



# Mine Health and Safety Act No. 29 of 1996 and Regulations



**MHSC**  
**Mine Health and Safety Council**

# **Mine Health and Safety Act 29 of 1996 and Regulations**

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## **MINE HEALTH AND SAFETY ACT 29 OF 1996**

[ASSENTED TO 30 MAY 1996]

[DATE OF COMMENCEMENT: 15 JANUARY 1997]

(Unless otherwise indicated)

*(English text signed by the President)*

**This Act has been updated to Government Gazette 32226 dated 12 May 2009**

**as amended by**

Mine Health and Safety Amendment Act 72 of 1997

Skills Development Amendment Act 31 of 2003

Mineral and Petroleum Resources Development Act 28 of 2002

Mine Health and Safety Amendment Act 74 of 2008

### **GENERAL NOTE**

**In terms of s.47 of Act No. 72 of 1997, the expressions in the principal Act are amended by-**

- (a) the substitution for the expression '*Chief Inspector*', of the expression '*Chief Inspector of Mines*';  
(b) the substitution for the expression '*Government Gazette*', of the expression '*Gazette*';  
(c) the substitution for the expressions '*owner*', '*owner or an employer*', '*owner or manager*', '*owner or the employer*', '*owner, manager*', '*management*' and '*an owner or employer*', of the expression '*employer*';  
(d) the substitution for the expressions '*owners*' and '*owners, employers and managers*', of the expression '*employers*';  
(e) the substitution of the expression '*manager*', except in sections 3 and 4, of the expression '*employer*';  
(f) the substitution for the expression '*a manager*', except in sections 3 and 4, of the expression '*an employer*'; and  
(g) the substitution for the expression '*managers*', except in sections 3 and 4 of the expression '*employers*'.

**In terms of s. 34 of the Mine Health and Safety Amendment Act 74 of 2008, the expressions in the principal Act are amended by-**

- (a) the substitution for the expression '*permanent committee(s)*', of the expression '*committee(s)*';  
(b) the substitution for the expression '*Minerals Act*', of the expression '*Mineral and Petroleum Resources Development Act, 2002*'.

## ACT

**To provide for protection of the health and safety of employees and other persons at mines and, for that purpose-**

- to promote a culture of health and safety;
- to provide for the enforcement of health and safety measures;
- to provide for appropriate systems of employee, *employer* and State participation in health and safety matters;
- to establish representative tripartite institutions to review legislation, promote health and enhance properly targeted research;
- to provide for effective monitoring systems and inspections, investigations and inquiries to improve health and safety;
- to promote training and human resources development;
- to regulate *employers'* and employees' duties to identify hazards and eliminate, control and minimise the risk to health and safety; and
- to entrench the right to refuse to work in dangerous conditions; and
- to give effect to the public international law obligations of the Republic relating to mining health and safety;
- and to provide for matters connected therewith.

(An italicised word or phrase indicates that the word or phrase is defined in section 102 of this Act)

## CHAPTER 1

### OBJECTS OF ACT

#### 1. Objects of Act

The objects of this Act are-

- (a) to protect the *health and safety* of persons at *mines*;
- (b) to require *employers* and *employees* to identify *hazards* and eliminate, control and minimise the *risks* relating to *health and safety* at *mines*;
- (c) to give effect to the public international law obligations of the Republic that concern *health and safety* at *mines*;
- (d) to provide for *employee* participation in matters of *health and safety* through *health and safety representatives* and the *health and safety committees* at *mines*;
- (e) to provide for effective monitoring of *health and safety* conditions at *mines*;
- (f) to provide for enforcement of *health and safety* measures at *mines*;
- (g) to provide for investigations and inquiries to improve *health and safety* at *mines*; and
- (h) to promote-

- (i). a culture of *health* and *safety* in the mining industry;
- (ii). training in *health* and *safety* in the mining industry; and
- (iii). co-operation and consultation on *health* and *safety* between the State, *employers*, *employees* and their representatives.

## CHAPTER 2

### HEALTH AND SAFETY AT MINES

#### 2. Employer to ensure safety

- (1) The *employer* of every *mine* that is being worked must-
  - (a) ensure, as far as *reasonably practicable*, that the *mine* is designed, constructed and equipped-
    - (i). to provide conditions for safe operation and a *healthy* working environment; and
    - (ii). with a communication system and with electrical, mechanical and other equipment as necessary to achieve those conditions;
  - (b) ensure, as far as *reasonably practicable*, that the *mine* is commissioned, operated, maintained and decommissioned in such a way that *employees* can perform their work without endangering the *health* and *safety* of themselves or of any other person;
  - (c) compile an annual report on *health* and *safety* at the *mine* including the statistics on *health* and *safety* that must be kept in terms of *this Act* and the annual medical report referred to in section 16; and
  - (d) if the *employer* is a body corporate, and employs more than 50 *employees*, publish and distribute the report referred to in paragraph (c), in an appropriate form, to the body corporate's shareholders or members.

[Para. (d) substituted by s. 1 of Act 72 of 1997]

- (2) The employer of a mine that is not being worked, but in respect of which a closure certificate in terms of the Minerals and Petroleum Resources and Development Act has not been issued, must take reasonable steps to continuously prevent injuries, ill-health, loss of life or damage of any kind from occurring at or because of the mine.

[Sub-s. (2) substituted by s. 1 of Act 74 of 2008]

#### 2A. Chief executive officer charged with certain functions

- (1) Every *chief executive officer* must take reasonable steps to ensure that the functions of the *employer* as contemplated in *this Act*, are properly performed.

- (2) Without derogating from any responsibility or liability of the *chief executive officer* in terms of subsection (1), the *chief executive officer* may entrust any function contemplated in the said subsection to any person under the control of the *chief executive officer*, which person must act subject to the control and directions of the *chief executive officer*.
- (3) If the *employer* is a body corporate, the functions of the *chief executive officer* contemplated in subsections (1) and (2) may be performed by a member of the board of the body corporate designated by the board.
- (4) Subsections (1), (2) and (3) do not relieve an *employer* of any duty imposed on *employers* by *this Act*.
- (5) Every person appointed in terms of section 3 or 4 (1) must perform their functions subject to the control and direction of the *chief executive officer* or the person contemplated in subsection (3).
- (6)
  - (a) The *employer* must inform the *Chief Inspector of Mines*, in writing, within seven days of the appointment of the *chief executive officer*.
  - (b) The information to the *Chief Inspector of Mines* include-
    - (i). the name of the *chief executive officer*;
    - (ii). the nature of such person's function; and
    - (iii). the name of persons who are managers under the supervision of the *chief executive officer*.

[S. 2A inserted by s. 2 of Act 72 of 1997 and Sub-s. (6) added by s. 2 of Act 74 of 2008]

### **3. Employer must appoint manager**

- (1) The *employer* of every *mine* that is being worked must-
  - (a) appoint one or more *managers* with the qualifications as may be prescribed to be responsible for the day to day management and operation of the *mine*, and if more than one *manager* is appointed, ensure that the *managers'* functions do not overlap;

[Para. (a) substituted by s. 3 of Act 72 of 1997]

- (b) supply the *managers* with the means to perform their functions; and
  - (c) take reasonable steps to ensure that the *managers* perform their functions.

- (2) The appointment of a *manager* does not relieve the *employer* of any duty imposed on *employers* by *this Act* or any other law.
- (3) If no *manager* is appointed in terms of subsection (1), the *employer* must perform the functions of a *manager* in terms of *this Act*.

#### **4. Employer may entrust functions to another person**

- (1) An *employer* may appoint any person except a *manager* to perform any function entrusted to the *employer* by sections 2 and 3 of *this Act*.

[Sub-s. (1) substituted by s. 4 of Act 72 of 1997]

- (2) An *employer* who appoints a person under subsection (1) must notify the *Chief Inspector of Mines* of that appointment within seven days, and must include in that notice-
  - (a) the name of the person appointed;
  - (b) the nature of the person's functions; and
  - (c) the names of the *manager* or *managers* over whom that person has control.
- (3) An *employer* who appoints a person under subsection (1) must-
  - (a) supply each person appointed with the means to perform their functions; and
  - (b) take reasonable steps to ensure that they perform their functions.
- (4) The appointment of a person under subsection (1) does not relieve the *employer* of any duty imposed on *employers* by *this Act* or any other law.

#### **5. Employer to maintain healthy and safe mine environment**

- (1) As far as *reasonably practicable*, every *employer* must provide and maintain a working environment that is safe and without *risk* to the *health* of *employees*.
- (2) As far as *reasonably practicable*, every *employer* must-
  - (a) identify the relevant hazards and assess the related risks to which persons who are not *employees* may be exposed; and
  - (b) ensure that persons who are not *employees*, but who may be directly affected by the activities at the *mine*, are not exposed to any *hazards* to their health and safety.

[S. 5 substituted by s. 5 of Act 72 of 1997]

## **6. Employer to ensure adequate supply of health and safety equipment**

- (1) Every *employer* must-
  - (a) supply all necessary *health and safety equipment* and *health and safety facilities* to each *employee*; and
  - (b) maintain, as far as *reasonably practicable*, that equipment and those facilities in a serviceable and hygienic condition.

[Sub-s. (1) substituted by s. 6 (a) of Act 72 of 1997]

- (2) Every *employer* must ensure that sufficient quantities of all necessary personal protective equipment are available so that every *employee* who is required to use that equipment is able to do so.
- (3) Every *employer* must take reasonable steps to ensure that all *employees* who are required to use personal protective equipment are instructed in the proper use, the limitations and the appropriate maintenance of that equipment.

[Sub-s. (3) substituted by s. 6 (b) of Act 72 of 1997]

## **7. Employer to staff mine with due regard to health and safety**

- (1) As far as *reasonably practicable*, every *employer* must-
  - (a) ensure that every *employee* complies with the requirements of *this Act*;
  - (b) institute the measures necessary to secure, maintain and enhance *health and safety*;
  - (c) provide persons appointed under subsections (2) and (4) with the means to comply with the requirements of *this Act* and with any instruction given by an *inspector*;

[Para. (c) substituted by s. 7 (b) of Act 72 of 1997]

- (d) consider an *employee's* training and capabilities in respect of *health and safety* before assigning a task to that *employee*; and
- (e) ensure that work is performed under the general supervision of a person trained to understand the *hazards* associated with the work and who has the authority to ensure that the precautionary measures laid down by the *employer* are implemented.

[Sub-s. (1) amended by s. 7 (a) of Act 72 of 1997]

- (2) The *employer* may appoint any person with qualifications as may be prescribed to perform any function of the *employer* in terms of *this Act*.

[Sub-s. (2) substituted by s. 7 (c) of Act 72 of 1997]

(3) The appointment of a person under subsection (2) does not relieve the *employer* of any duty imposed on *employers* by *this Act*.

(4) A *manager* may appoint any person with qualifications as may be *prescribed* to perform any function of the *manager* in terms of *this Act*.

[Sub-s. (4) added by s. 7 (d) of Act 72 of 1997]

(5) The appointment of a person under subsection (4) does not relieve the *manager* of any duty imposed on *managers* by *this Act*.

[Sub-s. (5) added by s. 7 (d) of Act 72 of 1997]

## **8. Employer must establish health and safety policy**

(1) Every *employer* must prepare a document that-

- (a) describes the organisation of work;
- (b) establishes a policy concerning the protection of *employees' health* and *safety* at work;
- (c) establishes a policy concerning the protection of persons who are not *employees* but who may be directly affected by the activities at the *mine*; and

[Para. (c) substituted by s. 8 of Act 72 of 1997]

- (d) outlines the arrangements for carrying out and reviewing policies.

(2) The *employer* must consult with the *health and safety committee* on the preparation or revision of the document and policies referred to in subsection (1).

(3) The *employer* must-

- (a) prominently and conspicuously display a copy of the document referred to in subsection (1) for *employees* to read; and
- (b) give each *health and safety representative* a copy of the document.

## **9. Codes of practice**

(1) Any *employer* may prepare and implement a code of practice on any matter affecting the *health* or *safety* of *employees* and other persons who may be directly affected by activities at the *mine*.

- (2) An *employer* must prepare and implement a code of practice on any matter affecting the *health or safety of employees* and other persons who may be directly affected by activities at the *mine* if the *Chief Inspector of Mines* requires it.
- (3) A code of practice required by the *Chief Inspector of Mines* must comply with guidelines issued by the *Chief Inspector of Mines*.
- (4) The *employer* must consult with the *health and safety committee* on the preparation, implementation or revision of any code of practice.
- (5) The *employer* must deliver a copy of every code of practice prepared in terms of subsection (2) to the *Chief Inspector of Mines*.
- (6) The *Chief Inspector of Mines* must review a code of practice of a *mine* if requested to do so by a *registered trade union* with members at the *mine*, or a *health and safety committee* or a *health and safety representative* at the *mine*.
- (7) At any time, an *inspector* may instruct an *employer* to review any code of practice within a specified period if that code of practice-
  - (a) does not comply with a guideline of the *Chief Inspector of Mines*; or
  - (b) is inadequate to protect the *health or safety of employees*.

## **10. Employer to provide health and safety training**

- (1) As far as *reasonably practicable*, every *employer* must-
  - (a) provide *employees* with any information, instruction, training or supervision that is necessary to enable them to perform their work safely and without *risk to health*; and
  - (b) ensure that every *employee* becomes familiar with work-related *hazards* and *risks* and the measures that must be taken to eliminate, control and minimise those *hazards and risks*.
- (2) As far as *reasonably practicable*, every *employer* must ensure that every *employee* is properly trained-
  - (a) to deal with every *risk to the employee's health or safety* that-
    - (i). is associated with any work that the *employee* has to perform; and
    - (ii). has been recorded in terms of section 11;
  - (b) in the measures necessary to eliminate, control and minimise those *risks to health or safety*;
  - (c) in the procedures to be followed to perform that *employee's work*; and
  - (d) in relevant emergency procedures.

- (3) In respect of every *employee*, the provisions of subsection (2) must be complied with-
  - (a) before that *employee* first starts work;
  - (b) at intervals determined by the *employer* after consulting the *health and safety committee*;
  - (c) before significant changes are introduced to procedures, mining and ventilation layouts, mining methods, plant or equipment and material; and
  - (d) before significant changes are made to the nature of that *employee's* occupation or work.
- (4) The *employer* must keep a record of all formal training provided in respect of each *employee* in terms of subsection (2).

[Sub-s. (4) added by s. 3 of Act 74 of 2008]

- (5) All *mines* must submit a workplace skills plan and the annual training reports to the Mining Qualifications Authority.

[Sub-s. (5) added by s. 3 of Act 74 of 2008]

## **11. Employer to assess and respond to risk**

- (1) Every *employer* must-
  - (a) identify the *hazards* to *health* or *safety* to which *employees* may be exposed while they are at work;
  - (b) assess the *risks* to *health* or *safety* to which *employees* may be exposed while they are at work;
  - (c) record the significant *hazards* identified and *risks* assessed; and
  - (d) make those *records* available for inspection by *employees*.
- (2) Every *employer*, after consulting the *health and safety committee* at the *mine*, must determine all measures, including changing the organisation of work and the design of safe systems of work, necessary to-
  - (a) eliminate any recorded *risk*;
  - (b) control the *risk* at source;
  - (c) minimise the *risk*; and
  - (d) in so far as the *risk* remains-
    - (i). provide for personal protective equipment; and
    - (ii). institute a programme to monitor the *risk* to which *employees* may be exposed.

- (3) Every *employer* must, as far as *reasonably practicable*, implement the measures determined necessary in terms of subsection (2) in the order in which the measures are listed in the paragraphs of that subsection.

(4) Every employer must-

- (a) periodically review the *hazards* identified and *risks* assessed, including the results of *occupational hygiene* measurements and *medical surveillance*, to determine whether further elimination, control and minimisation of *risk* is possible; and
- (b) consult with the *health and safety committee* on the review.

(5) Every employer must-

- (a) conduct an investigation into every
  - (i). accident that must be reported in terms of *this Act*;
  - (ii). *serious illness*; and
  - (iii). *health-threatening occurrence*;
    - (aA) commence an investigation referred to in paragraph (a) within 10 days from the date of such accident, *serious illness* or *health threatening occurrence*;

[Para. (aA) inserted by s. 4 (a) of Act 74 of 2008]

- (b) consult the *health and safety committee* on investigations in terms of this section;
- (c) conduct an investigation in co-operation with the *health and safety representative* responsible for the *working place* in which the investigation takes place;
- (d) on completion of each investigation, prepare a report that
  - (i). identifies the causes and the underlying causes of the accident, *serious illness* or *health-threatening occurrence*;

[Sub-para. (i) substituted by s. 4 (b) of Act 74 of 2008]

- (ii). identifies any unsafe conditions, acts, or procedures that contributed in any manner to the accident, *serious illness* or *health-threatening occurrence*; and
- (iii). makes recommendations to prevent a similar accident, *serious illness* or *health-threatening occurrence*; and
- (e) deliver a copy of the report referred to in paragraph (d) within 30 days from the date of the accident, *serious illness* or *health-threatening occurrence* being investigated to the *Principal Inspector of Mines* and the *health and safety committee*. If there is no *health and safety committee* the *employer* must deliver a copy of the report to the *health and safety representative* responsible for the *working place*.

[Para. (e) substituted by s. 4 (c) of Act 74 of 2008]

(5A) An investigation in terms of subsection (5) must be completed within 30 days after the accident, *serious illness* or *health-threatening occurrence* being investigated or such longer period as the *Principal Inspector of Mines* may permit.

[Sub-s. (5A) inserted by s. 4 (d) of Act 74 of 2008]

(5B) The *employer* must notify the *Principal Inspector of Mines* of any accident or occurrence at a mine that results in-

- (a) the serious injury;
- (b) illness; or
- (c) death, of any person, in order to allow the *Principal Inspector of Mines* to instruct an *Inspector* to conduct an investigation simultaneously with the *employer* as required in section 11 (5) (a).

[Sub-s. (5B) inserted by s. 4 (d) of Act 74 of 2008]

- (6) An investigation referred to in subsection (5) may be held jointly with an investigation conducted by an *inspector* in terms of section 60.
- (7) If there is no *health and safety committee* at a *mine*, the consultations required in this section must be held with-
  - (a) the *health and safety representatives*; or
  - (b) if there is no *health and safety representative* at the *mine*, with the *employees*.
- (8) In the event of an incident in which a person died, or was injured to such an extent that he or she is likely to die, or suffered the loss of a limb or part of a limb, no person may without the consent of the *Principal Inspector of Mines* disturb the site at which the incident occurred or remove any article or substance involved in the incident: Provided that an article or substance may only be removed if it is necessary to-
  - (a) prevent any further incident;
  - (b) remove the injured or dead; or
  - (c) rescue any person from danger.

[Sub-s. (8) added by s. 4 (e) of Act 74 of 2008]

## **12. Employer to conduct occupational hygiene measurements**

- (1) The *employer* must engage the part-time or full-time services of a person qualified in *occupational hygiene* techniques to measure levels of exposure to hazards at the mine-
  - (a) if required to do so by regulation or a notice in the *Gazette*; or
  - (b) if, after assessing risks in terms of section 11 (1), it is necessary to do so.
- (2) Every system of *occupational hygiene* measurements must-
  - (a) be appropriate, considering the *hazards* to which the *employees* are or may be exposed; and
  - (b) be designed so that it provides information that the *employer* can use in determining measures to eliminate, control and minimise the *health risks* and *hazards* to which *employees* are or may be exposed.
- (3) The *employer* must keep a *record* of all *occupational hygiene* measurements in terms of subsection (1) in a manner that can be linked as far as practicable to each *employee's record of medical surveillance*.

## **13. Employer to establish system of medical surveillance**

- (1) The *employer* must establish and maintain a system of *medical surveillance* of *employees* exposed to *health hazards*-
  - (a) if required to do so by *regulation* or a notice in the *Gazette*; or
  - (b) if, after assessing *risks* in terms of section 11 (1), it is necessary to do so.
- (2) Every system of *medical surveillance* must-
  - (a) be appropriate, considering the *health hazards* to which the *employees* are or may be exposed;
  - (b) be designed so that it provides information that the *employer* can use in determining measures to-
    - (i). eliminate, control and minimise the *health risk* and *hazards* to which *employees* are or may be exposed; or
    - (ii). prevent, detect and treat *occupational diseases*; and
  - (c) consist of an initial medical examination and other medical examinations at appropriate intervals.
- (3) Every *employer* who establishes or maintains a system of *medical surveillance* must-
  - (a) engage the part-time or full-time services of-
    - (i). an *occupational medical practitioner*; and
    - (ii). .....

[Sub-para. (ii) deleted by s. 5 (a) of Act 74 of 2008]

- (b) supply the practitioners with the means to perform their functions; and
- (c) keep a record of *medical surveillance* for each *employee* exposed to a *health hazard*.

(4) .....

[Sub-s. (4) deleted by s. 5 (b) of Act 74 of 2008]

(4A) The *employer* must inform the *Principal Inspector of Mines*, in writing, within seven days of the appointment of the *occupational medical practitioner*.

[Sub-s. (4A) inserted by s. 5 (c) of Act 74 of 2008]

(4B) The information submitted in terms of subsection (4A) must include-

- (a) the name of a *occupational medical practitioner*;
- (b) his or her practice number; and
- (c) whether the *occupational medical practitioner* is engaged full time or part time.

[Sub-s. (4B) inserted by s. 5 (c) of Act 74 of 2008]

(5) An *occupational medical practitioner* must take every measure that is reasonably practicable to-

- (a) promote the *health and safety* of *employees* at the *mine*; and
- (b) assist *employees* in matters related to *occupational medicine*.

(6) If any *employee* is declared unfit to perform work as a result of an *occupational disease*, the *employer* must conduct an investigation in terms of section 11 (5).

(7) If an *employee* is temporarily unfit to perform work as a result of any *occupational disease*, but there is a reasonable expectation that the *employee's health* will improve so that the *employee* can return to work, the *occupational medical practitioner* must record that fact and notify both the *employer* and *employee* of it.

(8) The *employer* must-

- (a) retain the records referred to in sections 12 (3), 13 (3) (c) and 14 (1) until the *mine* closes; and
- (b) when the *mine* closes, deliver those *records* to the *Medical Inspector*.

#### **14. Record of hazardous work**

- (1) The employer at every *mine* must keep a service record, in the prescribed form, of *employees* at the *mine* who perform work in respect of which *medical surveillance* is conducted in terms of section 13.
- (2) The employer must deliver to the *Medical Inspector* a copy of the relevant part of the record kept in terms of subsection (1)-
  - (a) when an *employee* whose name appears in that record ceases to be employed at that *mine*; or
  - (b) when required to do so by the *Chief Inspector of Mines*.

#### **15. Record of medical surveillance**

- (1) An *employee's* record of *medical surveillance* kept in terms of section 13 (3) (c) must be kept confidential and may be made available only-
  - (a) in accordance with the ethics of medical practice;
  - (b) if required by law or court order; or
  - (c) if the *employee* has consented, in writing, to the release of that information.
- (2) Any person required to maintain an *employee's* record of *medical surveillance* must-
  - (a) store it safely; and
  - (b) not destroy it or dispose of it, or allow it to be destroyed or disposed of, for 40 years from the last date of the *medical surveillance* of that *employee*.

#### **16. Annual medical reports**

- (1) Every *occupational medical practitioner* at a *mine* must compile an annual report covering *employees* at that *mine*, giving an analysis of the *employees' health* based on the *employees' records of medical surveillance*, without disclosing the names of the *employees*.
- (2) The annual report compiled in terms of subsection (1) must be given to the employer, who must deliver one copy of the report to each of-
  - (a) .....
  - (b) the *health and safety committees*, or if there is no *health and safety committee*, the *health and safety representatives*; and
  - (c) the *Medical Inspector*.

[Para. (a) deleted by s. 9 of Act 72 of 1997]

- (b) the *health and safety committees*, or if there is no *health and safety committee*, the *health and safety representatives*; and
- (c) the *Medical Inspector*.

## **17. Exit certificates**

- (1) If an *employee* was subject to, or was required to be subject to, *medical surveillance* in terms of *this Act* and such *employee*'s employment at a *mine* is terminated for any reason, the *employer* must arrange an exit medical examination of the *employee*.

[Sub-s. (1) substituted by s. 10 of Act 72 of 1997]

- (2) The examination referred to in subsection (1) must be held before, or within 30 days after, termination of employment.

[Sub-s. (2) substituted by s. 6 of Act 74 of 2008]

- (3) The *employee* must attend the examination.
- (4) The *occupational medical practitioner* conducting the examination must-
  - (a) produce an exit certificate with respect to that *employee* indicating the results of all *medical surveillance* and the presence or absence of any *occupational disease*; and
  - (b) enter a copy of the exit certificate into the *employee's record of medical surveillance*.

## **18. Costs of examination**

The *employer* must pay the costs of all clinical examinations and medical tests performed in terms of *this Act* unless *this Act* expressly provides otherwise.

## **19. Employees' right to information**

- (1) An *employee* may request, and the *employer* must then provide, a copy of the record or of any part of it that-
  - (a) is being kept in terms of sections 12 (3) and 13 (3) (c); and
  - (b) relates to that *employee*.
- (2) The *occupational medical practitioner* conducting an examination in terms of section 17 must provide the *employee* with a copy of the exit certificate prepared as a result of that examination.

## **20. Employee may dispute finding of unfitness to perform work**

- (1) An *employee* may appeal to the *Medical Inspector* against-
  - (a) a decision that the *employee* is unfit to perform any particular category of work; or
  - (b) any finding of an *occupational medical practitioner* contained in an exit certificate prepared in terms of section 17.

- (2) An appeal under subsection (1) must-
- (a) be lodged with the *Medical Inspector* within 30 days of the relevant decision or finding, or such further period as may be *prescribed*; and

[Para. (a) substituted by s. 11 of Act 72 of 1997]

- (b) state the grounds of the appeal.
- (3) When the *Medical Inspector* receives an appeal under subsection (1), the *Medical Inspector* must choose a *medical practitioner* who is not employed by the *employer* of the *employee*, and arrange for that *employee* to be re-examined by that *medical practitioner*, at the cost of the *Chief Inspector of Mines*.
- (4) The *medical practitioner* referred to in subsection (3) must report to the *Medical Inspector*, who must then consider the appeal and-
- (a) confirm, set aside or vary the decision or finding of the *occupational medical practitioner*; or
- (b) substitute any other decision or finding for that decision or finding.
- (5) Nothing in this section precludes an *employee* from-
- (a) obtaining and paying for a medical opinion from any other *medical practitioner*; or
- (b) pursuing any other legal remedy.
- (6) For the purposes of this section, 'employee' includes any applicant for employment who has previously been employed at a *mine*.
- (7) An *employee* lodging an appeal under subsection (1) may not be dismissed on any grounds relating to unfitness to perform work, pending the outcome of the appeal.

[Sub-s. (7) added by s. 7 of Act 74 of 2008]

## **21. Manufacturer's and supplier's duty for health and safety**

- (1) Any person who-
- (a) designs, manufactures, repairs, imports or supplies any article for use at a *mine* must ensure, as far as *reasonably practicable*-
- (i). that the article is safe and without *risk* to *health* and *safety* when used properly; and
- (ii). that it complies with all the requirements in terms of *this Act*;

- (b) erects or installs any article for use at a *mine* must ensure, as far as *reasonably practicable*, that nothing about the manner in which it is erected or installed makes it unsafe or creates a *risk to health and safety* when used properly; or
  - (c) designs, manufactures, erects or installs any article for use at a *mine* must ensure, as far as *reasonably practicable*, that ergonomic principles are considered and implemented during design, manufacture, erection or installation.
- (2) Any person who bears a duty in terms of subsection (1) is relieved of that duty to the extent that is reasonable in the circumstances, if-
- (a) that person designs, manufactures, repairs, imports or supplies an article for or to another person; and
  - (b) that other person provides a written undertaking to take specified steps sufficient to ensure, as far as *reasonably practicable*, that the article will be safe and without *risk to health and safety* when used properly and that it complies with all prescribed requirements.
- (3) Any person who designs or constructs a building or structure, including a temporary structure, for use at a *mine* must ensure, as far as *reasonably practicable*, that the design or construction is safe and without *risk to health and safety* when used properly.
- (4) Every person who manufactures, imports or supplies any hazardous substance for use at a *mine* must-
- (a) ensure, as far as *reasonably practicable*, that the *substance* is safe and without *risk to health and safety* when used, handled, processed, stored or transported at a *mine* in accordance with the information provided in terms of paragraph (b);
  - (b) provide adequate information about-
    - (i). the use of the *substance*;
    - (ii). the *risks to health and safety* associated with the *substance*;
    - (iii). any restriction or control on the use, transport and storage of the *substance*, including but not limited to exposure limits;
    - (iv). the *safety* precautions to ensure that the *substance* is without *risk to health or safety*;
    - (v). the procedure to be followed in the case of an accident involving excessive exposure to the *substance*, or any other emergency involving the *substance*; and
    - (vi). the disposal of used containers in which the *substance* has been stored and any waste involving the *substance*; and

- (c) ensure that the information provided in terms of paragraph (b) complies with the provisions of the Hazardous Substances Act, 1973 (Act 15 of 1973).

## **22. Employees' duties for health and safety**

Every *employee* at a mine, while at that *mine*, must-

- (a) take reasonable care to protect their own *health and safety*;
- (b) take reasonable care to protect the *health and safety* of other persons who may be affected by any act or omission of that *employee*;
- (c) use and take proper care of protective clothing, and other *health and safety* facilities and *equipment* provided for the protection, *health or safety* of that *employee* and other *employees*;
- (d) report promptly to their immediate supervisor any situation which the *employee* believes presents a *risk* to the *health or safety* of that *employee* or any other person, and with which the *employee* cannot properly deal;
- (e) co-operate with any person to permit compliance with the duties and responsibilities placed on that person in terms of *this Act*; and
- (f) comply with prescribed *health and safety* measures.

## **23. Employees' right to leave dangerous working place**

- (1) The *employee* has the right to leave any *working place* whenever-
  - (a) circumstances arise at that *working place* which, with reasonable justification, appear to that *employee* to pose a serious danger to the *health or safety* of that *employee*; or
  - (b) the *health and safety representative* responsible for that *working place* directs that *employee* to leave that *working place*.
- (2) Every *employer*, after consulting the *health and safety committee* at the *mine*, must determine effective procedures for the general exercise of the rights granted by subsection (1), and those procedures must provide for-
  - (a) notification of supervisors and *health and safety representatives* of dangers which have been perceived and responded to in terms of subsection (1);
  - (b) participation by representatives of *employer* and representatives of the *employees* in endeavouring to resolve any issue that may arise from the exercise of the right referred to in subsection (1);
  - (c) participation, where necessary, by an *inspector* or technical adviser to assist in resolving any issue that may arise from the exercise of the right referred to in subsection (1);

- (d) where appropriate, the assignment to suitable alternative work of any *employee* who left, or refuses to work in, a *working place* contemplated in subsection (1); and

[Para. (d) substituted by s. 12 of Act 72 of 1997]

- (e) notification to any employee who has to perform work or is requested to perform work in a *working place* contemplated in subsection (1) of the fact that another *employee* has refused to work there and of the reason for that refusal.
- (3) If there is no *health and safety committee* at a *mine*, the consultation required in subsection (2) must be held with-
- the *health and safety representatives*; or
  - if there is no *health and safety representative* at the *mine*, with the *employees*.
- (4) The *Minister*, by notice in the *Gazette*, must determine minimum requirements for the procedures contemplated in subsection (2).

[Sub-s. (4) added by s. 8 of Act 74 of 2008]

## **24. Employees not to pay for safety measures**

No person may make any deduction from an *employee's* wages, or permit an *employee* to make any payment to any person, in respect of anything which the *employer* is obliged to provide or to do in terms of *this Act* in the interest of the *health and safety* of an *employee*.

# **CHAPTER 3**

## **HEALTH AND SAFETY REPRESENTATIVES AND COMMITTEES**

### **25. Health and safety representatives and committees**

- Every *mine* with 20 or more *employees* must have a *health and safety representative* for each shift at each designated *working place* at the *mine*.
- Every *mine* with 100 or more *employees* must have one or more *health and safety committees*.
- A *health and safety representative* or a member of a *health and safety committee* does not incur any civil liability only because of doing or failing to do something which a *health and safety representative* or a member of a *health and safety committee* may do or is required to do in terms of *this Act*.

## 26. Negotiations and consultations before appointment of representatives

- (1) The *employer* of any *mine* where there must be a *health and safety representative* in terms of section 25 must meet, within the *prescribed* period, with the *representative trade union* of the *mine* to enter into negotiations to conclude a collective agreement concerning—
  - (a) the designation of *working places*;
  - (b) the number of full-time *health and safety representatives*;
  - (c) the election or appointment of *health and safety representatives*;
  - (d) the terms of office of *health and safety representatives* and the circumstances and the manner in which they may be removed from office;
  - (e) the manner in which vacancies are to be filled;
  - (f) the manner in which *health and safety representatives* must perform their functions in terms of *this Act*;
  - (g) the procedures for the effective exercise of the right to withdraw from serious danger in terms of section 23;
  - (h) circumstances and the manner in which meetings referred to in sections 30 (1) (i) and 31 (2) must be held;
  - (i) the facilities and assistance that must be provided to a *health and safety representatives* in terms of section 31 (3);
  - (j) the training of *health and safety representatives*;
  - (k) a procedure that provides for the conciliation and arbitration of disputes arising from the application or the interpretation of the collective agreement or any provision of this Chapter;

[Para. (k) substituted by s. 13 (a) of Act 72 of 1997]

- (l) any *prescribed* matter; and
  - (m) any other matter which the parties believe will promote *health and safety* at the *mine* or *mines* concerned.
- (2) Before concluding a collective agreement referred to in subsection (1) with the *representative trade union*, the *employer* must consult on the matters referred to in that subsection with all other *registered trade unions* with members at that *mine*.
- (3) A collective agreement referred to in subsection (1) may include two or more *employers* as parties to the agreement.

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- (4) To the extent that an agreement concluded in terms of subsection (1) deals with any matter regulated by this Chapter or by any *regulation* regarding any matter regulated by this Chapter, the provisions of this Chapter or such *regulation* do not apply.

[Sub-s. (4) substituted by s. 13 (b) of Act 72 of 1997]

- (5) The provisions applicable to collective agreements in terms of the *Labour Relations Act*, read with the changes required by the context, apply to agreements concluded in terms of subsection (1).
- (6) If there is no *representative trade union* at the *mine*, the *employer* must within the *prescribed period*–  
(a) consult with the *registered trade unions* with members at the *mine* on the matters referred to in subsection (1); and  
(b) endeavour to reach agreement on the number of full-time *health and safety representatives* at the *mine*.
- (7) If there is no *registered trade union* with members at the *mine*, the *employer* must, within the *prescribed period*–  
(a) consult with the *employees* or any elected representative of the *employees* on the matters referred to in subsection (1); and  
(b) endeavour to reach agreement on the number of full-time *health and safety representatives* at the *mine*.
- (8) A dispute exists if either–  
(a) no collective agreement in terms of subsection (1) is concluded on the number of full-time *health and safety representatives* at a *mine*; or  
(b) no agreement is reached in terms of either subsection (6) (b) or (7) (b).
- (9) When a dispute exists in terms of subsection (8), any party to the dispute may refer it to the *Commission*.
- (10) When a dispute is referred to the *Commission* under subsection (9), the *Commission* must attempt to resolve it through conciliation.
- (11) If a dispute remains unresolved, any party to the dispute may request that it be resolved through arbitration, in which case the *Commission*, taking into account the guidelines in Schedule 1, must determine the number of full-time *health and safety representatives*.

(12) Nothing in this section precludes the *employer* from consulting with any *employee* who is not a member of a *registered trade union* or any representative of those *employees* concerning the matters referred to in subsection (1).

## **27. Designation of working places**

- (1) If a collective agreement is concluded after the negotiations and consultations referred to in section 26, the *employer* must designate *working places* at the *mine* in accordance with that agreement.
- (2) If no collective agreement is concluded after the negotiations and consultations referred to in section 26, the *employer* must designate *working places* at the *mine* so that-
  - (a) every *working place* at the *mine* is designated;
  - (b) no *health and safety representative* is responsible for more than 100 *employees*; and
  - (c) no *health and safety representative* is responsible for more than 50 *employees* if the designated *working place* includes separate *working places*.

## **28. Qualifications of representatives**

- (1) To qualify to serve as a *health and safety representative* referred to in section 25 (1) an *employee* must-
  - (a) be employed in a full-time capacity in the designated *working place*; and
  - (b) be acquainted with conditions and activities at the designated *working place*.
- (2) To qualify to serve as a full-time *health and safety representative* an *employee* must-
  - (a) be employed in full-time capacity at the *mine*;
  - (b) comply with any other qualifications which may be-
    - (i). agreed by a *health and safety committee*; or
    - (ii). prescribed.

## **29. Election and appointment of representatives**

- (1) At a *mine* referred to in section 25 (1), the *employees* in a designated *working place* may elect from among themselves *health and safety representatives*.

- (2) The *employees* at the *mine* may elect from among themselves any full-time *health and safety representatives* that may be agreed or determined in terms of section 26.
- (3) The elections referred to in subsections (1) and (2) must be conducted in the *prescribed* manner.
- (4) The *employee* selected as representatives in terms of this section must be appointed by the *employer* in the *prescribed* manner.

### **30. Rights and powers of representatives**

- (1) A *health and safety representative* may-
  - (a) represent *employees* on all aspects of *health and safety*;
  - (b) direct any *employee* to leave any *working place* whenever circumstances arise at that *working place* which, with reasonable justification, appears to the *health and safety representative* to pose a serious danger to the *health or safety* of that *employee*;

[Para. (b) substituted by s. 14 of Act 72 of 1997]

- (c) assist any *employee* who has left a *working place* in terms of section 23;
  - (d) identify potential *hazards* and *risks* to *health or safety*;
  - (e) make representations or recommendations to the *employer* or to a *health and safety committee* on any matter affecting the *health or safety* of *employees*;
  - (f) inspect any relevant document which must be kept in terms of *this Act*;
  - (g) request relevant information and reports from an *inspector*;
  - (h) with the approval of the *employer*, be assisted by or consult an adviser or technical expert who may be either another *employee* or any other person;
  - (i) attend any meeting of a *health and safety committee*-
    - (i). of which that representative is a member; or
    - (ii). which will consider a representation or recommendation made by that representative;
  - (j) request-
    - (i). an *inspector* to conduct an investigation in terms of section 60; or
    - (ii). the *Chief Inspector of Mines* to conduct an inquiry in terms of section 65;
  - (k) participate in consultations on *health and safety* with-
    - (i). the *employer* or person acting on behalf of the *employer*; or
    - (ii). an *inspector*;
  - (l) participate in any *health and safety* inspection by-

- (i). the *employer* or person acting on behalf of an *employer*; or
  - (ii). an *inspector*;
- (m) inspect *working places* with regard to the *health and safety of employees* at intervals agreed with the *employer*;
  - (n) participate in any internal *health or safety audit*;
  - (o) investigate complaints by any *employee* relating to *health and safety* at work;
  - (p) examine the causes of accidents and other dangerous occurrences in collaboration with the *employer* or person acting on behalf of the *employer*;
  - (q) visit the site of an accident or dangerous occurrence at any reasonable time;
  - (r) attend a post-accident inspection;
  - (s) co-operate with the *employer* in the conducting of investigations in terms of section 11 (5);
  - (t) participate in an inquiry held in terms of section 65; and
  - (u) perform the functions-
    - (i). agreed by the *health and safety committee*; or
    - (ii). prescribed.
- (2) The rights and powers referred to in subsection (1) apply to *health and safety representatives* referred to in section 25 (1) only in respect of the working places for which they are responsible.
  - (3) If a *health and safety representative* requests information or reports under subsection (1) (g), the inspector must supply the representative with the information or reports in their possession.
  - (4) An *employer* may not unreasonably withhold the approval required in terms of subsection (1) (h).
  - (5) A *health and safety representative* intending to exercise the right to inspect *working places* under subsection (1) (m) must-
    - (a) give the *employer* reasonable notice of the inspection; and
    - (b) permit the *employer* to participate in the inspection.
  - (6) *Health and safety representatives* are entitled to perform their functions and to receive training during ordinary working hours.

- (7) Any time reasonably spent by a *health and safety representative* for a purpose referred to in subsection (6) must be considered for all purposes to be time spent carrying out the employment duties of that representative.

### **31. Duty to compensate and assist representatives**

- (1) The *employer* must pay every full-time *health and safety representative* appropriate remuneration at least equal to the remuneration the representative earned immediately before being appointed as a full-time *health and safety representative*.
- (2) The *employer* must provide reasonable time and facilities for *employees* to meet monthly with their *health and safety representatives* in order to consider-
  - (a) *health and safety* in their *working places*; and
  - (b) reports by the representatives on the performance of their functions.
- (3) The *employer* must provide *health and safety representatives* with-
  - (a) the facilities and assistance reasonably necessary to perform their functions;
  - (b) training that is reasonably required to enable them to perform their functions; and
  - (c) time off from work, without loss of remuneration, to attend any training course that is agreed or prescribed.
- (4) Unless otherwise agreed, the assistance referred to in subsection (3) (a) does not include any costs associated with advisers or independent experts contemplated in either section 30 (1) (h) or section 36 (1) (g).
- (5) On the completion of a term of office as a full-time *health and safety representative*, the *health and safety representative* is entitled to-
  - (a) employment in the same position held immediately before being appointed as a full-time *health and safety representative*; or
  - (b) employment in a position that is at least as favourable as the position held immediately before being appointed a full-time *health and safety representative*.

### **32. Duty to inform representatives**

Every *employer* must notify the *health and safety representatives* concerned and, if there is a *health and safety committee*, the *employee co-chairperson* of that committee-

- (a) in good time, of inspections, investigations or inquiries of which an inspector has notified the *employer*; and

- (b) as soon as practicable, of any accident, *serious illness or health-threatening occurrence*, or other dangerous event.

### **33. Negotiation and consultation on establishment of committees**

- (1) The *employer* of any mine in respect of which a *health and safety committee* must be established in terms of section 25 (2), must meet, within the prescribed period, with the *representative trade union* at the *mine* to enter into negotiations to conclude a collective agreement concerning-
- (a) the number of *health and safety committees* to be established at the *mine* and the *working places* for which they will be responsible;
  - (b) the number of *employer* and *employee* representatives on the committees;
  - (c) the election and appointment of members of *health and safety committees*;
  - (d) the terms of office of members of the *health and safety committee* and the circumstances and the manner in which the members may be removed from office;
  - (e) the manner in which vacancies are to be filled;
  - (f) the circumstances and the manner in which meetings may be held;
  - (g) the facilities and assistance which must be provided to *health and safety committees* in terms of section 37 (a); and
  - (h) a procedure that provides for the conciliation and arbitration of disputes arising from the application or interpretation of the collective agreement or any provision of this Chapter.

[Para. (h) substituted by s. 15 (a) of Act 72 of 1997]

- (2) Before concluding a collective agreement referred to in subsection (1) with the *representative trade union*, the *employer* must consult on the matters referred to in that subsection with all other *registered trade unions* with members at that *mine*.
- (3) A collective agreement referred to in subsection (1) may include two or more *employers* as parties to the agreement.
- (4) To the extent that an agreement concluded in terms of subsection (1) deals with any matter regulated by this Chapter or by any *regulation* regarding any matter regulated by this Chapter, the provisions of this Chapter or such *regulation* do not apply.

[Sub-s. (4) substituted by s. 15 (b) of Act 72 of 1997]

- (5) The provisions applicable to collective agreements in terms of the *Labour Relations Act*, read with the changes required by the context, apply to agreements concluded in terms of subsection (1).
- (6) If there is no *representative trade union* at the *mine*, the *employer* must consult, within the *prescribed* period, with the *registered trade unions* with members at the mine on the matters referred to in subsection (1).
- (7) If there is no *registered trade union* with members at the *mine*, the *employer* must, within the *prescribed* period, consult with the *employees* or any elected representatives of the employees on the matters referred to in subsection (1).
- (8) The negotiations and consultations referred to in this section may be held at the same time as those referred to in section 26.

#### **34. Establishment of health and safety committees**

- (1) If a collective agreement is concluded in terms of section 33 (1), *health and safety committees* must be established in terms of that agreement.
- (2) If no collective agreement is concluded in terms of section 33 (1), the *employer* must establish *health and safety committees* after the consultation referred to in section 33 (6) or (7) and in accordance with this section and the *regulations*.
- (3) A *health and safety committee* must consist of-
  - (a) at least four *employee* representatives; and
  - (b) a number of *employer* representatives equal to or less than the number of *employee* representatives.
- (4) The *health and safety representatives* must appoint the *employee* representatives on the *health and safety committee*. The *employee* representatives must be-
  - (a) broadly representative of the *working places* at the *mine*; and
  - (b) *employees* at that *mine*.
- (5) No more than two of the *employee* representatives may be appointed from full-time *employees* who are not *health and safety representatives*, unless all of the *health and safety representatives* have been appointed to the committee and there are still *employee* committee positions to be filled.
- (6) The *employer* must appoint the *employer representatives* on the *health and safety committee*. The persons appointed must include persons who have authority to develop and implement *health and safety* policies at the *mine*.

### **35. Committee procedures**

- (1) The *employee* and *employer* representatives on a *health and safety committee* must each elect a chairperson from their number. Unless otherwise agreed by the committee, the two chairpersons must alternate as the presiding chairperson of the committee.
- (2) Unless otherwise agreed by a *health and safety committee*, the committee must meet at least once a month.
- (3) A *health and safety committee* may determine its own rules and procedures.
- (4) Persons other than *employee* or *employer* representatives may be invited to attend meetings of the *health and safety committee* and to participate in its proceedings.

### **36. Rights and powers of health and safety committee**

- (1) A *health and safety committee* may-
  - (a) represent *employees* on all aspects of *health and safety*;
  - (b) participate in consultations on any *health and safety* matter listed in the Schedule referred to in section 97 (2);
  - (c) request the *Chief Inspector of Mines* to review any code of practice;
  - (d) request relevant information from any person who is required, in terms of *this Act*, to provide that information to the committee;
  - (e) agree on additional qualifications or functions of *health and safety representatives*;
  - (f) request-
    - (i). an *inspector* to conduct an investigation in terms of section 60; or
    - (ii). the *Chief Inspector of Mines* to conduct an inquiry in terms of section 65;
  - (g) with the approval of the *employer*, be assisted by or consult an adviser or a technical expert who may be either another *employee* or any other person;
  - (h) take reasonable time to prepare for each meeting of the committee; and
  - (i) take reasonable time to report on meetings of the committee to the *health and safety representatives* at the *mine*.
- (2) No *employer* may unreasonably withhold the approval required in terms of subsection (1) (g).
- (3) Members of *health and safety committees* are entitled to perform their functions and to receive training during ordinary working hours.

- (4) Any time reasonably spent by a member of a *health and safety committee* for a purpose referred to in subsection (3) must be considered for all purposes to be time spent carrying out the employment duties of that member.

### **37. Duty to support committee**

The *employer* must-

- (a) provide the *health and safety committee* with the facilities and assistance reasonably necessary to perform its functions;
- (b) supply the *health and safety committee* with the annual report referred to in section 2 (1) (c) and any information necessary to perform its functions.

### **38. Disclosure of information**

- (1) Whenever an *employer*, *inspector* or a person who conducts an inquiry in terms of section 65, is required by the provisions of this Chapter to supply information or reports to a *health and safety representative* or to the *health and safety committee*, that *employer*, *inspector* or person-
  - (a) must not disclose any information that is private personal information relating to an *employee*, unless the *employee* consents in writing to the disclosure of that information; and
  - (b) is not required to supply any information-
    - (i). that is legally privileged;
    - (ii). that the *employer*, *inspector* or person could not disclose without contravening a prohibition imposed upon the *employer* by any law or court order; or
    - (iii). that is confidential and, if disclosed, may cause substantial harm to an *employee* or the *employer*.
- (2) No *employee* may unreasonably withhold the consent required in terms of subsection (1) (a).

### **39. Disputes concerning disclosure of information**

- (1) If there is a dispute about what information is required to be disclosed in terms of the provisions of this Chapter, any party to the dispute may refer the dispute in writing to the *Commission*.
- (2) The party who refers a dispute to the *Commission* must satisfy it that a copy of the referral has been served on all the other parties to the dispute.
- (3) The *Commission* must attempt to resolve the dispute through conciliation.

- (4) If the dispute remains unresolved, any party to the dispute may request that the dispute be resolved through arbitration.
- (5) A commissioner appointed to arbitrate a dispute must first decide whether or not the information is required to be supplied in terms of the provisions of this Chapter.
- (6) If the commissioner decides that the information is required and if it is information contemplated in section 38 (1) (a) or (b) (iii), the commissioner must balance the harm that disclosure is likely to cause to an *employee* or *employer* or any other person who employs *employees*, against the harm that the failure to disclose the information is likely to cause to the ability of *health* and *safety representatives* or members of the *health and safety committee* to perform their functions effectively.

[Sub-s. (6) substituted by s. 16 of Act 72 of 1997]

- (7) If the commissioner decides that the balance of harm favours the disclosure of the information, the commissioner may order the disclosure of the information on terms designed to limit the harm likely to be caused to the *employee* or the *employer*.
- (8) When making an order under subsection (7), the commissioner must take into account any previous breach of confidentiality in respect of information disclosed in terms of the provisions of this Chapter, and may refuse to order the disclosure of the information or any other confidential information which might otherwise be disclosed for a period specified in the arbitration award.
- (9) In any dispute about an alleged breach of confidentiality, the commissioner may order that the right to disclosure of information in terms of the provisions of this Chapter be withdrawn for a period specified in the arbitration award.

## **40. Disputes concerning this Chapter**

- (1) Any party to a dispute about the interpretation or application of any provision of this Chapter, other than a dispute contemplated in section 26 (8) or 39, may refer the dispute in writing to the *Commission*.
- (2) The party who refers a dispute to the *Commission* must satisfy it that a copy of the referral has been served on all the other parties to the dispute.

- (3) The *Commission* must attempt to resolve the dispute through conciliation.
- (4) If the dispute remains unresolved, any party to the dispute may request that the dispute be resolved through arbitration as soon as possible.
- (5) The provisions relating to arbitration in the *Labour Relations Act*, read with changes required by the context, apply to an arbitration referred to in sections 26 (11) and 39 and subsection (4).

## CHAPTER 4

### TRIPARTITE INSTITUTIONS

#### 41. Establishment of tripartite institutions

- (1) A Mine Health and Safety Council is hereby established to advise the Minister on *health and safety at mines*.
- (2) A *committee, ad hoc committee or subcommittee* may when necessary be established, which *committee* may include-
  - (a) the Mining Regulation Advisory Committee;
  - (b) the Mining Occupational Health Advisory Committee; and
  - (c) the Safety in Mines Research Advisory Committee.

[Sub-s. (2) amended by s. 9 of Act 74 of 2008]

- (3) A Mining Qualifications Authority is hereby established to advise the *Minister* on-
  - (a) qualifications and learning achievements in the mining industry to improve *health and safety standards* through proper training and education;

[Para. (a) substituted by s. 17 (a) of Act 72 of 1997]

- (b) standards and competency setting, assessment, examinations, quality assurance and accreditation in the mining industry; and
- (c) proposals for the registration of education and training standards and qualifications in the mining industry on the National Qualifications Framework referred to in the South African Qualifications Authority Act, 1995 (Act 58 of 1995).

[Para. (c) substituted by s. 17 (b) of Act 72 of 1997]

## 42. Mine Health and Safety Council

- (1) The *Council* consists of-
  - (a) five members representing *employers* in the mining industry;
  - (b) five members representing *employees* in the mining industry;
  - (c) four members representing departments of the State; and
  - (d) the *Chief Inspector of Mines*, who must chair the *Council*.
- (2) The *Minister* must appoint the members of the *Council* in accordance with the *regulations*.

[Sub-s. (2) substituted by s. 10 (a) of Act 74 of 2008]

- (2A) The *Council* may appoint members to *committees, ad hoc, subcommittees and other committees*, for any period of time and on any conditions.

[Sub-s. (2A) inserted by s. 18 (a) of Act 72 of 1997 and substituted by s. 10 (b) of Act 74 of 2008]

- (2B) The structure and functions of any *committee* contemplated in subsection (2A) must be provided for in the constitution contemplated in section 97 (3).

[Sub-s. (2B) inserted by s. 10 (c) of Act 74 of 2008]

- (3) The *Council* and its committees must govern themselves in accordance with the constitution contemplated in section 97 (3).

[Sub-s. (3) substituted by s. 18 (b) of Act 72 of 1997]

- (4) The *Council* may delegate any of its powers and assign any of its duties by or under *this Act* in accordance with the constitution contemplated in section 97 (3).

[Sub-s. (4) substituted by s. 18 (b) of Act 72 of 1997]

- (5) A delegation or an assignment under subsection (4)-
  - (a) must be in writing;
  - (b) may be subject to such conditions and restrictions as the *Council* may determine; and
  - (c) does not prevent the exercise of that power or the performance of that duty by the *Council*.

- (6) Members of the *Council*, or of a committee of the *Council*, are each entitled to have their views reflected in any report of the *Council* or committee, as the case may be.
- (7) Each year, the *Minister*, with the agreement of the Minister of Finance, must provide sufficient funds for the administration of the *Council*, and committees of the *Council*, from public funds.

### **43. Council's duties**

The *Council* must-

- (a) advise the *Minister* on *health and safety at mines* including, but not limited to, any legislation on *mine rehabilitation* in so far as it concerns *health and safety*;
- (b) co-ordinate the activities of its committees, receive reports from the committees and liaise with the Mining Qualifications Authority on matters relating to *health and safety*;
- (c) liaise with any other statutory bodies concerned with matters relating to *health and safety*;
- (d) promote a culture of *health and safety* in the mining industry;
- (e) at least once every two years arrange and co-ordinate a tripartite summit to review the state of *health and safety at mines*;

[Para. (e) substituted by s. 19 (b) of Act 72 of 1997]

- (eA) annually advise the *Minister* on relevant research relating to *health and safety at mines*; and

[Para. (eA) inserted by s. 19 (c) of Act 72 of 1997 and substituted by s. 11 of Act 74 of 2008]

- (f) perform every duty imposed upon the *Council* in terms of *this Act*.

### **44. ....**

[S. 44 amended by ss. 20 and 47 of Act 72 of 1997 and repealed by s. 12 of Act 74 of 2008]

#### **45. Mining Qualifications Authority**

- (1) The Mining Qualifications Authority consists of-
  - (a) five members representing *employers* in the mining industry;
  - (b) five members representing *employees* in the mining industry;
  - (c) four members representing departments of State; and
  - (d) the *Chief Inspector of Mines*, who must chair the Mining Qualifications Authority.

[Para. (d) substituted by s. 21 (a) of Act 72 of 1997]

- (2) The members of the Mining Qualifications Authority must be appointed in accordance with the constitution contemplated in section 97 (4).

[Sub-s. (2) substituted by s. 27 of Act 31 of 2003]

- (3) The Mining Qualifications Authority and its committees must govern themselves in accordance with the constitution contemplated in section 97 (4).

[Sub-s. (3) substituted by s. 21 (b) of Act 72 of 1997]

#### **46. Mining Qualifications Authority's functions**

- (1) The Mining Qualifications Authority must-
  - (a) seek registration in terms of the South African Qualifications Act, 1995 (Act 58 of 1995), as a body responsible for generating education and training standards and qualifications as contemplated in section 5 (1) (a) (ii) (aa) of that Act;

[Para. (a) substituted by s. 22 (a) of Act 72 of 1997]

- (b) seek accreditation in terms of the South African Qualifications Act, 1995 (Act 58 of 1995), as a body responsible for monitoring and auditing achievements as contemplated in section 5 (1) (a) (ii) (bb) of that Act;
  - (c) propose education and training standards and qualifications to bodies registered with that Authority and responsible for developing education and training standards;

[Para. (c) substituted by s. 22 (b) of Act 72 of 1997]

- (d) generate education and training standards and qualifications in the mining industry;

[Para. (d) substituted by s. 22 (b) of Act 72 of 1997]

- (e) monitor and audit achievement in terms of those standards and qualifications; and
- (f) perform the functions of a sector education and training authority in terms of the Skills Development Act, 1998 (Act 97 of 1998).

[Para. (f) added by s. 28 (a) of Act 31 of 2003]

- (2) The Mining Qualifications Authority-
  - (a) may appoint committees and *ad hoc committees*, and subcommittees, for any period and on any conditions;
  - (b) must administer and control its financial affairs in accordance with the Skills Development Act, 1998 (Act 97 of 1998); and
  - (c) may do anything necessary to achieve its objectives.

[Sub-s. (2) substituted by s. 28 (b) of Act 31 of 2003]

- (3) The Mining Qualifications Authority may delegate any of its powers or assign any of its duties by or under *this Act* in accordance with the constitution contemplated in section 97 (4).

[Sub-s. (3) substituted by s. 22 (c) of Act 72 of 1997]

- (4) A delegation or an assignment under subsection (3)-
  - (a) must be in writing;
  - (b) may be subject to such conditions and restrictions as the Authority may determine; and
  - (c) does not prevent the exercise of that power or the performance of that duty by the Authority.
- (5) In performing its functions, the Mining Qualifications Authority must comply with the policies and criteria formulated by the South African Qualifications Authority in terms of section 5 (1) (a) (ii) of the South African Qualifications Authority Act, 1995 (Act 58 of 1995).

## CHAPTER 5

### INSPECTORATE OF MINE HEALTH AND SAFETY

#### 47. Inspectorate established

(1)

- (a) A juristic person to be known as the Mine Health and Safety Inspectorate is hereby established.
- (b) The Public Finance Management Act, 1999 (Act 1 of 1999), applies to the Inspectorate.

[Sub-s. (1) substituted by s. 13 of Act 74 of 2008]

- (2) The *Minister*, by notice in the *Gazette*, may establish regions of the country for the purpose of administering *this Act* through regional offices of the Mine Health and Safety Inspectorate.

#### 48. Chief Inspector of Mines

- (1) The *Minister* must appoint an *officer*, with suitable mining qualifications and appropriate experience in *health and safety at mines*, to be *Chief Inspector of Mines*.
- (2) Subject to the control and direction of the *Minister*, the *Chief Inspector of Mines* must perform the functions entrusted to the *Chief Inspector of Mines* by *this Act*.
- (3) The *Chief Inspector of Mines* may perform any of the functions of an *inspector*.

#### 49. Chief Inspector of Mines' functions

- (1) Without limiting any statutory duty of any other person in terms of *this Act*, the *Chief Inspector of Mines* must
  - (a) ensure that the provisions of *this Act* are complied with and enforced and that every duty imposed upon the *Chief Inspector of Mines*, the *Medical Inspector* or *inspectors* in terms of any other law is performed;
  - (b) appoint an *officer* with the *prescribed* qualifications and experience as the *Medical Inspector*;
  - (c) appoint *officers* with the *prescribed* qualifications and experience as *inspectors*;
  - (d) administer the Mine Health and Safety Inspectorate;
  - (e) determine and implement policies to promote the *health and safety* of persons at *mines* and any person affected by mining activities;

- (f) consult with the *Council* before issuing guidelines on the form, content and distribution of codes of practice referred to in section 9;
- (g) collect, process and distribute information relating to *health* and *safety*;
- (h) advise the *Minister* on *health* or *safety* matters at *mines*;
- (i) each year, after consulting the *Council* and with the approval of the *Minister*, publish and distribute a plan of action for the activities of the Mine Health and Safety Inspectorate;
- (j) complete a report on *health* and *safety* at *mines* and the activities of the Mine Health and Safety Inspectorate for each year and submit the report to the *Minister* within three months of the end of the year concerned;

[Para. (j) substituted by s. 14 (a) of Act 74 of 2008]

- (k) perform any duties relating to *health* or *safety* at *mines* that the *Minister* directs or prescribes;

[Para. (k) substituted by s. 14 (b) of Act 74 of 2008]

- (l) develop and maintain an integrated *mine health* and *safety* database and reporting system;

[Para. (l) added by s. 14 (c) of Act 74 of 2008]

- (m) conduct or commission relevant research and evaluate and publish the results of the research; and

[Para. (m) added by s. 14 (c) of Act 74 of 2008]

- (n) provide logistical, administrative and technical support to the *Council*.

[Para. (n) added by s. 14 (c) of Act 74 of 2008]

- (2) The *Chief Inspector of Mines* must furnish a *prescribed* certificate to the *Medical Inspector* and to each *inspector*.
- (3) Despite the provisions of the *Minerals and Petroleum Resources Development Act* or any other law, the *Chief Inspector of Mines*—
  - (a) has the power to monitor and control those environmental aspects at *mines* that affect, or may affect, the *health* or *safety* of *employees* or other persons; and

- (b) must consult with the appropriate *officer* appointed in terms of the *Minerals and Petroleum Resources Development Act* concerning the exercise of those powers.

[Sub-s. (3) amended by s. 14 (d) of Act 74 of 2008 and Para. (b) substituted by s. 14 (e) of Act 74 of 2008]

- (4) To further the objectives of *this Act* the *Chief Inspector of Mines* may-
- (a) enter into agreements with other persons;
  - (b) authorise a competent independent person to perform any or all the functions of an *inspector*;
  - (c) perform any act, whether in the Republic or elsewhere, that is calculated, directly or indirectly, to enhance the value of the services which the Mine Health and Safety Inspectorate renders, or perform any *prescribed* act;
  - (d) require all *mines* or groups of *mines* to prepare and implement a *health* and *safety* management system for *mines*;
  - (e) require all *mines* or groups of *mines* to prepare and implement a *hazard* management system for significant *hazards* mentioned under section 11;
  - (f) in consultation with the *Minister* and the Minister of Finance acquire or dispose of immovable property;
  - (g) hire, purchase or otherwise acquire any movable property and proprietary right, and lease or dispose of property;
  - (h) collaborate with any other body or institution or establish and control facilities for the collection and dissemination of scientific and technical information relating to *health* and *safety* at *mines*;
  - (i) collaborate with any educational, governmental or scientific body or institution in connection with the provision of instruction for, or the training of, persons required by the Mine Health and Safety Inspectorate;
  - (j) provide financial or other assistance in connection with the training of persons in so far as is necessary to ensure that a sufficient number of trained persons are available to enable the Mine Health and Safety Inspectorate to perform its functions efficiently;
  - (k) insure the Mine Health and Safety Inspectorate against any loss, damage, risk or liability;
  - (l) invest any of the money of the Mine Health and Safety Inspectorate; and
  - (m) institute or defend any legal action.
- (5) The *Chief Inspector of Mines* must furnish a *prescribed* certificate to each person authorised under subsection (4) (b).
- (6) The *Chief Inspector of Mines* must issue guidelines by notice in the *Gazette*.

[Sub-s. (4) substituted by s. 14 (f) of Act 74 of 2008 and Sub-s. (6) added by s. 14 (g) of Act 74 of 2008]

#### **49A. Financial and judicial management of Mine Health and Safety Inspectorate**

- (1) The funds of the Mine Health and Safety Inspectorate consist of-
  - (a) money appropriated by Parliament;
  - (b) any donations made to the Mine Health and Safety Inspectorate;
  - (c) revenue made on investments; and
  - (d) money raised and received in terms of *this Act*.
- (2) The Mine Health and Safety Inspectorate must utilise its funds to defray expenses incurred by it in the performance of its functions.
- (3) The *Chief Inspector of Mines* must, after consultation with the Council, use the monies collected in terms of section 55B for the promotion of *health and safety* in the mining industry.
- (4) The *Chief Inspector of Mines* as the accounting authority of the Inspectorate must-
  - (a) open a bank account in the name of the Mine Health and Safety Inspectorate with an institution registered as a bank in terms of the Banks Act, 1990 (Act 94 of 1990); and
  - (b) deposit therein all money received in terms of subsection (1).
- (5) The Mine Health and Safety Inspectorate may invest any of its funds not immediately required-
  - (a) subject to any investment policy that may be prescribed; and
  - (b) in such a manner as may be approved by the *Minister*.
- (6) The Mine Health and Safety Inspectorate's financial year is from 1 April in any year to 31 March in the following year.
- (7) The report of the *Chief Inspector of Mines* referred to in section 49 (1) (j) must reflect the financial affairs of the Mine Health and Safety Inspectorate.
- (8) Despite any other law, the Mine Health and Safety Inspectorate may not be placed under judicial management or in liquidation except if authorised by an Act of Parliament adopted especially for that purpose.

[S. 49A inserted by s. 15 of Act 74 of 2008]

#### **49B. Co-operative governance**

- (1) The *Chief Inspector of Mines* must co-ordinate the exercise of the functions of the Mine Health and Safety Inspectorate with other organs of state in respect of regulating and promoting *occupational health and safety*, in accordance with the principles of co-operative governance contemplated in Chapter 3 of the Constitution.
- (2) The *Chief Inspector of Mines* may conclude co-operative agreements with relevant organs of state to give effect to the co-operation contemplated in subsection (1).

[S. 49B inserted by s. 15 of Act 74 of 2008]

#### **50. Inspectors' powers**

- (1) An *inspector* may for the purposes of monitoring or enforcing compliance with *this Act*-
  - (a) enter any *mine* at any time without warrant or notice;
  - (b) enter any other place after obtaining the necessary warrant in terms of subsection (7); and
  - (c) bring into and use at any *mine*, or at any place referred to in paragraph (b), vehicles, equipment and material as necessary to perform any function in terms of *this Act*.
- (2) While the *inspector* is at any *mine* or place referred to in subsection (1), the *inspector* may, for the purposes of monitoring or enforcing compliance with *this Act*-
  - (a) question any person on any matter to which *this Act* relates;
  - (b) require any person who has control over, or custody of, any document, including but not limited to, a plan, book or record to produce that document to the *inspector* immediately or at any other time and place that the *inspector* requires;
  - (c) require from any person referred to in paragraph (b) an explanation of any entry or non-entry in any document over which that person has custody or control;
  - (d) examine any document produced in terms of paragraph (b), and make a copy of it or take an extract from it;
  - (e) inspect-
    - (i). any article, *substance* or *machinery*;
    - (ii). any work performed; or
    - (iii). any condition;
  - (f) inspect arrangements made by the *employer* for *medical surveillance* of *employees*;

- (g) seize any document, article, *substance* or *machinery* or any part or sample of it; and
  - (h) perform any other *prescribed* function.
- (3) An *inspector* may instruct any *employer*, *employee* or any other person who performs an activity regulated by *this Act* or any former *employer* or *employee* or person who formerly performed an activity regulated by *this Act*, to appear before the *inspector* to be questioned on any matter to which *this Act* relates.
- (4) Before an *inspector* may seize any document under subsection (2) (g), the *employer* of the *mine* may copy it.
- (5) An *inspector* may remove any article, *substance* or *machinery* or any part or sample of it from any *mine* or place referred to in subsection (1) for examination or analysis.
- (6) When an *inspector* seizes or removes any item under this section, the *inspector* must issue a receipt for that item to the *employer* of the *mine* or place involved.
- (7) A magistrate may issue a warrant contemplated in subsection (1) (b) only on written application by an *inspector* setting out under oath or affirmation the need to enter a place other than a mine to monitor or enforce compliance with *this Act*.
- (7A) The *Inspector* may impose a prohibition on the further functioning of the site where-
- (a) a person's death;
  - (b) serious injury or illness to a person; or
  - (c) a health threatening occurrence, has occurred by blocking, barring or barricading the site in such a manner as the Inspector may deem necessary.

[NB: A sub-s. (7A) has been inserted by s. 16 of the Mine Health and Safety Amendment Act 74 of 2008, a provision which will be put into operation by proclamation.]

- (8) For the purpose of this section, '*mine*' does not include any home, or residential quarters, situated at the *mine*.

## **51. Inspector may be accompanied**

When performing any function under *this Act*, an *inspector* may be accompanied by an interpreter or any other person reasonably required to assist the *inspector*.

## **52. Duty to assist inspector and answer questions**

- (1) When an *inspector* enters any *mine* or place referred to in section 50 (1), the *employer* and each *employee* performing any work there must provide any facility that the *inspector* reasonably requires.
- (2) Persons questioned by an *inspector* under section 50 (2) (a) or (c) or (3) must answer each question to the best of their ability, but no person is required to answer any question if the answer may be self-incriminating.

## **53. Duty to produce documents required by inspector**

Any person who holds or should hold a permit, licence, permission, certificate, authorisation or any other document issued in accordance with *this Act* or the *Mineral and Petroleum Resources Development Act*, must produce it at the request of the *Chief Inspector of Mines* or any *inspector*.

## **54. Inspector's power to deal with dangerous conditions**

- (1) If an *inspector* has reason to believe that any occurrence, practice or condition at a *mine* endangers or may endanger the *health* or *safety* of any person at the *mine*, the *inspector* may give any instruction necessary to protect the *health* or *safety* of persons at the *mine*, including but not limited to an instruction that:
  - (a) operations at the *mine* or a part of the *mine* be halted;
  - (b) the performance of any act or practice at the *mine* or a part of the *mine* be suspended or halted, and may place conditions on the performance of that act or practice;
  - (c) the *employer* must take the steps set out in the instruction, within the specified period, to rectify the occurrence, practice or condition; or
  - (d) all affected persons, other than those who are required to assist in taking steps referred to in paragraph (c), be moved to *safety*.

[Sub-s. (1) amended by s. 23 of Act 72 of 1997.]

- (2) An instruction under subsection (1) must be given to the *employer* or a person designated by the *employer* or, in their absence, the most senior *employee* available at the *mine* to whom the instruction can be issued.

- (3) An *inspector* may issue an instruction under subsection (1) either orally or in writing. If it is issued orally, the *inspector* must confirm it in writing and give it to the person concerned at the earliest opportunity.
- (4) If an instruction issued under subsection (1) is not issued to the *employer*, the *inspector* must give a copy of the instruction to the *employer* at the earliest opportunity.
- (5) Any instruction issued under subsection (1) (a) must either be confirmed, varied or set aside by the *Chief Inspector of Mines* as soon as practicable.
- (6) Any instruction issued under subsection (1) (a) is effective from the time fixed by the *inspector* and remains in force until set aside by the *Chief Inspector of Mines* or until the *inspector*'s instructions have been complied with.

(7) .....

[Sub-s. (7) deleted by s.17 of Act, No. 74 of 2008.]

(8) .....

[Sub-s. (8) deleted by s.17 of Act, No. 74 of 2008.]

(9) .....

[Sub-s. (9) deleted by s.17 of Act, No. 74 of 2008.]

(10) .....

[Sub-s. (10) deleted by s.17 of Act, No. 74 of 2008.]

## **55. Inspectors' power to order compliance**

- (1) If an *inspector* has reason to believe that an *employer* has failed to comply with any provision of *this Act*, the *inspector* may instruct that *employer* in writing to take any steps that the *inspector*—
  - (a) considers necessary to comply with the provision; and
  - (b) specifies in the instruction.

[Sub-s. (1) amended by s. 24 of Act 72 of 1997.]

- (2) When issuing an instruction under subsection (1), an *inspector* must specify the period within which the specified steps must be taken. A period specified in an instruction may be extended by an *inspector* at any time by giving notice in writing to the person concerned.

#### **55A. Inspector's powers to recommend fine**

- (1) An *inspector* may make a recommendation in writing to the *Principal Inspector of Mines* that a fine be imposed on an *employer* who has failed to comply with any provision contemplated in section 91 (1B).

[Sub-s. (1) substituted by s. 18 (a) of Act 74 of 2008.]

- (2) .....

[Sub-s. (2) deleted by s. 18 (b) of Act 74 of 2008.]

- (3) The *inspector* concerned must serve a copy of the recommendation on-
- (a) the *employer*;
  - (b) the *health and safety committee*, or if there is no *health and safety committee*, to any *health and safety representative* responsible for the *working place* in question; and
  - (c) the *representative trade union*, or if there is no *representative trade union*, to every *registered trade union* with members at the *mine*.

[Sub-s. (3) amended by s. 18 (c) of Act 74 of 2008.]

- (4) The *employer* may make written representations to the *Principal Inspector of Mines* within 30 days of the recommendation.

[Sub-s. (4) added by s. 18 (d) of Act 74 of 2008.]

- (5) A representation made in terms of this section may not be used against the *employer* in any criminal or civil proceedings in respect of the same set of facts.

[S. 55A inserted by s. 25 of Act 72 of 1997 and Sub-s. (5) added by s. 18 (d) of Act 74 of 2008.]

#### **55B. Principal Inspector of Mines may impose fines**

- (1) The *Principal Inspector of Mines*, after considering the recommendation and any representations made in accordance with section 55A, may-
- (a) disregard the recommendation;

- (b) impose a fine not exceeding the maximum amount mentioned in Table 2 of Schedule 8; or
  - (c) refer the matter to the prosecuting authority for a decision as to whether the *employer* should be charged with an offence.
- (2) The *Principal Inspector of Mines* must notify the *employer*, committee, representative and trade union contemplated in section 55A (3), as the case may be, of any decision made in terms of subsection (1).
- (3) An *employer* must pay any fine imposed in terms of this section within 30 days of the imposition of the fine.
- (4) If the *employer* fails to pay the fine within the specified period, the *Chief Inspector of Mines* may apply to the Labour Court for the fine to be made an order of that court.

[S. 55B inserted by s. 25 of Act 72 of 1997 and substituted by s. 19 of Act 74 of 2008.]

**55C .....**

[S. 55C inserted by s. 25 of Act 72 of 1997 and repealed by s. 20 of Act, No. 74 of 2008.]

**55D. .....**

[S. 55D inserted by s. 25 of Act 72 of 1997 and repealed by s. 20 of Act, No. 74 of 2008.]

**55E. .....**

[Section 55E inserted by s. 25 of Act 72 of 1997 and repealed by s. 20 of Act, No.74 of 2008.]

**55F. .....**

[Section 55F inserted by s. 25 of Act 72 of 1997 and repealed by s. 20 of Act, No. 74 of 2008.]

**55G. .....**

[Section 55G inserted by s. 25 of Act 72 of 1997 and repealed by s. 20 of Act, No. 74 of 2008.]

**55H. .....**

[Section 55H inserted by s. 25 of Act 72 of 1997 and repealed by s. 20 of Act, No. 74 of 2008.]

## **56. Instructions to be posted at mine**

The employer of a *mine* must-

- (a) promptly supply a copy of any instruction of an *inspector* to-
  - (i). the *health and safety representative* representing the *employees* affected by the instruction; and
  - (ii). the *health and safety committee* responsible for those *employees*; and
- (b) promptly publicise the instruction by-
  - (i). prominently and conspicuously displaying copies of the instruction to the *employees* whose interests may be affected; and
  - (ii). causing its contents to be communicated orally to those *employees*.

## **57. Right to appeal inspectors' decisions**

- (1) Any person adversely affected by a decision of an *inspector*, except a decision contemplated in section 55B, may appeal against that decision to the *Chief Inspector of Mines*.

[Sub-s. (1) substituted by s. 27 (a) of Act 72 of 1997 and by s. 21 of Act 74 of 2008.]

- (2) An appeal under subsection (1) must-
  - (a) be lodged with the *Chief Inspector of Mines* within 30 days of the decision, or such further period as may be *prescribed*; and

[Para. (a) substituted by s. 27 (b) of Act 72 of 1997.]

- (b) set out the grounds of appeal.

- (3) After considering the grounds of the appeal and the inspector's reasons for the decision, the *Chief Inspector of Mines* must as soon as practicable-
  - (a) confirm, set aside or vary the decision; or
  - (b) substitute any other decision for the decision of the *inspector*.

## **57A .....**

[S. 57A inserted by s. 28 of Act 72 of 1997 and repealed by s. 22 of Act 74 of 2008.]

## **58. Right to appeal Chief Inspector of Mines' decision**

- (1) Any person adversely affected by a decision of the *Chief Inspector of Mines*, either in terms of section 57 (3) or in the exercise of any power under *this Act*, may appeal against the decision to the *Labour Court*.
- (2) An appeal under subsection (1), must be lodged with the registrar of the *Labour Court* in accordance with the rules of the *Labour Court*, within 60 days of the date that the *Chief Inspector of Mines*' decision was given.

- (3) The *Labour Court* must consider the appeal and confirm, set aside or vary the decision.

## **59. Appeal does not suspend decision**

- (1) An appeal against a decision under either section 57, 57A or 58 does not suspend the decision.
- (2) Despite subsection (1)-
  - (a) an appeal in terms of section 57A or 58 against a decision to impose a fine suspends the obligation to pay the fine, pending the outcome of the appeal; and
  - (b) the *Labour Court* may suspend the operation of the decision, pending the determination of the matter, if there are reasonable grounds for doing so.

[S. 59 substituted by s. 29 of Act 72 of 1997.]

## **60. Initiating investigations**

- (1) The *Chief Inspector of Mines* must instruct an *inspector* to investigate any accident or occurrence at a *mine* that results in the death of any person.

[Sub-s. (1) substituted by s. 30 of Act 72 of 1997.]

- (2) At any time an *inspector* may investigate-
  - (a) any accident or occurrence at a *mine* that results in the *serious injury* or *serious illness* of any person;
  - (b) any occurrence, practice or condition concerning *health* or *safety* of persons at one or more *mines*; or
  - (c) any actual or suspected contravention of, or failure to comply with, any provision of *this Act*.

[Sub-s. (2) substituted by s. 30 of Act 72 of 1997.]

- (3) If there is cause for concern on *health* or *safety* grounds, an *inspector* must investigate any matter referred to in subsection (2), if-
  - (a) instructed to do so by the *Chief Inspector of Mines*; or
  - (b) requested to do so by-
    - (i). a *registered trade union* with members at the *mine* or *mines*;
    - (ii). a *health and safety representative* or *health and safety committee* at the *mine*; or
    - (iii). if there is no *health and safety representative*, an *employee* at the *mine*.

## **61. Chief Inspector of Mines may designate assistant in investigation**

At any time before or during an investigation, the *Chief Inspector of Mines* may designate one or more persons to assist the *inspector* holding the investigation.

## **62. Duty to answer questions during investigation**

Persons questioned during an investigation must answer every question to the best of their ability, but no person is required to answer any question if the answer may be self-incriminating.

## **63. Enhancing effectiveness of investigation**

(1)

- (a) For the purpose of enhancing the effectiveness of an investigation in terms of section 60 the National Prosecuting Authority, after receiving representations from the *Chief Inspector of Mines*, may issue a certificate that no prosecution may be instituted in respect of any contravention of, or failure to comply with, a provision of *this Act* related to the event being investigated.
- (b) If a certificate is issued, no fine in terms of section 55B or disciplinary action related to the event investigated may thereafter be imposed on or taken against any person.

[Sub-s. (1) substituted by s. 31 of Act 72 of 1997 and by s. 23 of Act 74 of 2008.]

- (2) The *Chief Inspector of Mines* must communicate in writing the protection afforded under subsection (1) to all persons questioned during the investigation.
- (3) Persons questioned during the investigation who are afforded protection under this section must answer every question to the best of their ability and may not refuse to answer any question on the grounds that the answer may be self-incriminating.

## **64. Reports on investigations**

- (1) After completing an investigation, an *inspector* must prepare a written report of the findings, recommendations and any remedial steps.
- (2) The *inspector*—
  - (a) must submit a copy of the report referred to in subsection (1) to the *Chief Inspector of Mines*;

- (b) must supply a copy of the report to the *employer* and to the *health and safety representative, health and safety committee, registered trade union or employee* that requested the investigation; and
- (c) may instruct the *employer* of the *mine* concerned to prominently and conspicuously display a copy of the report or portion of it for *employees* to read.

## **65. Initiating inquiries**

- (1) Unless the provisions of section 63 have been invoked, the *Chief Inspector of Mines* must direct an *inspector* to conduct an inquiry into any accident or occurrence at a *mine* that results in the death of any person.
- (2) Unless the provisions of section 63 have been invoked, the *Chief Inspector of Mines* may direct an *inspector* to conduct an inquiry into-
  - (a) any accident or occurrence at a *mine* that results in the *serious injury or serious illness* of any person;
  - (b) any occurrence, practice or condition concerning *health or safety* of persons at one or more *mines*; or
  - (c) any actual or suspected contravention of, or failure to comply with, any provision of *this Act*.
- (3) If there is cause for concern on *health or safety* grounds and if the provisions of section 63 have not been invoked, the *Chief Inspector of Mines* may direct an *inspector* to conduct an inquiry into any matter referred to in subsection (2) if requested in writing to do so by-
  - (a) a *registered trade union* with members at the *mine* or *mines*;
  - (b) a *health and safety representative* or *health and safety committee* at the *mine*; or
  - (c) if there is no *health and safety representative* at the *mine*, an *employee*.
- (4) This section does not limit any other law regulating the holding of an inquest or other inquiry into the death of a person.

## **66. Investigation may be converted into inquiry**

- (1) At any time during an investigation, the *Chief Inspector of Mines* may convert it into an inquiry.
- (2) The provisions of sections 68 to 71 relating to attendance and examination of witnesses at inquiries apply equally to a converted investigation.

- (3) Any person instructed or summoned to give evidence at an inquiry that was converted from an investigation is not entitled to refuse to give evidence only on the grounds that a statement had previously been given, or documents previously been adduced, during the investigation.
- (4) This section does not preclude or limit holding an inquiry after an investigation has been completed.

## **67. Chief Inspector of Mines may designate assistant in inquiry**

At any time before or during an inquiry the *Chief Inspector of Mines* may designate one or more persons to assist in the inquiry or to preside at the inquiry.

## **68. Inquiry to be public**

- (1) An inquiry must be held in public.
- (2) Despite subsection (1) the person presiding at an inquiry may of that person's own accord or at the request of a witness exclude members of the public or specific persons or categories of persons from attending the proceedings or part of the proceedings when the proper conduct of the inquiry requires.
- (3) The person presiding at an inquiry may make any order necessary to ensure that *employees* at the *mine* and members of the public have access to the premises in which the inquiry is held.

## **69. Right to participate in inquiry**

The persons listed in this section may participate in an inquiry and, either personally or through a representative, may put questions to witnesses and inspect any book, plan, *record* or other document or item presented at the inquiry. The persons entitled to participate are-

- (a) any person who has a material interest in the inquiry;
- (b) a representative of any *registered trade union* with members at the *mine* in respect of which the inquiry is being held; and
- (c) any *health and safety representative* responsible for the *working place* in respect of which the inquiry is being held.

[Para. (c) substituted by s. 32 of Act 72 of 1997.]

## **70. Powers of person presiding at inquiry**

The person presiding at an inquiry may-

- (a) instruct or summon any person to appear at any specified time and place;
- (b) question any person under oath or affirmation;

- (c) instruct any person-
  - (i). to produce any book, plan, *record* or other document or item necessary for the purposes of the inquiry; or
  - (ii). to perform any other act in relation to *this Act* necessary for the purpose of the inquiry.

## **71. Duty of persons summoned or instructed**

- (1) Subject to subsection (2), every person giving evidence at an inquiry must answer any relevant question.
- (2) The law regarding a witness's privilege in a court of law applies equally to any person being questioned at an inquiry.
- (3) The person presiding at an inquiry may direct that any evidence given by a person during an inquiry may not be used in any criminal or disciplinary proceedings against that person except in criminal proceedings on a charge of perjury against that person.

[Sub-s. (3) substituted by s. 33 of Act 72 of 1997 and by s. 24 of Act 74 of 2008.]

- (4) When a directive has been issued under subsection (3), the person involved is not entitled to refuse to answer any relevant question only on the grounds that the answer could expose that person to a criminal charge, disciplinary proceedings or a recommendation under section 55A.

[Sub-s. (4) substituted by s. 33 of Act 72 of 1997.]

- (5) A person instructed in terms of section 70 (c) must comply with that instruction unless the person has sufficient cause for not doing so.

## **72. Inquiry records and reports**

- (1) A person presiding at an inquiry must-
  - (a) record the evidence given at the inquiry, including any evidence given with the assistance of an interpreter;
  - (b) at the conclusion of the inquiry, prepare a written report of the findings, recommendations and any remedial steps;
  - (c) submit a copy of the report and the record of the inquiry to the *Chief Inspector of Mines*;
  - (d) supply a copy of the report and the record of the inquiry to the *employer* and to any *health and safety representative*, *health and safety committee* or *registered trade union* that requested the inquiry; and
  - (e) on request, supply a copy of the report and the *record* of the inquiry to any person who has a material interest in the inquiry.

- (2) An *inspector* may instruct the *employer* of the *mine* concerned to prominently and conspicuously display a copy of the report or any portion of it for *employees* to read.
- (3) The *Chief Inspector of Mines* may submit a copy of the report to the appropriate Attorney-General.

### **73. Chief Inspector of Mines may order further inquiry**

Upon considering the evidence and the report referred to in section 72, the *Chief Inspector of Mines* may require that the matter be inquired into further.

### **74. Inquiry and inquest may be conducted jointly**

- (1) An inquiry in terms of *this Act* into the death of a person may be held jointly with an inquest in terms of the Inquests Act, 1959 (Act 58 of 1959).
- (2) The judicial officer contemplated in the Inquests Act, 1959 (Act 58 of 1959), must preside at a joint inquiry referred to in subsection (1) and the person instructed to hold the inquiry in terms of *this Act* must be deemed to be an assessor appointed in terms of the Inquests Act, 1959.
- (3) The provisions of the Inquests Act, 1959 (Act 58 of 1959), apply to a joint inquiry.
- (4) The assessor referred to in subsection (2) must-
  - (a) prepare a report contemplated in section 72 (1) (b); and
  - (b) submit the report and the record of the joint inquiry to the *Chief Inspector of Mines*.

## **CHAPTER 6**

### **MINISTER'S POWERS**

### **75. Minister may prohibit or restrict work**

- (1) For any reason relating to *health* or *safety*, the *Minister*, by notice in the *Gazette*, may prohibit or restrict any work or any exposure of a person to a *substance* or an environmental condition, if-
  - (a) the *Minister* has consulted the *Council* on the prohibition or restriction; and
  - (b) unless the *Minister* believes that the public interest requires the notice to be published immediately, the *Minister* has-

- (i). published a draft of the proposed notice at least three months previously; and
  - (ii). at that time invited interested persons to submit comments and representations concerning the proposed notice within a specified period.
- (2) The *Minister* may attach any conditions to a prohibition or restriction by specifying them in the published notice.
- (3) The *Minister*, after consulting the *Council*, may amend or withdraw a notice under subsection (1) at any time.

## **76. Minister may declare health hazards**

- (1) The *Minister*, by notice in the *Gazette*, may declare that an environmental condition or a substance present at a mine is a *health hazard* to *employees* who are or may be exposed to that condition or *substance*, if-
  - (a) the *Minister* has consulted the *Council* on the issuing of the declaration; and
  - (b) unless the *Minister* believes that the public interest requires the notice to be published immediately, the *Minister* has-
    - (i). published a draft of the proposed notice at least three months previously; and
    - (ii). at that time invited interested persons to submit comments and representations concerning the proposed notice within a specified period.
- (2) In connection with any *health hazard*, the *Minister*, after consulting the *Council*, by notice in the *Gazette*, may-
  - (a) impose conditions on the performance of work by *employees* exposed to the *health hazard*;
  - (b) stipulate the standards of fitness for an *employee* to perform work involving exposure to the *health hazard*;
  - (c) require *employers* to take measures to eliminate, control and minimise *health risks* associated with the *health hazard*;
  - (d) require *employers* to conduct specified *occupational hygiene* measurements;
  - (e) require *employers* to conduct specified *medical surveillance* in respect of *employees* exposed to the *health hazard*; and
  - (f) provide for any other matter that the *Minister* considers necessary to protect *employees* exposed to the *health hazard*.

- (3) The *Minister* may enter any *mine* at any time only for the purposes of *health hazards*.

[Sub-s. (3) substituted by s. 25 of Act 74 of 2008.]

## **77. Application of Minister's notice**

A notice under either section 75 or 76 may differentiate between *mines*, types of *mines*, parts of a *mine*, occupations and types of work.

## **78. Exemption from Minister's notice**

- (1) A notice under either section 75 or 76 may exempt a particular person or group of persons from compliance with that notice if the *Minister* is satisfied that any of the following conditions exists-
- (a) in the circumstances the exemption is desirable;
  - (b) the performance of the work by that person or group of persons is temporary; or
  - (c) the *risk* to which that person or group of persons is exposed is negligible.
- (2) The *Minister*, after consulting the *Council*, may cancel an exemption granted under subsection (1) at any time.

## **79. Exemption from all or part of this Act**

- (1) The *employer* of a *mine* may request an exemption from the *Minister*, and if satisfied that the *employer* has consulted appropriately with the affected *employees* or their representatives, the *Minister* may exempt the *employer* from any or all the provisions of *this Act* or from a notice or instruction issued under this Act. An exemption may be-
- (a) general or particular;
  - (b) for any period; and
  - (c) on any conditions that provide the same overall protection which would result from the full application of *this Act*.
- (2) When an exemption is granted under subsection (1), the *Minister* must issue a certificate of exemption to the *employer*, specifying the scope, period and conditions of the exemption.
- (3) The *Minister* may amend or withdraw a certificate of exemption at any time.
- (4) The *employer* must prominently and conspicuously display any exemption granted, or deemed to have been granted, under this section to the *employees* to read.

## **80. Minister may apply other laws to mine**

- (1) After consulting the *Council*, the *Minister*, by notice in the *Gazette*, may declare that any provision of the Occupational Health and Safety Act, 1993 (Act 181 of 1993), or any regulation made under that Act, or the provisions of any other Act or regulations, must apply to a *mine*.
- (2) A declaration in terms of subsection (1) may differentiate between *mines*, types of *mines*, parts of a *mine*, occupations and types of work.

## **81. Minister to table annual report**

- (1) Within 30 days of receiving the annual report of the *Chief Inspector of Mines*, the *Minister* must table it in Parliament.
- (2) If Parliament is not in session at the end of the period referred to in subsection (1), the *Minister* must table the report within 14 days of the beginning of the next session of Parliament.

# **CHAPTER 7**

## **LEGAL PROCEEDINGS AND OFFENCES**

### **82. Jurisdiction of Labour Court**

- (1) The *Labour Court* has exclusive jurisdiction to determine any dispute about the interpretation or application of any provision of *this Act* except where *this Act* provides otherwise.
- (2) The *Labour Court* has no jurisdiction in respect of offences in terms of *this Act*.

### **83. No discrimination against employees who exercise rights**

- (1) No person may discriminate against any *employee* for-
  - (a) exercising a right in terms of *this Act* or in terms of a collective agreement contemplated in *this Act*;
  - (b) doing anything that the *employee* is entitled to do in terms of *this Act* or in terms of a collective agreement contemplated in *this Act*;
  - (c) refusing to do anything that the *employee* is entitled to refuse to do in terms of *this Act* or in terms of a collective agreement contemplated in *this Act*;
  - (d) refusing to do anything that the *employee* is prohibited from doing in terms of *this Act* or in terms of a collective agreement contemplated in *this Act*; and

- (e) standing for election, or performing any function, as a *health and safety representative* or a member of a *health and safety committee*.
- (2) For the purposes of this section-
  - (a) 'discriminate' means to dismiss an *employee* or to engage in any other conduct which has the effect of prejudicing or disadvantaging the *employee*, or which prejudices or disadvantages the *employee* relative to other *employees*; and
  - (b) '*employee*' includes any applicant for employment who has previously been employed at a *mine*.

#### **84. Safety equipment not to be interfered with**

Unless specifically authorised by the *employer*, no person-

- (a) other than an *inspector* acting in terms of section 50, may remove personal protective equipment from a *mine*, or cause that equipment to be removed;
- (b) other than an *inspector* acting in terms of section 50, may remove anything that is provided in the interest of *health or safety*, or cause that equipment to be removed; or
- (c) may alter, damage, misuse, render ineffective or interfere with anything that is provided in the interest of *health or safety*, or cause that equipment to be altered, damaged, misused, rendered ineffective or interfered with.

#### **85. Juvenile employment underground prohibited**

- (1) No person may cause or permit an *employee* under the age of 18 years to work underground at a *mine*.
- (2) No *employee* under the age of 18 years may work underground at a mine.
- (3) Despite subsections (1) and (2), an *employee* under the age of 18 years but over the age of 16 years may work underground as part of vocational education or training.

#### **86. Negligent act or omission**

- (1) Any person who, by a negligent act or by a negligent omission, causes *serious injury* or *serious illness* to a person at a *mine*, commits an offence.

[Sub-s. (1) substituted by s. 35 (a) of Act 72 of 1997.]

- (2) Any person, other than an *employer* or *employee*, who, by a negligent act or by a negligent omission, endangers the *health* or *safety* of a person at a *mine*, commits an offence.

[Sub-s. (2) substituted by s. 35 (b) of Act 72 of 1997.]

- (3) .....

[Sub-s. (3) deleted by s. 35 (c) of Act 72 of 1997.]

## **86A. Criminal liability**

- (1) An *employer*, chief executive officer, manager, agent or employee commits an offence if he or she contravenes or fails to comply with the provisions of this Act thereby causing-
- (a) a person's death; or
  - (b) serious injury or illness to a person.
- (2) If a chief executive officer, manager, agent or *employee* of the *employer* commits an offence by performing or omitting to perform an act and such performance or omission would have constituted an offence had it been done by the *employer*, that *employer* is equally committing an offence if the act or omission fell within the scope of the authority or employment of the chief executive officer, manager, agent or *employee* concerned and the *employer*-
- (a) connived at or permitted the performance or an omission by the chief executive officer, manager, agent, or employee concerned; or
  - (b) did not take all reasonable steps to prevent the performance or an omission.
- (3) For the purposes of subsection (1) the-
- (a) fact that the person issued instructions prohibiting the performance or an omission is not in itself sufficient proof that all reasonable steps were taken to prevent the performance or an omission;
  - (b) defence of ignorance or mistake by any person accused cannot be admitted; or
  - (c) defence that the death of a person, injury, illness or endangerment was caused by the performance or an omission of an act falling within the scope of the authority or employment of any individual within the employ of the *employer* may not be admitted.

[NB: s. 86A has been inserted by s. 26 of the Mine Health and Safety Amendment Act 74 of 2008, a provision which will be put into operation by proclamation.]

## **87. Breach of confidence**

- (1) Any person who discloses any information that they acquired in the performance of a function in terms of *this Act* and that relates to the financial and business affairs of an *employer* or any other person who employs *employees*, commits an offence.

[Sub-s. (1) substituted by s. 36 of Act 72 of 1997.]

- (2) Subsection (1) does not apply if the information-
- (a) was disclosed to enable a person to perform a function in terms of *this Act*;
  - (b) must be disclosed in terms of *this Act*, any other law or an order of court; or
  - (c) was disclosed to a *health and safety representative* or *health and safety committee* in terms of Chapter 3.

## **88. Hindering administration of this Act**

Any person who hinders, opposes, obstructs or unduly influences any person who is performing a function in terms of *this Act* commits an offence.

## **89. Falsifying documents**

Any person who obtains or attempts to obtain a *prescribed* certificate of competency by means of fraud, dishonesty, false pretences or the presentation or submission of a false or forged document commits an offence.

## **90. Failure to attend when summoned**

A person commits an offence who, having been instructed or summoned to attend an inquiry-

- (a) without sufficient cause fails-
  - (i). to appear at the time and place specified; or
  - (ii). to remain in attendance until excused by the person presiding at the inquiry;
- (b) attends as required, but without sufficient cause-
  - (i). fails to comply with an instruction in terms of section 70 (c) (i); or
  - (ii). refuses to be sworn or to make an affirmation; or
- (c) attends as required and having been sworn or having made an affirmation-
  - (i). without sufficient cause fails to answer any question fully and to the best of that person's ability; or
  - (ii). gives evidence, knowing or believing it to be false.

## 91. Failure to comply with this Act

- (1) Any person, including an *employer*, who contravenes, or fails to comply with, any-
- (a) provision of *this Act*;
  - (b) *regulation*; or
  - (c) condition, suspension, notice, order, instruction, prohibition, authorisation, permission, consent, exemption, certificate or document determined, given, issued, prescribed or granted by or under this Act by the *Minister*, *Chief Inspector of Mines*, *inspector*, any person authorised under section 49 (4) or any person to whom any power has been delegated or the performance of any duty has been assigned under section 96, commits an offence and is liable to a fine or imprisonment as may be prescribed.

[Sub-s. (1) substituted by s. 37 (a) of Act 72 of 1997 and by s. 27 (a) of Act 74 of 2008.]

(1A) .....

[Sub-s. (1A) inserted by s. 37 (b) of Act 72 of 1997 and deleted by s. 27 (b) of Act 74 of 2008.]

(1B) Any *employer* is liable to a fine in terms of section 55B if the *employer* contravenes, or fails to comply with, any-

- (a) provision of *this Act*, other than a provision referred to in subsection (1A), or any provision of Chapter 3 or section 83;

[Para. (a) substituted by s. 27 (d) of Act 74 of 2008.]

- (b) *regulation*; or
- (c) condition, suspension, notice, order, instruction, prohibition, authorisation, permission, consent, exemption, certificate or document determined, given, issued, promulgated or granted by or under *this Act* by the *Minister*, *Chief Inspector of Mines*, *inspector*, any person authorised under section 49 (4) or any person to whom any power has been delegated or the performance of any duty has been assigned under section 96.

[Sub-s. (1B) inserted by s. 37 (b) of Act 72 of 1997 and amended by s. 27 (c) of Act 74 of 2008.]

(1C) Despite subsection (1B), any *employer* who, contravenes or fails to comply with any *standard* in a code of practice prepared in terms of section 9 (2) is not liable to a fine in terms of section 55B if-

- (a) the standard exceeds any compulsory standard in any relevant guideline issued by the *Chief Inspector of Mines*; and

- (b) the conduct constituting the contravention or failure complies with the compulsory *standard* in any relevant guideline issued by the *Chief Inspector of Mines*.

[Sub-s. (1C) inserted by s. 37 (b) of Act 72 of 1997 and amended by s. 27 (e) of Act 74 of 2008.]

(2) .....

[Sub-s. (2) deleted by s. 27 (f) of Act 74 of 2008.]

- (3) A person appointed under section 4 (1) to perform any function entrusted to an *employer* by *this Act* commits an offence if that person fails to exercise reasonable care in performing that function.
- (4) Any *chief executive officer* or member of the board contemplated in section 2A who performs a function in terms of section 2A (1) or (3) commits an offence if that person fails to take reasonable steps in performing that function.

[Sub-s. (4) added by s. 37 (c) of Act 72 of 1997.]

## 92. Penalties

- (1) Any person convicted of an offence in terms of section 87, may be sentenced to a fine or to imprisonment to be determined by the court.
- (2) Any person convicted of an offence in terms of section 90 (a) or (b) (i), may be sentenced to the penalty applicable to a similar offence in a magistrate's court.
- (3) Any person convicted of an offence in terms of section 90 (c) (ii), may be sentenced to any penalty that may be imposed in law for perjury.
- (4) Any person convicted of an offence in terms of *this Act* for which no penalty is otherwise expressly determined, may be sentenced to a fine or to imprisonment for a period not exceeding six months.
- (5) Any person convicted of an offence in terms of any section mentioned in Column 1 of Table 1 of Schedule 8 may be sentenced to a fine or to imprisonment for a period not exceeding the period mentioned in Column 2 of that Table opposite the number of that section.

[Sub-s. (5) substituted by s. 28 (a) of Act 74 of 2008. Table substituted by s. 38 of Act No. 72 of 1997 and deleted by s.28 (b) of Act No. 74 of 2008]

- (6) Any *owner* convicted of an offence in terms of section 86 or 86A may be sentenced to-

- (a) withdrawal or suspension of the permit; or
- (b) a fine of three million rands or a period of imprisonment not exceeding five years or to both such fine or imprisonment.

[Sub-s. (6) added by s. 28 (b) of Act 74 of 2008.]

- (7) In the event of a conviction, the court may, in addition to imposing a sentence in respect of the offence and making an order, order the person convicted to-
  - (a) repair any damage caused, to the satisfaction of the *Chief Inspector of Mines*; and
  - (b) comply with a provision of *this Act* within a specified period of time.

[Sub-s. (7) added by s. 28 (c) of Act 74 of 2008.]

### **93. Magistrate's court has jurisdiction to impose penalties**

Despite anything to the contrary contained in any other law, a magistrate's court has jurisdiction to impose any penalty provided for in *this Act*.

### **94. Serving of documents**

Unless otherwise provided in *this Act*, a notice, order or other document which, in terms of *this Act*, must be served on or delivered to a person, will have been properly served or delivered if it has been either-

- (a) served on or delivered to that person; or
- (b) sent by registered post to that person's last known address; or
- (c) published in the *Gazette*.

### **95. Proof of facts**

In any legal proceedings in terms of *this Act*-

- (a) if it is alleged that a person at a *mine* is or was an *employee*, that person is presumed to be an *employee* at that *mine*, unless the contrary is proved;
- (b) if it is proved that a false statement, entry or information appears in or on a book, plan, *record* or other document, the person who kept that document is presumed to have made, entered, recorded or stored that statement, entry, *record* or information, unless the contrary is proved; and
- (c) subject to the provisions of sections 63 (1), 63 (3) and 71 (2), any statement, entry or information in or on any book, plan, record or other document is admissible in evidence as an admission of the facts in or on it by the person who made, entered, recorded or stored it unless it is proved that that person did not make, enter, record or store it within the scope of their functions.

## CHAPTER 8

### GENERAL PROVISIONS

#### 96. Delegation and exercise of power

- (1) The *Minister* may delegate any power conferred upon the *Minister* by or under this Act, except the power to make *regulations*, to the *Chief Inspector of Mines*.
- (2) The *Chief Inspector of Mines* may delegate any power or assign the performance of any duty conferred or imposed upon the *Chief Inspector of Mines* by or under *this Act*, or any other law, to-
  - (a) any *inspector*;
  - (b) any other person with appropriate knowledge and experience who is under the control of the *Chief Inspector of Mines*; or
  - (c) any other person, after consulting the *Council*.

[Sub-s. (2) substituted by s. 39 of Act 72 of 1997.]

- (3) A delegation or assignment under subsection (1) or (2) must be in writing, and may be subject to any conditions or restrictions determined by the *Minister* or *Chief Inspector of Mines*, as the case may be.
- (4) A delegation under subsection (1) or (2) does not prevent the exercise of that power by the *Minister* or *Chief Inspector of Mines*, as the case may be.

#### 97. Minister's power to add and change Schedules

- (1) The *Minister*, after consulting the *Council*, by notice in the *Gazette* may add to, change or replace any Schedule to *this Act* other than Schedules 2, 3 and 7 and, subject to subsection (5), Schedule 4.

[Sub-s. (1) substituted by s. 29 of Act 31 of 2003.]

- (2) The *Minister*, after consulting the *Council*, by notice in the *Gazette* may add to *this Act* a further Schedule containing matters in respect of which *health and safety committees* may consult.
- (3) The *Minister*, after consulting the *Council*, by notice in the *Gazette*, may add to *this Act* a further Schedule containing the constitution of the *Council* and its committees.

[Sub-s. (3) substituted by s. 40 (a) of Act 72 of 1997.]

- (4) The *Minister*, after consulting the *Council* and the Mining Qualifications Authority, by notice in the *Gazette* may add to *this Act* a further Schedule containing the constitution of the Mining Qualifications Authority and its committees.

[Sub-s. (4) substituted by s. 40 (a) of Act 72 of 1997.]

- (5) The *Minister*, after consulting the *Council*, by notice in the *Gazette* may add to Schedule 4 further items containing transitional provisions necessary for the implementation of *this Act*.
- (6) The *Minister*, after consulting the *Council* and in consultation with the Minister of Health, by notice in the *Gazette* may add to this Act a further Schedule to suspend or vary the application of the Occupational Diseases in Mines and Works Act, 1973 (Act 78 of 1973), except in relation to the determination or payment of compensation.
- (7) The *Minister* may add to, change or replace any page header or sidenote by notice in the *Gazette*.

## 98. Regulations

- (1) The *Minister*, after consulting the *Council*, by notice in the *Gazette* may make regulations regarding-
- (a) *health and safety* of persons at *mines*;
  - (b) *health and safety standards*, codes of practice and the provision of protective clothing, equipment and facilities in connection with *health and safety* at *mines*;
  - (c) the performance of work by *employees* exposed to a *health hazard* and the measures to eliminate, control and minimise *health risks*;
  - (d) *health and safety employer systems* at *mines*;
  - (e) orderly operations at *mines*;
  - (f) the powers, duties, functions and responsibilities of *employees* at *mines* and of the *employers*;
  - (g) the issuing of permits for the use of *machinery*, equipment and material at *mines* and the accreditation of persons to test machinery, equipment and material for these purposes;
  - (h) the conditions under which *machinery*, equipment or material may be erected or used at *mines*;
  - (i) the elimination, control and minimisation of *health and safety hazards*;
  - (j) requirements for the safe use, handling, processing, storage, transport and disposal of hazardous *substances* used in the mining process and waste produced at the *mine*;

- (k) the transport, handling, storage and use of explosives and the mixing of substances to make explosives at a *mine*;
- (l) the protection of equipment, structures, water sources and the surface of land;
- (m) the conditions in which equipment, structures, water sources or the surface of land may be used, and the prohibition on, or restriction of, the erection of equipment and structures and the use of water sources or the surface of land in the vicinity of the *working places* at a *mine*;
- (n) the making safe of undermined ground and of dangerous excavations, tailings, waste dumps, ash dumps and structures of whatever nature made in the course of *prospecting* or mining operations or which are connected with those operations;
- (o) the monitoring and control as contemplated in section 49 (3) (a) of those environmental aspects at *mines* which affect, or may affect, the *health and safety of employees* or other persons;
- (p) standards of housing and nutrition of *employees* who are accommodated at the *mine*;
- (q) initial standards of fitness to perform work involving exposure to a *health hazard*, standards of fitness to continue performing such work and the conditions under which *employees* may be withdrawn either temporarily or permanently from such work;
- (r) standards of *occupational hygiene* measurement techniques, the frequency and manner in which measurements must be made, the manner of record keeping and reporting of *occupational hygiene* measurements made at *mines*;
- (s) standards of medical tests or *biological monitoring* used in *medical surveillance*, the persons who may carry out those tests and that monitoring, the interpretation of results of *medical surveillance*, the frequency for carrying out periodic *medical surveillance*, the keeping of records of *medical surveillance* and the reporting of confidential extracts from records of *medical surveillance*;
- (t) the manner of reporting *prescribed accidents* and *health* matters at *mines*, the keeping of records and statistics in relation to accidents and *health* matters and the provision of emergency medical treatment after an accident or in connection with a *health* matter;
- (u) the manner of reporting *prescribed occupational diseases* at *mines*, the keeping of *records* in relation to *occupational diseases* and the control and provision of medical services in connection with *occupational diseases*;
- (v) the form of an exit certificate and the content of medical examinations associated with an exit certificate;

- (w) the form of any application to be made in terms of *this Act* and of any consent or document required to be submitted with an application, and the information or details which must accompany an application;
- (x) the form of any register, record, notice, sketch plan or information to be kept, given, published or submitted in terms of or for the purposes of *this Act*, and the manner in which a register, record, notice, sketch plan or information is to be kept, given, published or submitted;
- (y) the drawing up and keeping of *mine* plans and the submission of statistical and other reports in relation to *minerals, mines and machinery*;
- (z) negotiations and consultations in terms of sections 26 and 33 and the time periods within which the negotiations and consultations must be completed;
- (zA) qualifications for appointment as a *health and safety representative*, the election and terms of office of representatives, the circumstances in which a representative must vacate office, the circumstances in which a representative may be removed from office, the manner in which vacancies may be filled, the functions of representatives, the manner in which the functions of representatives must be conducted, the facilities and assistance that must be provided to representatives and the training of representatives;
- (zB) the establishment of *health and safety committees*, the election and appointment of members to a committee, the terms of office of members of a committee, the circumstances in which a member must vacate office, the circumstances in which a member may be removed from office, the manner in which vacancies may be filled, meetings of the committees, the rules and procedures of the committees, the facilities and assistance that must be provided to committees and the training of the members of committees;
- (zC) the appointment of members to the *Council* in accordance with the provisions of Schedule 2, the functions of the *Council*, the payment of allowances to members, the funding of the *Council* and its committees, and any other matter the regulation of which, in the opinion of the *Minister*, may be necessary for the proper functioning of the *Council* and its committees.
- (zD) the appointment of members of the Mining Qualifications Authority in accordance with Schedule 2;
- (zE) qualifications for *inspectors*;
- (zF) the establishment of one or more accounts and the control of those accounts by the *Chief Inspector of Mines* with a view to funding-
  - (i). research and surveys regarding, and for the promotion of *health and safety* at *mines*; and

- (ii). the administration costs of the overall programme for relevant *health and safety* research;

[Para. (zF) substituted by s. 41 (a) of Act 72 of 1997.]

- (zG) the manner in which the presence of witnesses at inquiries must be obtained in terms of section 71, and the procedures to be followed at inquiries;
- (zH) procedures to be followed in respect of appeals to the *Chief Inspector of Mines or Medical Inspector* under *this Act*;
- (zI) fees payable in relation to applications, appeals and documents;
- (zJ) the payment of levies by *mines* on the basis of *health and safety risk* for
  - (i). research and surveys regarding, and for the promotion of *health and safety* at *mines*; and
  - (ii). the administration costs of the overall programme for relevant *health and safety* research.

[Para. (zJ) substituted by s. 41 (b) of Act 72 of 1997.]

- (zK) the imposition of monetary and other obligations in connection with safe-making referred to in paragraph (n) on persons who
  - (i). are or were responsible for the undermining of any ground or the making of any excavations, tailings, waste dumps, ash dumps or structures or for the dangerous condition of any of them; or
  - (ii). will benefit from that safe-making;
- (zL) the assumption by the State of responsibility for safe-making referred to in paragraph (n) in particular cases;
- (zM) the use of plain language in documents that are required to be published, displayed or distributed in terms of *this Act*; and
- (zN) any other matter the regulation of which may be necessary or desirable in order to achieve the objects of *this Act*;

[Para. (zN) substituted by s. 29 (a) of Act 74 of 2008.]

- (zO) the system of fines contemplated in sections 55A and 55B including *regulations* regarding forms and documents, periods of time, procedures, records to be kept and the payment of fines; and

[Para. (zO) added by s. 41 (c) of Act 72 of 1997 and substituted by s. 29 (b) of Act 74 of 2008.]

- (zP) minimum standards for the establishment, functioning, training, equipping and staffing of rescue services at *mines* and reporting by *employers* in respect of rescue services.

[Para. (zP) added by s. 29 (c) of Act 74 of 2008.]

- (2) No *regulation* may be made relating to—
  - (a) State revenue or expenditure except with the concurrence of the Minister of Finance;
  - (b) any *health* matter, except after consultation with the Minister for Health.
- (3) The *Minister*, after consultation with the Mining Qualifications Authority, by notice in the *Gazette*, may make *regulations* to provide for—
  - (a) the qualifications for employment in any occupation;
  - (b) conditions for acceptance as a candidate for examinations;
  - (c) the issuing of certificates of competency in respect of any occupation;
  - (d) the funding of the Mining Qualifications Authority including the manner by which such funds may be raised;
  - (e) procedures for assessing competency;
  - (f) the accreditation of assessors;
  - (g) the establishment of examination bodies;
  - (h) the appointment of examiners and moderators;
  - (i) the monitoring and administration of examinations;
  - (j) the setting of examination fees;
  - (k) the accreditation of providers of training;
  - (l) the establishment of quality assurance procedures;
  - (m) the issue of qualifications;
  - (n) the registering of qualifications; and
  - (o) any other matter, the regulation of which may be necessary or desirable in order to promote the activities of the Mining Qualifications Authority.
- (4) *Regulations* made in terms of subsection (3) must be in accordance with the National Qualifications Framework approved in terms of the South African Qualifications Authority Act, 1995 (Act 58 of 1995).
- (5) The *Minister* may incorporate all or part of any *health* and *safety* standard, without restating the text of it, in a *regulation* by referring to the number, title and year of issue of that *health* and *safety* standard or, to any other particulars by which that *health* and *safety* standard is sufficiently identified.
- (6) The *Minister* must consult the *Council* before incorporating a *health* and *safety* standard in a *regulation*.
- (7) The *Minister*, after consulting the *Council*, by notice in the *Gazette* may make *regulations* imposing any function of an *employer* on any person, other than the *employer*, who employs *employees*.

[Sub-s. (7) substituted by s. 41 (d) of Act 72 of 1997.]

- (8) For the purposes of *this Act*, any *health and safety standard* referred to in subsection (5) incorporated in a *regulation* is deemed to be a *regulation*, in so far as it is not repugnant to any *regulation* made under subsection (1).
- (9) Whenever a *health and safety standard* which has been incorporated in a regulation is subsequently amended or substituted by the competent authority, the *regulation* referred to in subsection (5) incorporating that health and safety standard is deemed to refer to that *health and safety standard* as so amended or substituted, unless a contrary intention is stated in the notice.
- (10) The *Chief Inspector of Mines* must keep a register of particulars of
  - (a) every amendment or substitution of a *health and safety standard* incorporated in the *regulations*;
  - (b) the publication of any amendment or substitutions;
  - (c) every publication in which a *health and safety standard* that has been incorporated in the *regulations* under subsection (5) was published; and
  - (d) the place in the Republic where each of those standards and publications is obtainable or otherwise available for inspection.
- (11) The *Chief Inspector of Mines* must allow any person to inspect the register kept in terms of subsection (9) and to make an extract from it.
- (12) The provisions of section 31 of the Standards Act, 1993 (Act 29 of 1993), do not apply to any incorporation of a *health and safety standard* or to any amendment or substitution of a *health and safety standard* under this section.

## **99. Amendment of laws**

Each of the laws referred to in Schedule 3 is hereby amended to the extent specified in that Schedule.

## **100. Transitional arrangements**

- (1) The amendment of laws referred to in Schedule 3 does not affect any transitional arrangement made in Schedule 4.
- (2) The transitional arrangements in Schedule 4 must be read and applied as substantive provisions of *this Act*.

## **101. Interpretation**

- (1) .....

[Sub-s. (1) deleted by s. 42 of Act 72 of 1997.]

- (2) Subject to sections 26 and 33, no agreement may affect any-
  - (a) provision of *this Act*;
  - (b) condition, notice, order, instruction, prohibition, authorisation, permission, consent, exemption, certificate or document determined, given, issued, promulgated or granted by or under this Act by the *Minister*, *Chief Inspector of Mines*, *inspector* or any other person authorised under *this Act*; or
  - (c) any condition contained in any exemption.
- (3) Subsection (2) applies to any agreement whether entered into before or after the commencement of *this Act* or before or after the issuing of the documents referred to in subsection (2).
- (4) Any notice, order or any other document issued in good faith in terms of *this Act*, is valid according to its terms, despite any want of form or lack of power on the part of any person to issue or authenticate it, provided the necessary power is subsequently conferred upon that person.

## 102. Definitions

In *this Act*, unless the context otherwise indicates-

**'biological monitoring'** means a planned programme of periodic collection and analysis of body fluid, tissues, excreta or exhaled air in order to detect and quantify the exposure to or absorption of any *substance or organism*;

**'chief executive officer'** means the person who is responsible for the overall management and control of the business of an *employer*;

[Definition of 'chief executive officer' inserted by s. 43 (a) of Act 72 of 1997.]

**'Chief Inspector of Mines'** means the *officer* appointed in terms of section 48 (1) and includes any officer acting in that capacity;

**'Commission'** means the Commission for Conciliation, Mediation and Arbitration established in terms of section 112 of the *Labour Relations Act*;

**'Constitution'** means the Constitution of the Republic of South Africa, 1996;

[Definition of 'Constitution' inserted by s. 30 (a) of Act 74 of 2008.]

**'Council'** means the Mine Health and Safety Council established by section 41 (1);

**'Department'** means the Department of Minerals and Energy;

[Definition of 'Department' substituted by s. 43 (b) of Act 72 of 1997.]

**'employee'** means any person who is employed or working at a *mine*;  
**'employer'** means an *owner*;

[Definition of '*employer*' substituted by s. 43 (c) of Act 72 of 1997.]

**'engine'** means any appliance or combination of appliances by which power, other than human or animal power, can be applied to do mechanical work;

**'hazard'** means a source of or exposure to danger;

**'health'** refers to *occupational health* at *mines*;

**'health and safety committee'** means a *health and safety committee* established in terms of section 34;

**'health and safety equipment'** means an article or part of an article that is manufactured, provided or installed in the interest of the *health* or *safety* of any person;

**'health and safety representative'** means an *employee* elected and appointed in terms of section 29;

**'health and safety standard'** means any *standard*, irrespective of whether or not it has the force of law, which, if applied for the purposes of *this Act*, will in the opinion of the *Minister* promote the attainment of an object of *this Act*;

**'health hazard'** means any physical, chemical or biological *hazard to health*, including anything declared to be a *health hazard* by the *Minister*;

**'health-threatening occurrence'** means any occurrence that has or may have the potential to cause *serious illness* or damage to *health*;

**'healthy'** means free from illness or injury attributable to occupational causes;

**'inspector'** means an officer appointed in terms of section 49 (1) (c), a *Medical Inspector* and any *Principal Inspector of Mines*;

[Definition of '*inspector*' substituted by s. 43 (d) of Act 72 of 1997.]

**'Labour Court'** means the *Labour Court* established by section 151 of the *Labour Relations Act*;

**'Labour Relations Act'** means the *Labour Relations Act*, 1995 (Act 66 of 1995);

**'machinery'** means any *engine*, boiler or appliance or any combination of them, which is situated at a *mine* and used or intended to be used-

(a) for generating, developing, receiving, storing, converting, transforming, transmitting or distributing any form of power or energy; or

(b) for conveying persons, material or *minerals*;

**'manager'** means any competent person appointed in terms of section 3 (1) (a);

**'Medical Inspector'** means a *Medical Inspector* appointed in terms of section 49 (1) (b);

**'medical practitioner'** means a *medical practitioner* as defined in the Medical, Dental and Supplementary Health Service Professions Act, 1974 (Act 56 of 1974);

**'medical surveillance'** means a planned programme of periodic examination, which may include clinical examinations, *biological monitoring* or medical tests, of *employees* by an *occupational health practitioner* or by an *occupational medical practitioner* contemplated in section 13;

**'mine'** means, when-

(a) used as a noun-

(i). any borehole, or excavation, in any tailings or in the earth, including the portion of the earth that is under the sea or other water, made for the purpose of searching for or winning a *mineral*, whether it is being worked or not; or

(ii). any other place where a *mineral* deposit is being exploited, including the *mining* area and all buildings, structures, *machinery*, *mine* dumps, access roads or objects situated on or in that area that are used or intended to be used in connection with searching, winning, exploiting or *processing* of a *mineral*, or for *health* and *safety* purposes. But, if two or more excavations, boreholes or places are being worked in conjunction with one another, they are deemed to comprise one mine, unless the *Chief Inspector of Mines* notifies their *employer* in writing that those excavations, boreholes or places comprise two or more mines; or

(iii). a *works*; and

(b) used as a verb, the making of any excavation or borehole referred to in paragraph (a) (i), or the exploitation of any *mineral* deposit in any other manner, for the purpose of winning a *mineral*, including prospecting in connection with the winning of a *mineral*;

**'mineral'** means any *substance*, excluding water, but including sand, stone, rock, gravel and clay, as well as soil, other than top soil-

(a) whether that *substance* is in solid, liquid or gaseous form;

(b) that occurs naturally in or on the earth, in or under water or in tailings; and

(c) that has been formed by or subjected to a geological process;

**'Mineral and Petroleum Resources Development Act'** means the *Mineral and Petroleum Resources Development Act, 2002* (Act 28 of 2002); [Definition of 'Mineral and Petroleum Resources Development Act' inserted by s. 30 (b) of Act 74 of 2008.]

**'Minerals Act'** .....

[Definition of 'Minerals Act' deleted by s. 30 (c) of Act 74 of 2008.]

**'mining area'** means a prospecting area, mining area, retention area, exploration area and production area as defined in section 1 read with section 65 (2) (b) of the *Petroleum and Mineral Resources Development Act, 2002* (Act 28 of 2002).

[Definition of 'mining area' substituted by s. 110 of Act 28 of 2002.]

**'Minister'** means the Minister of Minerals and Energy;

[Definition of 'Minister' substituted by s. 43 (e) of Act 72 of 1997.]

**'occupational disease'** means any *health* disorder including a compensatable disease as contemplated by the Occupational Diseases in Mines and Works Act, 1973 (Act 78 of 1973), and an occupational disease contemplated by the Compensation for Occupational Injuries and Diseases Act, 1993 (Act 130 of 1993);

[Definition of 'occupational disease' substituted by s. 43 (f) of Act 72 of 1997.]

**'occupational health'** includes *occupational hygiene* and *occupational medicine*;

**'occupational health practitioner'** .....

[Definition of 'occupational health practitioner' deleted by s. 30 (d) of Act 74 of 2008.]

**'occupational hygiene'** means the anticipation, recognition, evaluation and control of conditions at the *mine*, that may cause illness or adverse *health* effects to persons;

**'occupational medicine'** means the prevention, diagnosis and treatment of illness, injury and adverse health effects associated with a particular type of work;

**'occupational medical practitioner'** means a *medical practitioner* who holds a qualification in *occupational medicine*, or an equivalent qualification, recognised by the Health Professions Council of South Africa;

[Definition of 'occupational medical practitioner' substituted by s. 30 (e) of Act 74 of 2008.]

**'officer'** means a woman or man who has been appointed permanently despite the fact that such appointment may be on probation to a post contemplated in section 8 (1) (a) of the Public Service Act, 1994 (Proclamation 103 of 1994), and includes a woman or man contemplated in section 8 (1) (b) or 8 (3) (c) of that Act;

**'organism'** means any biological entity which is capable of causing illness to persons;

**'owner'-**

(a) in relation to a *mine*, means—

(i). the holder of a *prospecting* permit or mining authorisation issued under the *Mineral and Petroleum Resources Development Act*;

[Sub-para. (i) substituted by s. 30 (f) of Act 74 of 2008.]

(ii). if a prospecting permit or mining authorisation does not exist, the person for whom the activities contemplated in paragraph (b) of the definition of '*mine*' are undertaken, but excluding an independent contractor; or

(iii). if neither (i) or (ii) is applicable, the last person who worked the mine or that person's successor in title; and

(b) in relation to a works, means the person who is undertaking the activities contemplated in the definition of '*works*', but excluding an independent contractor;

[Definition of 'owner' substituted by s. 43 (g) of Act 72 of 1997.]

**'prescribed'** means prescribed by *regulation*;

**'Principal Inspector of Mines'** means the *officer* appointed by the *Chief Inspector of Mines* to be in charge of *health and safety* in any region established in terms of section 47 (2);

[Definition of 'Principal Inspector of Mines' inserted by s. 43 (h) of Act 72 of 1997.]

**'processing'** means the recovering, extracting, concentrating, refining, calcining, classifying, crushing, milling, screening, washing, reduction, smelting or gasification of any *mineral*, and '**process**' has a similar meaning;

**'prospecting'** means intentionally searching for any *mineral* by means that disturb any tailings or the surface of the earth, including the portion of the earth that is under the sea or under other water, by means of excavation or drilling, but does not include *mine* as a verb;

**'Public Finance Management Act'** means the Public Finance Management Act, 1999 (Act 1 of 1999);

[Definition of 'Public Finance Management Act' inserted by s. 30 (g) of Act 74 of 2008.]

**'reasonably practicable'** means practicable having regard to-

- (a) the severity and scope of the *hazard* or *risk* concerned;
- (b) the state of knowledge reasonably available concerning that *hazard* or *risk* and of any means of removing or mitigating that *hazard* or *risk*;
- (c) the availability and suitability of means to remove or mitigate that *hazard* or *risk*; and
- (d) the costs and the benefits of removing or mitigating that *hazard* or *risk*;

**'record'** includes information contained in or on a computer printout, tape or disc or any other computer storage medium;

**'record of medical surveillance'** means a *record* kept in terms of section 13 (3);

**'registered trade union'** means a *trade union registered* in terms of the *Labour Relations Act*;

**'regulation'** means a regulation made under section 98 or in force in terms of item 4 of Schedule 4;

**'representative trade union'** means a *registered trade union*, or two or more *registered trade unions* acting jointly, that have as members the majority of *employees* at a *mine*;

**'risk'** means the likelihood that occupational injury or harm to persons will occur;

**'safety'** means safety at *mines*;

**'serious injury'** means any injury which is reportable under *this Act*;

**'serious illness'** means any illness resulting from occupational exposure that affects the *health* of a person to the extent that it incapacitates the affected person from resuming that person's normal or similar occupation for four days or more;

**'standard'** means any provision occurring-

- (a) in a specification, compulsory specification, code of practice or standard method as defined in section 1 of the Standards Act, 1993 (Act 29 of 1993); or
- (b) in any specification, code or any other directive having standardisation as its aim and issued by an institution or organisation inside or outside the Republic which, whether generally or with respect to any particular article or matter and whether internationally or in any particular country or territory, seeks to promote standardisation;

**'substance'** includes any solid, liquid, vapour, gas or aerosol, alone or in any combination;

**'this Act'** includes-

- (a) the section numbers, but not the page headers, headings or sidenotes;
- (b) the Schedules;
- (c) the *regulations*; and
- (d) any condition, suspension, notice, order, instruction, prohibition, authorisation, permission, consent, exemption, certificate or document determined, given, issued, promulgated or granted by or under this Act by the *Minister, Chief Inspector of Mines*, an inspector, any person authorised under section 49 (4) or any person to whom a power has been delegated or the performance of a duty has been assigned under section 96;

[Para. (d) substituted by s. 43 (i) of Act 72 of 1997.]

**'topsoil'** means topsoil as defined in section 1 of the *Mineral and Petroleum Resources Development Act*;

[Definition of 'topsoil' inserted by s. 43 (j) of Act 72 of 1997 and substituted by s. 30 (h) of Act 74 of 2008.]

**'working place'** means any place at a *mine* where *employees* travel or work;

**'works'** means any place, excluding a *mine*, where any person carries out-

- (a) the transmitting and distributing to another consumer of any form of power from a *mine*, by the *employer* thereof, to the terminal point of bulk supply or where the supply is not in bulk, to the power supply meter on any such other consumer's premises; or
- (b) training at any central rescue station; or
- (c) the making, repairing, re-opening or closing of any subterranean tunnel; or
- (d) any operations necessary or in connection with any of the operations listed in this paragraph.

### **103. Occupational Health and Safety Act, 1993, not applicable**

The Occupational Health and Safety Act, 1993 (Act 85 of 1993), is not applicable to any matter in respect of which any provision of *this Act* is applicable.

#### **104. Civil liability of State**

The State Liability Act, 1957 (Act 20 of 1957), applies with the changes required by the context in respect of the Mine Health and Safety Inspectorate, and in such application a reference in that Act to the *Minister* of a department concerned must be construed as a reference to the Chief Inspector of Mines.

[S. 104 substituted by s. 31 of Act 74 of 2008.]

#### **105. Act binds State**

The provisions of *this Act* bind the State except in so far as any criminal liability is concerned.

#### **106. Short title and commencement**

- (1) *This Act* is called the Mine Health and Safety Act, 1996.
- (2) *This Act* comes into operation on a date fixed by the President by proclamation in the *Gazette*.

### **SCHEDULE 1**

#### **GUIDELINES FOR DETERMINING THE NUMBER OF FULL-TIME HEALTH AND SAFETY REPRESENTATIVES**

##### **1. Introduction**

- (1) This Schedule contains guidelines for determining the number of full-time *health and safety representatives*.
- (2) *This Act* places the highest value on agreement. The parties referred to in section 26 must refer to this Schedule, using its guidelines in a manner that best suits the particular *mine*.
- (3) If agreement is not reached, the Commissioner appointed by the *Commission* must refer to this Schedule, using its guidelines in a manner that best suits the particular *mine*.

##### **2. Minimum threshold**

- (1) There should be a full-time *health and safety representative* in every *mine* that requires the use of a full-time *health and safety representative*, taking into account-
  - (a) the volume, size and physical location of the *mine*;
  - (b) the *health and safety record* of the *mine*;

- (c) the number of designated *working places*; and
  - (d) the objects of *this Act*.
- (2) The guidelines as to the size of the *mine* that should have a full-time *health and safety representative* is a *mine* with 500 *employees*.

### **3. Number of full-time health and safety representatives**

- (1) The formula for determining the number of full-time *health and safety representatives* should take into account-
  - (a) the nature, size and physical location of the *mine*;
  - (b) the *health and safety record* of the *mine*;
  - (c) the number of designated *working places*;
  - (d) the number of *health and safety representatives*;
  - (e) the number of shafts and the number of *employees* at the shaft; and
  - (f) the objects of *this Act*.

## **SCHEDULE 2**

### **NOMINATION AND APPOINTMENT OF MEMBERS TO TRIPARTITE INSTITUTIONS**

[Schedule 2 amended by ss. 44 and 47 of Act 72 of 1997.]

The *Minister* must make the regulations referred to in sections 42 (2) and 45 (2) in a manner that ensures that-

- (a) members appointed to represent *employees* are either-
  - i). all nominated by agreement between *registered trade unions* representing at least 75% of *employees* belonging to such trade unions in the mining industry; or
  - ii). failing agreement in terms of subparagraph (i)-
    - (aa) at least half are persons nominated by a *registered trade union* or unions representing the majority of *employees* belonging to such trade unions in the mining industry; and
    - (bb) the rest are persons nominated by *registered trade unions* and appointed in accordance with the significance of the trade unions concerned; and
- (b) members appointed to represent *employers* are either-
  - i). all nominated by agreement between *employers' organisations* whose members employ at least 75% of *employees* in the mining industry; or
  - ii). failing agreement in terms of subparagraph (i)-

(aa) at least half are persons nominated by an employers' organisation or organisations whose members employ the majority of the employees in the mining industry; and

[Item (aa) substituted by s. 44 of Act 72 of 1997.]

(bb) the rest are persons nominated by employers' organisations and appointed in accordance with the significance of the organisations concerned.

## **SCHEDULE 3**

### **AMENDMENT OF LAWS**

[Schedule 3 amended by ss. 45 and 47 of Act 72 of 1997.]

#### **A: MINERALS ACT, 1991**

1. *Amends section 1 of the Minerals Act 50 of 1991, as follows: paragraph (a) deletes the definitions of 'certificated', 'engine', 'investigating officer', 'machinery', 'manager', 'mine safety committee', 'peace officer', 'regional director', 'regional mining engineer', 'serious bodily harm' and 'works'; paragraph (b) inserts the definition of 'Chief Inspector of Mines'; and paragraph (c) inserts the definition of 'Director: Mineral Development'.*

*Section 1 of the Minerals Act, 1991 (in this Schedule referred to as the principal Act), is hereby amended—*

- (a) by the deletion of the definitions of "certificated", "engine", "investigating officer", "machinery", "manager", "mine safety committee", "peace officer", "regional director", "regional mining engineer", "serious bodily harm" and "works";*
- (b) by the insertion before the definition of "Department" of the following definition:  
" 'Chief Inspector of Mines' means the Chief Inspector of Mines appointed in terms of section 48 of the Mine Health and Safety Act, 1996;"; and*
- (a) by the insertion before the definition of "elevator" of the following definition:  
" 'Director: Mineral Development' means any officer appointed in terms of section 4;".*

2. *Amends section 2 of the Minerals Act 50 of 1991 by deleting subsection (2).  
Section 2 of the principal Act is hereby amended by the deletion of subsection (2).*

3. Amends section 8 of the Minerals Act 50 of 1991 by substituting subsection (1).

*Section 8 of the principal Act is hereby amended by the substitution for subsection (1) of the following subsection:*

*"1) No holder of any prospecting permit shall remove any mineral found by [him] the holder in or on land or in tailings in the course of prospecting operations, from such land or the land on which such tailings are situated or dispose of any such mineral, excluding samples of any such mineral removed for tests thereon or identification or analysis thereof, except with the written consent of the holder of the right to such mineral in respect of such land or tailings, and with written permission granted by the [regional director] Director: Mineral Development concerned, subject to such conditions in respect of [safety and health] optimal utilization or rehabilitation as may be [determined by him and] specified therein."*

4. Amends section 9 of the Minerals Act 50 of 1991, as follows: paragraph (a) substitutes subsection (3) (a); paragraph (b) substitutes subsection (3) (c); paragraph (c) substitutes subsection (5) (c); paragraph (d) deletes the word 'and' at the end of subsection (5) (d) and substitutes subsection (5) (e); paragraph (e) adds subsection (5) (f); and paragraph (f) adds subsections (7) and (8).

*Section 9 of the principal Act is hereby amended-*

- (a) *by the substitution for paragraph (a) of subsection (3) of the following paragraph:*
  - "a) with the manner in which and scale on which the applicant intends to mine the mineral concerned optimally [and safely] under such mining authorization;"*
- (b) *by the substitution for paragraph (c) of subsection (3) of the following paragraph:*
  - " c) that such applicant has the ability and can make the necessary provision to mine such mineral optimally [and safely] and to rehabilitate such disturbances of the surface; and";*
- (c) *by the substitution for paragraph (c) of subsection (5) of the following paragraph:*
  - " c) particulars about the manner in which and scale on which the applicant intends to mine such mineral under such mining authorization optimally [and safely] and to rehabilitate disturbances of the surface which may be caused by [his] the intended mining operations;"*

- (d) by the deletion of the word "and" at the end of paragraph (d) of subsection (5) and by the substitution for paragraph (e) of that subsection of the following paragraph.
    - " e) particulars about the applicant's ability to make the necessary provision to mine such mineral optimally [and safely] and to rehabilitate such disturbances of the surface; and";
  - (e) by the addition to subsection (5) of the following paragraph:
    - " f) particulars about the applicant's ability to mine in a healthy and safe manner, "; and
  - (f) by the addition of the following subsections:
    - " 7) The Director: Mineral Development shall consult as to the issuing of a mining authorisation with the Chief Inspector of Mines, and no mining authorisation may be issued unless the Chief Inspector of Mines is satisfied that the applicant has the ability and can make the necessary provision to mine in a healthy and safe manner.
    - " 8) Subsection (7) shall apply mutatis mutandis in relation to the issuing of a prospecting permit in terms of section 6 or a permission in terms of section 8.".
5. Amends section 12 of the Minerals Act 50 of 1991 by adding subsection (2), the existing section becoming subsection (1).  
Section 12 of the principal Act is hereby amended by the addition of the following subsection, the existing section becoming subsection (1):
- " 2) Before issuing a certificate referred to in subsection (1), the Director: Mineral Development shall consult with the Chief Inspector of Mines in that regard, and no such certificate shall be issued if the Chief Inspector of Mines is of opinion that the provisions of the Mine Health and Safety Act, 1996, have not been complied with by the holder referred to in subsection (1).".
6. Substitutes section 15 of the Minerals Act 50 of 1991.

Section 15 of the principal Act is hereby substituted for the following section:

**"15. Restriction on issuing of more than one prospecting permit or mining authorization in respect of same mineral and land**

No prospecting permit or mining authorization shall be issued in respect of any mineral in respect of land or tailings, as the case may be, if a prospecting permit or mining authorization has already been issued in respect of such mineral and land or tailings, as the case may be, unless the [regional director] Director: Mineral Development is satisfied that such first-mentioned issuing will not detrimentally affect the object of this Act in relation to optimal exploitation of minerals [safety, health] or rehabilitation. ".

7. Amends section 25 of the Minerals Act 50 of 1991 by substituting subsection (2).

Section 25 of the principal Act is hereby amended by the substitution for subsection (2) of the following subsection:

- " 2) The Manager of a mine [or works] may search or cause to be searched any person employed at such mine [or works] for possession of any mineral in respect of which the possession has been prohibited under subsection (1).".
8. Repeals sections 26 to 37 inclusive of the Minerals Act 50 of 1991.  
Sections 26 to 37 of the principal Act are hereby repealed.
  9. Amends section 39 (3) of the Minerals Act 50 of 1991 by substituting the words following paragraph (c).

Section 39 of the principal Act is hereby amended by the substitution in subsection (3) of the words following upon paragraph (c) of the following words:

"he or she shall consult as to that with the Chief Inspector of Mines and each department charged with the administration of any law which relates to any matter affecting the environment.".

10. Amends section 41 of the Minerals Act 50 of 1991 by substituting subsection (1).  
Section 41 of the principal Act is hereby amended by the substitution for subsection (1) of the' following subsection:

" 1) *The [regional director] Director: Mineral Development may issue directives and determine conditions in relation to the use of the surface of land comprising the subject of any prospecting permit or mining authorization [or upon which a works is situated] in order to limit any damage to or the disturbance of the surface, vegetation, environment or water sources to the minimum which is necessary for any prospecting or mining operations or processing of any mineral: Provided that such directives and conditions shall not be construed as placing the holder of any such prospecting permit or mining authorization [or the owner of such works, as the case may be], in a better position vis-à-vis the owner of such land in relation to the use of the surface thereof.*".

11. Amends section 51 of the Minerals Act 50 of 1991, as follows: paragraph (a) substitutes subsection (2) (b); and paragraph (b) deletes subsection (2) (d).

*Section 51 of the principal Act is hereby amended—*

- (a) by the substitution for paragraph (b) of subsection (2) of the following paragraph:
- " b) question any person and take a statement from [him] such person, in which case section [29(4)] 53C(4) shall be applicable mutatis mutandis;"; and
- (b) by the deletion of paragraph (d) of subsection (2).

12. Inserts sections 53A to 53D inclusive in the Minerals Act 50 of 1991.

*The following sections are hereby inserted after section 53:*

**"53A. Orders, suspensions and instructions**

- 1) If an officer authorised by the Director-General is of the opinion that any contravention or suspected contravention of or any failure to comply with any provision of this Act or any condition to which any authorization, exemption, environmental management programme or permission granted or approved in terms of this Act, is subject, occurs at any mine or place presumed to be a mine, such officer may-
- a) order the owner, manager or any official, employee or agent of such mine or place to take immediate rectifying steps; or
- b) order that the operations at such mine or place or part thereof be suspended, and give such instructions in connection therewith as he or she may deem desirable.
- 1) Any order referred to in subsection (1)(b) shall be confirmed or set aside by the Director: Mineral Development, who shall notify the owner or manager of the mine or presumptive mine concerned in writing of his or her decision as soon as practicable.

- 2) Any order given under subsection (1)(b) shall take effect from the time fixed by the officer concerned and shall remain in force until set aside by the Director: Mining Development or until the instructions of the officer have been complied with.

### **53B. Inquiries**

- 1) If any contravention or suspected contravention of or any failure or suspected failure to comply with any provision of this Act occurs at any mine or place presumed to be a mine, an inquiry may be held into any such matter by an officer designated by the Director-General.
- 2) The Director-General may, either before the commencement or at any stage of an inquiry held in terms of subsection (1) or (4) designate one or more other officers to assist in the holding of such inquiry and may designate an officer to Preside at such inquiry.
- 3) Any investigating officer holding an inquiry into any matter in terms of this section shall, if necessary with the assistance of an interpreter, take down or record by mechanical means the evidence given thereat and submit a written copy thereof with a report thereon to the Director: Mineral Development, who shall transmit it to the Director-General, unless otherwise directed by the latter.
- 4) Upon consideration of the evidence and report referred to in subsection (3) the Director-General may require that the matter concerned be inquired into further.

### **53C. Attendance and examination of witnesses at inquiry**

- 1) An investigating officer holding an inquiry in terms of section 53B(1) or (4) into any matter or who is to preside or is presiding at such inquiry may, for the purposes of such inquiry.
  - a) direct or summon any person to appear before him or her at such time and place as may be determined by him or her; or
  - b) order any person present at the place where such inquiry is being held
    - (i). to give evidence thereat;
    - (ii). to produce any document or thing which he or she may deem necessary for the proper disposal of such inquiry; or
    - (iii). to perform any other act in relation to this Act which he or she may direct.

2)

- a) *If any person has reason to believe that he or she may be held liable for any matter which shall or may be inquired into in terms of section 53B(1) or (4), he or she shall have the right, but is, subject to subsection (1), not compelled, to be present at any such inquiry and to be assisted or represented by another person.*
- b) *If at any inquiry held in terms of section 53B(1) or (4) evidence has been or is being given from which any person may reasonably infer that he or she may be charged with contravening any provision of this Act or failing to comply therewith or may be held responsible in any manner for the matter comprising the subject of such inquiry, he or she shall have the right, but is not compelled, to give evidence and, either personally or through a representative-*
  - (iv) to be heard;*
  - (v) to call any witness or to request the investigating officer to direct or summon any witness on his or her behalf, either to give evidence thereat or to produce any document or thing;*
  - (vi) to cross-examine anybody giving evidence at such inquiry; and*
  - (vii) to peruse any document which has been presented as evidence.*
- 3) *Any person who satisfies an investigating officer that he or she has a material interest in any inquiry held in terms of section 53B(1) or (4) may, either personally or through a representative, put such questions as the investigating officer may consider relevant to such inquiry, to a witness giving evidence thereat.*
- 4)
- a) *Any investigating officer may, at any inquiry held in terms of section 53B(1) or (4), administer an oath which is normally administered to a witness in a court of law, to any witness before giving evidence or, if objecting to taking such oath, he or she may make an affirmation, and such affirmation shall have the same legal force and effect as such oath.*

- b) *No person called as a witness at any inquiry held in terms of section 53B(1) or (4) shall, when he or she is requested thereto, refuse or fail to take an oath or, if he or she objects thereto, to make an affirmation.*
  - c) *No person to whom an oath referred to in paragraph (a) has been administered or who has made an affirmation so referred to shall give evidence knowing it to be false or make a statement under oath or affirmation which is contrary to any statement which that person made under oath or affirmation on a previous occasion.*
- 5) *Any witness at any inquiry held in terms of section 53B(1) or (4) shall have the same privileges in relation to the answering of questions or the production of documents or things as such witness would have had under the same circumstances if the witness had been summoned as such before a court of law.*
- 6)
- a) *Any inquiry or any part thereof held in terms of section 53B(1) or (4) shall, in so far as it is in the opinion of the investigating officer practically possible or desirable, be held in public.*
  - b) *The investigating officer may decide whether any witness who has to give evidence or has given evidence at any inquiry referred to in paragraph (a), shall be present whilst other witnesses are giving their evidence thereat.*

**53D. Obstruction of inquiry or investigating officer or failure to render assistance**

*No person shall, in relation to any inquiry held in terms of section 53B(1) or (4)-*

- a) *without reasonable justification fail to comply with any direction, summons or order issued or given under section 53C(1) or by virtue of a request under section 53C(2)(b)(ii);*
- b) *refuse or fail to answer to the best of his or her knowledge any question lawfully put to him or her by or with the concurrence of the investigating officer: Provided that no person shall be obliged to answer any question whereby that person may incriminate himself or herself;*

- c) *in any manner whatsoever advise, encourage, incite, order or persuade any person who has been directed, summoned or ordered under section 53C(1) or by virtue of a request under section 53C(2)(b)(ii), not to comply with such direction, summons or order or in any manner prevent him or her from doing so;*
- d) *refuse or fail, when required thereto by the investigating officer, to furnish him or her with the means or to render him or her the necessary assistance for holding such inquiry;*
- e) *refuse or fail, when required thereto by the investigating officer, to attend an inquiry; or*
- f) *intentionally insult an investigating officer or intentionally interrupt the proceedings thereat."*

13. Amends section 54 of the Minerals Act 50 of 1991 by substituting subsection (1).

Section 54 of the principal Act is hereby amended by the substitution for subsection (1) of the following subsection:

- " 1) The holder of or applicant for any prospecting permit or mining authorization [or the owner of a works] shall, at least 14 days before he or she commences with any operations under any such a permit or authorization [or at a works] or intends to cease such operations temporarily or permanently, notify the [regional director] Director: Mineral Development concerned and the Chief Inspector of Mines in writing of any such intended commencement or cessation, and provide particulars in connection with the location, nature and extent of such operations.".

14. Amends section 60 of the Minerals Act 50 of 1991, as follows: paragraph (a) substitutes subsection (1); and paragraph (b) substitutes subsection (2).

Section 60 of the principal Act is hereby amended

- a) by the substitution for subsection (1) of the following subsection:

- " 1) Any person who contravenes or fails to comply with—

- a) any provision of—
      - i). section 5(2), 8(1), [31(1), (3) or (4), 37(a)] 38(1), 39(1), 40, 41(2), 42(5), 52 or 54;
      - ii). section 7(1) [31(5), 33(1) or 34(1)];
      - iii). section 19(1) or (2), [29(4)(b), 30(b), (c), (d), (e) or (f)] 38(2)(a), 53C(4)(b), 53D(b), (c), (d), (e) or (f) [58] or 59;
      - iv). [section 35(1) or 36]
      - v). [section 32(1) or (2) or 34(3)]
      - vi). [section 37(b)]

- vii). [section 29(4)(c)] 53C(4)(c); or
  - viii). [section 30(a)] 53D(a); or
  - b) any provision of—
    - i). any direction, notice, suspension, order, instruction or condition issued, given or determined under section 22(1), 23(1), [27(1) or (5), 33(2), 34(2) or] 38(2)(b) or 53A(1);
    - ii). any request referred to in section 51(3); or
    - iii). any notice issued under section 25(1), shall be guilty of an offence."; and
  - b) by the substitution for subsection 2 of the following subsection:
- " 2) Any person who contravenes or fails to comply with a provision of this Act, a regulation or any condition, notice, order, instruction, prohibition, authorization, permission, consent, exemption, certificate or document determined, given, issued, promulgated or granted by or under this Act by the Director-General, [**the Government Mining Engineer, a regional director, a regional mining engineer**] a Director: Mineral Development or any other officer in the service of the Department duly authorized thereto ex officio or by the Director-General shall, if any such contravention or failure is not declared an offence elsewhere, be guilty of an offence.".

15. Amends section 61 (1) of the Minerals Act 50 of 1991 by deleting paragraphs (d), (e) and (f).
- Section 61 of the principal Act is hereby amended by the deletion of paragraphs (d), (e) and (f) of subsection (1).
16. Amends section 63 of the Minerals Act 50 of 1991, as follows: paragraph (a) deletes subsection (1) (a), (b), (h) (iv) and (v), (i), (j), (k), (l), (n), (u), (v), (w) and (x); paragraph (b) substitutes subsection (1) (m); paragraph (c) substitutes subsection (2); and paragraph (d) deletes subsection (3).
- Section 63 of the principal Act is hereby amended—
- a) by the deletion of paragraphs (a), (b), (h)(iv) and (v), (i), (j), (k), (l), (n), (u), (v), (w) and (x) of subsection (1);
  - b) by the substitution for paragraph (m) of subsection (1) of the following paragraph:
    - " m) the manner in which the presence of witnesses at inquiries held in terms of section [28(1), (2) or (5)] 53B(1) or (4) shall be obtained and procedures to be followed at such inquiries;"
  - c) by the substitution for subsection (2) of the following subsection:

" 2) *No regulation relating to State revenue or expenditure [or to any health matter] shall be made by the Minister except with the concurrence of the Minister of Finance [or the Minister of State Expenditure or after consultation with the Minister for National Health and Welfare, respectively]"*; and

d) by the deletion of subsection (3).

17. Amends the Minerals Act 50 of 1991 by substituting the expression 'Director: Mineral Development' for the expression 'regional director', wherever it occurs in the Act.

*The principal Act is hereby amended by the substitution for the expression "regional director", wherever it occurs, in the Act, of the expression "Director: Mineral Development".*

18. Substitutes the long title of the Minerals Act 50 of 1991.

*The following long title is hereby substituted for the long title of the principal Act:*

*"To regulate the prospecting for and the optimal exploitation, processing and utilization of minerals; [to provide for the safety and health of persons concerned in mines and works] to regulate the orderly utilization and the rehabilitation of the surface of land during and after prospecting and mining operations; and to provide for matters connected therewith."*.

## B: REFERENCE TO GOVERNMENT MINING ENGINEER IN CERTAIN ACTS

### Substitution for Government Mining Engineer

The following Acts are hereby amended by the substitution for the expression 'Government Mining Engineer', wherever it occurs, of the expression 'Chief Inspector of Mines as contemplated in the Mine Health and Safety Act, 1996,':

Advertising on Roads and Ribbon Development Act, 1940 (Act 21 of 1940)

Rand Water Board Statutes (Private) Act, 1950 (Act 17 of 1950)

Mines and Works Act, 1956 (Act 27 of 1956)

Atmospheric Pollution Act, 1965 (Act 45 of 1965)

National Roads Act, 1971 (Act 54 of 1971)

Occupational Diseases in Mines and Works Act, 1973 (Act 78 of 1973)

National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977).

## SCHEDULE 4

### TRANSITIONAL PROVISIONS

[Schedule 4 amended by s. 46 of Act 72 of 1997 and by s. 32 of Act 74 of 2008.]

- (1) Any *health and safety standard* which, immediately prior to the commencement of *this Act*, was incorporated under the provisions of the *Mineral and Petroleum Resources Development Act* or the regulations made under that Act is deemed to be a *health and safety standard* incorporated under this item.
- (2) A certificate of fitness issued under the provisions of the Occupational Diseases in Mines and Works Act, 1973 (Act 78 of 1973), which was valid immediately before the commencement of *this Act* shall be deemed to be sufficient proof that the *employee* is fit to perform work until the certificate is cancelled or expires.
- (3) A declaration in respect of any work which has been declared under the Occupational Diseases in Mines and Works Act, 1973 (Act 78 of 1973), to be *risk work at controlled mines* is deemed to be a declaration made under section 76 (1) of *this Act* and remains in force until the declaration is withdrawn or superseded under *this Act*.
- (4) Any regulation made or deemed to be made under the *Mineral and Petroleum Resources Development Act* that relates to *health and safety* issues that can be regulated under *this Act*, may be amended under *this Act* and remains in force until repealed under *this Act*.

[Item 4 substituted by s. 46 of Act 72 of 1997.]

- (5) To the extent that it grants exemptions from the operation of a provision similar to a provision of this Act, an exemption is deemed to have been granted under section 79 if-
  - (a) it was granted under the provisions of the *Mineral and Petroleum Resources Development Act*; and
  - (b) it is still in force when *this Act* commences.
- (6) Section 85 does not apply to an *employee* employed at any mine immediately before the commencement of that section.
- (7) The Mine Health and Safety Inspectorate continues to exist as a juristic person and the *Chief Inspector of Mines* is its accounting authority.

[Item 7 added by s. 32 of Act 74 of 2008.]

## SCHEDULE 5

### SUSPENSION AND VARIATION OF APPLICATION OF OCCUPATIONAL DISEASES IN MINES AND WORKS ACT, 1973 (ACT 78 OF 1973)

[Schedule 5 added by GN R848 in GG 18078 of 21 June 1997.]

#### A: Suspension of Application of Act No. 78 of 1973

The application of the following sections of the Occupational Diseases in Mines and Works Act, 1973 (in this Schedule referred to as the 1973 Act) is hereby suspended:

- (a) Section 4 (2) (b).
- (b) Section 15.
- (c) Section 16 (1) (b) and (c).
- (d) Section 23.
- (e) Section 24.
- (f) Section 25.
- (g) Section 26.
- (h) Section 27 (2), (3), (4) and (5).
- (i) Section 28.
- (j) Section 29.
- (k) Section 30.
- (l) Section 37 (2) (a).
- (m) Section 121 (1) (b), (h) and (i).
- (n) Section 124 (3) (g) and (h).
- (o) Section 125.
- (p) Section 126 (1), (2) (a) and (b) and (3) (a) and (b) (i).

#### B: Variation of Application of Act No. 78 of 1973

- (1) The application of the following sections of the 1973 Act is hereby limited to medical examinations for the purpose of determining benefits:
  - (a) Section 4 (1) and (2) (a).
  - (b) Section 5.
  - (c) Section 31 (1).
  - (d) Section 36, subject to item 3 (b).
  - (e) Section 37 (1), (2) (b) and (3).
- (2) The application of section 27 (1) of the 1973 Act is hereby limited to instances where the director receives a communication as contemplated in section 33 (1).
- (3) The application of the following sections of the 1973 Act is hereby limited to persons employed at mines or works:
  - (a) Section 31 (1).
  - (b) Section 36 (1) (a).

## SCHEDULE 6

### CONSTITUTION OF THE MINE HEALTH AND SAFETY COUNCIL

[Schedule 6 added by GN R1317 in GG 18352 of 10 October 1997 and amended by GN R906 in GG 23585 of 2 July 2002 (as corrected by GN R1575 in GG 24168 of 13 December 2002).]

[An italicised word or phrase is defined in section 102 of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996), (*this Act*) and an italicised word or phrase in bold is defined in item 24 of this Constitution. In this Constitution all references to sections are references to sections in *this Act* unless otherwise indicated.]

#### 1. Establishment of Council and committees

- (1) The *Council* and the *committees* of the *Council*, the Mining Regulation Advisory Committee, the Mining Occupational Health Advisory Committee and the Safety in Mines Research Advisory Committee are established by section 41 (1) and (2) of *this Act*.
- (2) The *Council* may establish *ad hoc* committees and subcommittees for such periods as the *Council* may consider necessary, to achieve the object or perform the functions of the *Council*.
- (3) Every committee or *ad hoc* committee may, subject to such conditions as the *Council* may determine, establish subcommittees, for such periods as the committee may consider necessary, to perform any function of that committee.

#### 2. Legal status

- (1) The *Council* is a body corporate.
- (2) All actions, suits or other proceedings at law, by or against any *committee* must be brought by or against the *Council*.
- (3) The *Council* may authorise any person or persons to act on behalf of the *Council* and to sign all such documents and to take all such steps as may be necessary in connection with any proceedings at law brought by or against the *Council*.

#### 3. Object of Council

The object of the *Council* is to advise the Minister on *health* and *safety* at *mines*.

(Section 41(1) prescribes the object of the Council.)

#### 4. Functions of Council

The *Council* must-

- (a) advise the *Minister* on *health and safety* at *mines* including, but not limited to, any legislation on mine rehabilitation in so far as it concerns *health and safety*;
- (b) co-ordinate the activities of the **committees**;
- (c) consider the reports of the **committees**;
- (d) liaise with the Mining Qualifications Authority on matters relating to *health and safety*;
- (e) liaise with any other statutory bodies concerned with matters relating to *health and safety*;
- (f) promote a culture of *health and safety* in the mining industry;
- (g) at least once every two years arrange and co-ordinate a tripartite summit to review the state of *health and safety* at *mines*;
- (h) for each year consider an overall programme for relevant *health and safety* for approval as *prescribed* and deliver a copy to the Minister of Finance for consideration; and
- (i) perform every duty imposed upon the *Council* in terms of this Act.

(Sections 43(a) to (f) determine the duties of the Council.)

#### 5. Functions of committees

- (1) The Mining Regulation Advisory Committee must advise the *Council* on-
  - (a) proposed changes to legislation to improve *health or safety* at *mines*;
  - (b) proposals for changes to legislation made by any committee;
  - (c) guidelines for codes of practice; and
  - (d) *standards* approved by the South African Bureau of Standards.

(Sections 44(1)(a) to (d) determine the duties of MRAC.)

- (2) The Mining Occupational Health Advisory Committee must advise the *Council* on-
  - (a) policy relating to *health*;
  - (b) *standards*, systems and procedures for assessing, avoiding, eliminating, controlling and minimising *health risks*;
  - (c) *regulations* on any aspect of *health*;
  - (d) *health research*; and
  - (e) collecting, processing and distributing *health* data in the mining industry.

(Sections 44(2)(a) to (e) determine the duties of MOHAC.)

- (3) The Safety in Mines Research Advisory Committee must advise the *Council* on-
  - (a) criteria for determining the funding of *health and safety* research;

(Section 98(l)(zJ) empowers the Minister to make regulations for the payment of levies for funding research and surveys and for the promotion of health and safety at mines.)

- (b) the need for research into *health and safety at mines*;
- (c) research projects, including priorities of projects, cost, assessment, ratification and execution;
- (d) communication and publication of research results; and
- (e) the management of the cost of the overall programme.

(Sections 44(3)(a) to (e) and 44(4)(a) to (d) determine the duties of SIMRAC.)

- (4) The Safety in Mines Research Advisory Committee must prepare the programme for relevant *health and safety* research for the *Council* to consider. The programme must include-
  - (a) a review of *health and safety* performance in the different mining sectors;
  - (b) an evaluation of the research proposals made by the *Council* or any **committee**;
  - (c) the focus of *health and safety* research and priorities for the different sectors of mining; and
  - (d) an estimate of the cost of the programme.

(Sections 44(3)(a) to (e) and 44(4)(a) to (d) determine the duties of SIMRAC.)

(The Council considers the overall programme in terms of item 4(h).)

## **6. Functions of other committees**

**Other committees** must perform the functions delegated or assigned to them in terms of item 7.

## **7. Delegation and assignment of functions**

- (1) The *Council* may delegate or assign any of the functions of the *Council* by or under this Act to any **committee**.
- (2) Permanent and *ad hoc* committees may delegate or assign any of their functions to any of their subcommittees.
- (3) A delegation or assignment under subitem (1) or (2)-
  - (a) must be in writing;
  - (b) is subject to such conditions and restrictions as determined by the *Council*, a permanent or an *ad hoc* committee, as the case may be; and
  - (c) does not prevent the performance of that function by the *Council*, a permanent or an *ad hoc* committee, as the case may be.

(Sections 42(4) and (5) enable the Council to delegate any of its powers or assign any of its duties by or under this Act to committees.)

## 8. Composition of Council and committees

- (1) The *Council* consists of-
  - (a) five members representing *employers* in the mining industry;
  - (b) five members representing *employees* in the mining industry;
  - (c) four members representing departments of State; and
  - (d) the *Chief Inspector of Mines*, who must chair the *Council*.
  
- (2) Every *committee* consists of-
  - (a) five members representing *employers* in the mining industry;
  - (b) five members representing *employees* in the mining industry;
  - (c) four members representing departments of State; and
  - (d) an *officer* of the Mine Health and Safety Inspectorate who must chair the committee.
  
- (3) Every **other committee** consists of the number of members determined by the relevant establishing authority.
  
- (4) The *parties* are entitled to equal representation on *other committees*.

## 9. Nomination and appointment of members

- (1) Members of the *Council* and *committees* are nominated and appointed in accordance with the *regulations* and members of any **other committee** are nominated and appointed in accordance with this item.
  
- (2) Every **party** on the relevant **establishing authority** may nominate persons as members representing their **party** on any **other committee**.
  
- (3) The relevant **establishing authority**-
  - (a) must appoint the members; and
  - (b) may appoint one of the members as chairperson.
  
- (4) If the relevant **establishing authority** does not appoint a chairperson, the **members** of the committee may appoint a chairperson from among their number.

- (5) Members representing *employees* or *employers* on any **other committee** may hold office for such period as the relevant **establishing authority** may determine, which period may not exceed three years. A member whose period of office expires, may be reappointed.

(Regulation 18.5 published by GNR 93 in the Gazette of 15 January 1997 determines the term of office of members of the Council and its committees.)

- (6) If the office of a member of any **other committee** is vacated before the end of the period of office of such member, a person to replace such member must, subject to the provisions of this Constitution-
- be nominated by the **party** that was represented by the member; and
  - be appointed by the relevant **establishing authority** for a period not exceeding the balance of the period of office of the member in whose place the person is appointed.

(Mine Health and Safety Regulation 18.6 deals with the filling of casual vacancies of the Council and committees.)

- (7) The appointment of any member of any **other committee** is subject to any condition that the relevant **establishing authority** determine.
- (8) The chairperson of the relevant **establishing authority** must in writing notify the members of their appointment.
- (9) If a member appointed in terms of this item does not accept such appointment, a person to replace such person must be appointed in accordance with this item.
- (10) Every **party** must appoint an **alternate** for each of its members on the *Council*, a committee or *ad hoc* committee and must notify the chairperson of the *Council* or the relevant committee or *ad hoc* committee, as the case may be, of such appointment.
- (11) The relevant **establishing authority**-
- may appoint **alternates** for members of subcommittees; and
  - must notify-
    - the **alternates** of their appointment; and
    - the members of their respective **alternates**.

## 10. Vacation of office

- (1) A **member** vacates office-
  - (a) on expiry of the **member's** period of office;
  - (b) if such **member**-
    - (i). is absent from two consecutive meetings of the *Council* or **committee** for which such **member** is appointed without notifying the chairperson before the meeting that the **member** will be absent;
    - (ii). resigns as a **member**; or
    - (iii). is required to vacate office by the **party** or the organisation which that **member** represents;
  - (c) if such **member** was nominated by an organisation and that organisation no longer meets the criteria allowing it to nominate **members**; or
  - (d) if the *Council* or **committee** on which the **member** serves, is abolished.
  - (2) If a member vacates office, the **alternate** appointed for such member ceases to hold office as alternate.

## 11. Functions of chairperson

- (1) Every **chairperson** must with regard to the *Council* or **committee** which the person chairs-
  - (a) allow each **party** to appoint from among its members a person to act as convenor of such **party** for communication purposes. If a **party** does not appoint such convenor, the **chairperson** may appoint any member of that **party** as convenor of the **party**;
  - (b) cause meetings to be convened; and
  - (c) ensure the orderly conduct of meetings and that all resolutions are recorded.
- (2) If in the opinion of the **chairperson** the behaviour of any **member** is disruptive to the orderly conduct of the meeting, the **chairperson** may order that **member** to leave a meeting.
- (3) If the chairperson of the *Council* or a **committee** is unable to attend a meeting, the chairperson may designate another **officer** of the Mine Health and Safety Inspectorate to chair the meeting.

(If the chairperson of any other committee is unable to attend a meeting, a member of that committee may be elected in terms of item 16(3) to chair the meeting.)

## 12. Appointment and functions of secretary

- (1) The *Chief Inspector of Mines* must appoint a secretary for-
  - (a) the *Council* and every permanent and *ad hoc* committee; and

- (b) any subcommittee if the **establishing authority** so requires.

[Sub-s. (1) amended by GN R906 in GG 23585 of 2 July 2002.]

- (2) If a secretary is not appointed for a subcommittee, the **members** of that committee must keep a record of and report to the relevant **establishing authority** on their activities.
- (3) A secretary must, with regard to the *Council* or **committee** for which the secretary is appointed-
- prepare the agenda for every meeting;
  - prepare the minutes of every meeting;
  - record every resolution of such meeting and if so requested by a **member**, the views of that **member**;
  - keep general records, records of **members**, minutes, documents and files of the *Council* or such **committee**; and
  - serve every member with-
    - a convening notice and the agenda of a meeting at least five **clear days** before the meeting or two **clear days** before an urgent meeting;
    - any reports or documentation to be considered at a meeting, a reasonable period before the meeting; and
    - the minutes of every meeting.

### 13. Rights and obligations of members

- (1) Any **member** who is unable to attend a meeting of the *Council* or any **committee**-
- may designate any **alternate** of that **member's party** on the *Council* or that committee as the case may be, to represent the **member** at the meeting; and
  - must before the meeting give notice of it to the **chairperson**.
- (2) An **alternate** designated under subitem (1) has the rights and obligations of the member whom that **alternate** represents.
- (3) Every **member** has the right to-
- be heard on any matter considered at the meeting;
  - take part in the resolution of any matter before the meeting; and
  - have their views, on any matter considered at the meeting, recorded in the minutes of the meeting and in any report or recommendation of the meeting.

(Section 42(6) entitles members to have their views reflected in any report of the Council or committee.)

#### 14. Meetings

- (1) The *Council* must meet at such intervals as required for the proper performance of the functions of the *Council*, but at least once every six months.
- (2) Every permanent and *ad hoc* committee must meet at such intervals as required for the proper performance of the functions of the committee, but at least once every three months.
- (3) Subcommittees must meet at such intervals as determined by their activities and the dates for the completion of their tasks.
- (4) An urgent meeting of the *Council* or any **committee** may be called by the **chairperson** at the written request of at least two **members** or when the **chairperson** deems it necessary.
- (5) The *Council* may direct any **committee** to call an urgent meeting to resolve any matter determined by the *Council*.
- (6) A permanent or *ad hoc* committee may direct any of its subcommittees to call an urgent meeting to resolve any matter determined by such committee.

#### 15. Quorum

- (1) Eight **members** form a quorum for any meeting of the *Council* or a **committee** provided that at least two **members** of each **party** are present.
- (2) The quorum for any **other committee** must be determined by the relevant **establishing authority**.
- (3) Despite subitems (1) and (2), if the convenors of the **parties** in the *Council* or any **committee** so agree, a smaller number may constitute a quorum for an urgent meeting of the *Council* or that **committee**, as the case may be.
- (4) If a quorum is not present at a meeting, the meeting must be postponed to a date, time and place determined by the **chairperson**. The **members** present at the subsequent meeting form a quorum for that meeting.

#### 16. Procedures at meetings

- (1) Items may be added to the agenda of any meeting if the meeting so decides.

- (2) Any **member** who has a direct or personal financial interest in any matter before the meeting must, before the matter is discussed by the meeting, declare such interest to the meeting and the **chairperson** must determine whether such **member** may participate in the consideration of that matter.
- (3) If the designated **chairperson** is not present at a meeting the **members** may elect from among their number a **chairperson** for that meeting.

## 17. Resolution of meeting

- (1) The *Council* or any **committee** must endeavour to reach consensus on any matter that requires resolution.
- (2) If **consensus** cannot be reached on any matter after sincere endeavours to do so, a decision of the majority of **members** present and voting at a meeting constitutes the resolution on that matter by the *Council* or any **committee**, as the case may be.
- (3) Any report or advice of the *Council* or any **committee** which reflects a resolution that was not reached by **consensus**, must reflect-
  - (a) the different views of the **members** on the matter so resolved; and
  - (b) which **members** supported each view.
- (4) No resolution nor any act authorised by the *Council* or any **committee** is invalid merely because of a vacancy on the *Council* or that **committee** or because any person not entitled to sit as a **member** sat at such meeting at the time the resolution was taken or the act was authorised if a quorum was constituted by the rest of the **members** present at the meeting and entitled to sit as **members** at the meeting.
- (5) Despite subitems (1) to (3), if the **members** present and voting at a meeting reach consensus on the matter, the *Council* may resolve that any specific resolution of the *Council* may only be amended or revoked by a special majority of, or the consensus of the *Council*.

[Subitem (5) added by GN R906 in GG 23585 of 2 July 2002 (as corrected by GN R1575 in GG 24168 of 13 December 2002).]

## 18. Funds of Council

- (1) The funds of the *Council* consist of-
  - (a) moneys appropriated by Parliament to perform the functions of the *Council*;
  - (b) other moneys received in terms of *this Act*;

- (c) revenue obtained from investments;
- (d) fees or royalties obtained from intellectual property of the *Council*;
- (e) donations or contributions received from any person, body, government or administration; and
- (f) any other money received from any other source.

(Section 42(7) empowers the Minister to provide funds for the administration of the Council and its committees from public funds.)

- (2) Moneys appropriated by Parliament must be used for-
  - (a) the payment to **members** who are not in the full-time service of the State of such remuneration and allowances as the *Minister* may determine with the agreement of the Minister of Finance; and
  - (b) the payment for administrative functions of the Council and **committees**.

(Section 42(7) requires the agreement of the Minister of Finance for the provision of funds for the administration of the Council and its committees from public funds.)

- (3) Moneys referred to in subitem (1) (b), (c), (d) or (f) may be-
  - (a) used as contemplated in *this Act*;
  - (b) invested with any bank registered as such under the Banks Act, 1990 (Act 94 of 1990), or invested in such other manner as may be determined by the *Minister* with the agreement of the Minister of Finance; and
  - (c) used to register or utilise any intellectual property of the *Council*.
- (4) Moneys referred to in subitem (1) (e) must be utilised in accordance with the conditions, if any, imposed by the donor or contributor of such moneys.
- (5) The chairperson of the *Council* must for each financial year submit a statement of estimated income and expenditure during such financial year to the *Minister* who, with the agreement of the Minister of Finance, must approve the budget for-
  - (a) the first financial year, before the first meeting of the *Council*; and
  - (b) every other financial year, before the beginning of such financial year.

## 19. Accountability

- (1) The chairperson of the *Council* is the accounting officer of the *Council*.
- (2) The accounting officer is responsible for all moneys received and payments made by the *Council*.
- (3) The financial year of the *Council* ends on 31 March in each year.

- (4) The accounting officer must cause records to be kept in accordance with the Generally Accepted Accounting Principles that are necessary to represent fairly the state of affairs and business of the *Council* and to explain the transactions and financial position of the *Council*.
- (5) Annual financial statements must be prepared in respect of every financial year. The statements must consist of-
  - (a) a balance sheet dealing with the state of affairs of the *Council*;
  - (b) a return of income received and expenses incurred by the *Council*; and
  - (c) a statement of cash flow information.
- (6) The books of account, statements of account and annual financial statements of the *Council* must be audited annually by the Auditor-General. The Auditor General must compile a report on the audit and submit a copy of it to the *Minister* and the chairperson of the *Council*.
- (7) The secretary of the *Council* must supply each member of the *Council* with a copy of the report of the Auditor-General.
- (8) As soon as practicable after the report of the Auditor-General has been submitted to the *Minister* in terms of subitem (6), the *Minister* must table it in Parliament.

## **20. Administrative, secretarial and other services**

- (1) The *Council* may employ employees to provide such administrative, secretarial or other services to the *Council* and its committees as the *Council* may determine.
- (2) Despite subitem (1), the *Council*, with the approval of the *Minister*, may contract any person, or arrange for officers of the Mine Health and Safety Inspectorate, to provide such administrative, secretarial and other services to the *Council* and committees as the *Council* may determine.

[Item 20 substituted by GN R906 in GG 23585 of 2 July 2002.]

## **21. Abolition of Council or committee**

- (1) The *Council* and the committees may be abolished by an Act of Parliament.
- (2) The *Council* may at any time abolish any other committee.
- (3) A permanent or *ad hoc* committee may at any time abolish any subcommittee established by that committee.

(See item 1 for the establishment of the Council and committees.)

## **22. Limitation of liability**

- (1) A *member* or an employee of the *Council* does not incur any civil liability only because of doing or failing to do something which such *member* may do or is required to do in terms of *this Act* or this Constitution.

[Subitem (1) substituted by GN R906 in GG 23585 of 2 July 2002.]

- (2) The *Council* does not incur any civil liability only because a *member*, or an employee of the *Council*, or any person contracted to perform a function of the *Council* or a *committee*, or an officer of the Mine Health and Safety Inspectorate assigned to perform such functions, took an action or failed to take an action under or in terms of *this Act* or this Constitution, and in taking or failing to take that action acted without negligence and in good faith.

[Subitem (2) substituted by GN R906 in GG 23585 of 2 July 2002 (as corrected by GN R1575 in GG 24168 of 13 December 2002).]

## **23. Amendment of constitution**

- (1)
  - (a) If the *Minister* wants to amend the constitution, the *Minister* must furnish a proposal containing such amendments to the chairperson of the Council, who must convene a meeting to consider the proposal.
  - (b) At such meeting the *Council* must consider the proposal and resolve either to-
    - (i). support the proposal as it is;
    - (ii). support the proposal with certain amendments; or
    - (iii). oppose the proposal.
  - (c) The *Council* must submit its resolution to the *Minister*.
  - (d) If the *Council* resolves to support the proposal with certain amendments or to oppose the proposal, the motivation for such resolution and the amendments, if any, must be included in the submission to the *Minister*.

(2)

- (a) If the *Council* wants the constitution to be amended, the *Council* must submit a proposal regarding such amendment to the *Minister*.
- (b) Such proposal by the *Council* is deemed to be consultation by the *Minister* with the *Council* as contemplated in section 97 (1).
- (c) If the *Minister* is not satisfied with the amendments or the motivation for the amendments, the *Minister* may refer the proposal back to the *Council* for further consideration.

*(Section 97(1) read with 97(3) of this Act authorises the Minister to add to, change or replace this Constitution, after consultation with the Council, by publication in the Gazette.)*

## 24. Definitions

Unless the context otherwise indicates-

**'alternate'** means any person appointed as an alternate to a member under item 9 (10);

**'chairperson'** means any person who chairs any meeting of the *Council* or a committee;

**'clear day'** means any day of the week except Sundays and public holidays;

**'committee'** means any *committee* or ***other committee***;

**'consensus'** means unanimous agreement;

**'establishing authority'** means-

- (i). in the case of the *Council* and a committee, Parliament by legislation;
- (ii). in the case of an *ad hoc* committee, the *Council*; and
- (iii). in the case of a subcommittee, the *Council*, or any committee or *ad hoc* committee that establishes the subcommittee;

**'member'** means any member of the *Council* or any ***committee*** and includes any ***alternate*** designated by a member to represent that member at a meeting of the *Council* or ***committee***;

**'other committee'** means-

- (a) an *ad hoc* committee established for a limited term to perform any function of the *Council* which is not a function of any committee; and
- (b) a subcommittee established by-
  - (i). the *Council* to perform any function of the *Council* which is not assigned by or under *this Act* to a committee; and
  - (ii). a permanent or an *ad hoc* committee to perform any function of that committee; and

'party' means *employers*, employees or the State, as the case may be.

## SCHEDULE 7

### CONSTITUTION OF MINING QUALIFICATIONS AUTHORITY

[Schedule 7 added by GN R612 in GG 18854 of 24 April 1998.]

#### ARRANGEMENT OF CONSTITUTION

1. Establishment of Authority and committees
2. Legal status
3. Objects of Authority
4. Functions of Authority
5. Functions of committees
6. Functions of other committees
7. Composition of Authority and committees
8. Nomination and appointment of members of committees
9. Vacation of office
10. Appointment and functions of the executive officer
11. Delegation and assignment of functions
12. Functions of the chairperson
13. Appointment and functions of secretary
14. Rights and obligations of members
15. Meetings
16. Quorum
17. Procedures at meetings
18. Resolution of meeting
19. Funds of Authority
20. Accounting
21. Abolition of Authority and committees
22. Limitation of liability
23. Amendments to constitution
24. Interpretation

## CONSTITUTION OF THE MINING QUALIFICATIONS AUTHORITY (MQA)

**To provide for the constitution of the Mining Qualifications Authority; for the promotion of the objectives of the National Qualifications Framework in the mining industry; for advising the Minister on matters relating to education and training standards and qualifications in the mining industry; and for matters connected therewith.**

[In this Constitution all references to sections are references to sections in *this Act*, unless otherwise indicated.]

### 1. Establishment of Authority and committees

[An italicised word or phrase is defined in section 102 of the Mine Health and Safety Act, 1996 (Act 29 of 1996) (*this Act*) and an italicised word or phrase in bold is defined in item 24 of this Constitution.]

- (1) The **Authority** is established by section 41 (3).
- (2) The **Authority** may establish committees, *ad hoc* and subcommittees for such periods as the **Authority** may consider necessary, to achieve the objects or perform the functions of the Authority.
- (3) Every permanent or *ad hoc* committee may, subject to such conditions as the **Authority** may determine, subcommittees for such periods as the committee may consider necessary to achieve the objects or perform the functions of that committee.

(Section 46(2) empowers the Authority to appoint permanent and *ad hoc* committees, and subcommittees, for any period and on any conditions. 1 (3)-*Ad hoc* and subcommittees are distinguished in the definition of "other committees".)

- (4) In the case of committees, the **chairperson** of the **Authority** must inform the Minister of such establishment.

### 2. Legal status

- (1) The **Authority** is a body corporate.
- (2) All actions, suits or other proceedings at law, by or against any **committee** must be brought by or against the **Authority**.

- (3) The **Authority** may authorise any person or persons to act on behalf of the **Authority** and to sign all such documents and to take all such steps as may be necessary in connection with any proceedings at law brought by or against the **Authority**.

### 3. Objects of Authority

- (1) The objects of the **Authority** are to-
- (a) advise the *Minister* on-
    - (i). *qualifications* and learning achievements in the mining industry to improve *health and safety standards* through proper training and education;
    - (ii). standards and competency setting, assessment, examinations, quality assurance and accreditation in the mining industry; and
    - (iii). proposals for the registration of education and training standards and qualifications in the mining industry on the **National Qualifications Framework** referred to in the South African Qualifications Authority Act, 1995 (Act 58 of 1995); and

(Section 41(3) prescribes the objects of the Authority.)

- (b) promote the objectives of the **National Qualifications Framework** in the mining industry, which are to-
  - (i). create an integrated national framework for learning achievements;
  - (ii). facilitate access to, and mobility and progression within education, training and career paths;
  - (iii). enhance the quality of education and training;
  - (iv). accelerate the redress of past unfair discrimination in education, training and employment opportunities; and thereby
  - (v). contribute to the full personal development of each learner and the social and economic development of the nation at large.

(Section 2 of the SAQA Act determines the objectives of the National Qualifications Framework.)

- (2) In order to promote its objects the **Authority** must seek-
- (a) registration in terms of the **SAQA Act** as a body responsible for generating **education and training standards** and **qualifications** as contemplated in section 5 (1) (a) (ii) (aa) of that Act; and
  - (b) accreditation in terms of the **SAQA Act** as a body responsible for monitoring and auditing achievements as contemplated in section 5 (1) (a) (ii) (bb) of that Act;

#### 4. Functions of Authority

- (1) The **Authority** must-
  - (a) generate **education and training standards** and **qualifications** in the mining industry;
  - (b) propose **education and training standards** and **qualifications** to bodies registered with the South African Qualifications Authority and responsible for developing **education and training standards**;
  - (c) monitor and audit achievements in terms of those standards and qualifications;
  - (d) accredit providers, assessors and moderators of education and training in the mining industry;
  - (e) analyse and prioritise education and training needs in the mining industry and recommend on the provision of such education and training;
  - (f) promote a culture of **learning** in the mining industry;
  - (g) assure the quality of education and training in the mining industry, without itself being a provider of education and training;
  - (h) facilitate strategic human resources development planning in the mining industry;
  - (i) liaise with the South African Qualifications Authority, or other bodies, persons or institutions concerned with or directly affected by education and training in the mining industry;
  - (j) keep a record of learning for people in the mining industry;
  - (k) perform any other function required by the South African Qualifications Authority in terms of the **Authority's** registration or accreditation; and
  - (l) perform any, other function that must be performed by the **Authority** in terms of *this Act* or any other applicable law.
- (2) The **Authority** may perform any other function that may be performed by the **Authority** in terms of *this Act* or any other applicable law.

(Sections 46(1)(c), (d) and (e) determine the advisory functions of the Authority. Section 46(5) requires that, in performing its functions, the Authority must comply with the policies and criteria formulated by the South African Qualifications Authority in terms of section 5(1)(a)(ii) of the SAQA Act.)

#### 5. Functions of committees

- Every committee, at the relevant levels of the **National Qualifications Framework** in the mining industry, must-
- (a) make recommendations to the **Authority** on-
    - (i). the generation of **education and training standards** and **qualifications**;

- (ii). the assessment of ***education and training standards*** and ***qualifications***; and
- (iii). the accreditation and moderation of education and training providers and assessors;
- (b) undertake activities necessary for the development and implementation of the ***National Qualifications Framework***;
- (c) co-ordinate the activities and consider the reports of its subcommittees; and
- (d) perform such other functions delegated or assigned to it by the ***Authority***.

## **6. Functions of other committees**

***Other committees*** must perform the functions assigned or delegated to them in terms of item 11.

## **7. Composition of Authority and committees**

- (1) The ***Authority*** consists of-

- (a) five members representing *employers* in the mining industry;
- (b) five members representing employees in the mining industry;
- (c) four members representing departments of State; and
- (d) the Chief Inspector of Mines who must chair the Authority.

(Section 45(1) prescribes the membership of the Authority.)

- (2) Every committee of the ***Authority*** consists of the following members:
  - (a) five members representing *employers* in the mining industry;
  - (b) five members representing employees in the mining industry;
  - (c) five members representing departments of State; and
  - (d) an employee of the ***Authority*** who must chair the committee.
- (3) Every ***other committee*** consists of the number of members determined by the relevant ***establishing authority***.
- (4) The ***parties*** are entitled to equal representation on ***other committees***.

## **8. Nomination and appointment of members of committees**

- (1) ***Members*** of the ***Authority*** are nominated and appointed in accordance with the regulations and members of any committee are nominated and appointed in accordance with this item.

(Regulations 18.1 to 18.7 published by GN R.93 in the Gazette of 15 January 1997.)

- (2) **Members** of the relevant **establishing authority** may nominate persons as members representing their **party** on **any committee**.
- (3) The relevant **establishing authority**-
  - (a) must appoint the members; and
  - (b) may appoint one of the members as chairperson.
- (4) If the relevant **establishing authority** does not appoint a chairperson, the **members** of the **committee** may appoint the chairperson from among their number.
- (5) Members representing employees or **employers** on any **committee** may hold office for such period as the relevant **establishing authority** may determine, which period may not exceed three years. A member whose period of office expires, may be reappointed.

(Regulation 18.5 published by GN R.93 in the Gazette of 15 January 1997 determines the term of office of members of the Authority and its committees.)

- (6) If the office of a member of any **committee** is vacated before the end of the period of office of such member, a person to replace such member must, subject to the provisions of this Constitution-

(Mine Health and Safety Regulation 18.6 deals with the filling of casual vacancies of the Authority.)

- (a) be nominated by the **party** that was represented by the member; and
  - (b) be appointed by the relevant **establishing authority** for a period not exceeding the balance of the period of office of the member in whose place the person is appointed.
- (7) The appointment of any member of any **committee** is subject to any condition that the relevant **establishing authority** may determine.
  - (8) The chairperson of the relevant **establishing authority** must in writing notify the members of their appointment.
  - (9) If a member appointed in terms of this item does not accept such appointment, a person to replace such person must be appointed in accordance with this item.

(10) Every **party** must appoint an **alternate** for each of its members on the **Authority**, a committee or *ad hoc* committee and must notify the chairperson of the **Authority** or the relevant committee or ad hoc committee, as the case may be, of such appointment.

(11) The relevant **establishing authority**-

- (a) may appoint **alternates** for members of subcommittees; and
- (b) must notify-
  - (i). the **alternates** of their appointment; and
  - (ii). the members of their respective **alternates**.

## 9. Vacation of office

- (1) A **member** vacates office-
  - (a) on expiry of the **member's** period of office; or
  - (b) if such **member**-
    - (i). is absent from two consecutive meetings of the **Authority** or **committee** for which such member is appointed without notifying the **chairperson** before the meeting that the **member** will be absent;
    - (ii). resigns as a **member**; or
    - (iii). is required to vacate office by the **party** or the organisation which that **member** represents;
  - (c) if such **member** was nominated by an organisation and that organisation no longer meets the criteria allowing it to nominate **members**; or
  - (d) if the **Authority** or **committee** on which the **member** serves, is abolished.
- (2) If a **member** vacates office, the **alternate** appointed for such **member** ceases to hold office as alternate.

## 10. Appointment and functions of the executive officer

- (1) The **Minister**, after consulting the **Authority**, must appoint a person with experience and expertise in matters relating to functions of the **Authority** as **executive officer** of the **Authority**.
- (2) The **executive officer** must perform such functions as may be assigned to the **executive officer** by *this Act* or by the **Authority**.
- (3) The **executive officer** must attend all meetings of the **Authority**.

- (4) If the **executive officer** is absent or for any reason is unable to perform the functions of the **executive officer** or if there is a vacancy in the office of the executive officer, the chairperson of the **Authority** may designate an employee of the **Authority** to act as **executive officer** until the executive officer is able to resume the functions of **executive officer** or until an **executive officer** is appointed in terms of subitem (1).
- (5) The **Authority** may, subject to the provisions of item 19 (2) (b), appoint persons as employees of the **Authority** to assist in the performance of the functions of the **executive officer**.
- (6) The terms and conditions of service of persons appointed under subitem (5) are determined by the *Minister* after consulting the **Authority**.

## 11. Delegation and assignment of functions

- (1) The **Authority** may delegate any of its powers or assign any of its functions by or under this Act to any **committee** or the **executive officer**.
- (2) Any permanent or *ad hoc* committee may delegate or assign any of its functions to any of its subcommittees.
- (3) The **executive officer** may delegate any power or assign the performance of any function conferred or imposed upon the **executive officer** to any employee of the **Authority**.
- (4) A delegation or assignment under subitem (1), (2) or (3)-
  - (a) must be in writing;
  - (b) may be subject to such conditions and restrictions as determined by the **Authority**, a committee, or an *ad hoc* committee or the **executive officer**, as the case may be; and
  - (c) does not prevent the exercise of that power or performance of that function by the **Authority**, a committee or an *ad hoc* committee or the **executive officer**, as the case may be.

(Sections 46(3) and (4) enable the Authority to delegate any of its powers or assign any of its duties by or under this Act in accordance with the constitution contemplated in section 97(4).)

## 12. Functions of the chairperson

- (1) Every **chairperson** must, with regard to the **Authority** or **committee** which the person chairs-
  - (a) allow each **party** to appoint from among its members a person to act as convenor of such **party** for communication purposes. If a **party** does not appoint such convenor, the **chairperson** may appoint any member of that **party** as convenor of the **party**;
  - (b) cause meetings to be convened; and
  - (c) ensure the orderly conduct of meetings and that all resolutions are recorded.
- (2) A **chairperson** may order any **member** to leave a meeting if in the opinion of the **chairperson** the behaviour of such **member** is disruptive to the orderly conduct of the meeting.
- (3) If the **chairperson** of the **Authority** is unable to attend a meeting, the **chairperson** may designate another officer of the Mine Health and Safety Inspectorate, to chair the meeting.

(If the chairperson of any other committee is unable to attend a meeting, a member of that committee may be elected in terms of item 17(3).)

- (4) If the **chairperson** of a committee is unable to attend a meeting, the **executive officer** may designate another employee of the **Authority** to chair the meeting.

## 13. Appointment and functions of secretary

- (1) The **executive officer** must appoint a secretary for-
  - (a) the **Authority** and every committee and ad hoc committee; and
  - (b) any subcommittee if the **establishing authority** so requires.
- (2) If a secretary is not appointed for a subcommittee, the **members** of that committee must keep a record of and report to the relevant **establishing authority** on their activities.
- (3) A secretary must, with regard to the **Authority** or **committee** for which the secretary is appointed-
  - (a) prepare the agenda for every meeting;
  - (b) prepare the minutes of every meeting;
  - (c) record every resolution of such meeting and if so requested by a **member**, the views of that **member**;
  - (d) keep general records, records of **members**, minutes, documents and files of the **Authority**, or such **committee**; and
  - (e) serve every member with-

- (i). a convening notice and the agenda of a meeting at least five **clear days** before the meeting or two **clear days** before an urgent meeting;
- (ii). any reports or documentation to be considered at a meeting, a reasonable period before the meeting; and
- (iii). the minutes of every meeting.

## 14. Rights and obligations of members

- (1) Any **member** who is unable to attend a meeting of the **Authority** or any **committee**-
  - (a) may designate any **alternate** of that **member's party** on the **Authority** or that committee, as the case may be, to represent the **member** at the meeting; and
  - (b) must before the meeting give notice of it to the **chairperson**.
- (2) An **alternate** designated under subitem (1) (a), has the rights and obligations of the **member** whom that **alternate** represents.
- (3) Every **member** has the right to-
  - (a) be heard on any matter considered at the meeting;
  - (b) take part in the resolution of any matter before the meeting; and
  - (c) have their views, on any matter considered at the meeting, recorded in the minutes of the meeting and in any report or recommendation of the meeting.

## 15. Meetings

- (1) The **Authority** must meet at least once every three months.
- (2) Every committee and ad hoc committee must meet at least once every two months.
- (3) Subcommittees must meet at such intervals and frequency as determined by their activities and the dates for the completion of their tasks.
- (4) An urgent meeting of the **Authority** or any **committee** may be called by the **chairperson** at the written request of at least two **members** or when the **chairperson** deems it necessary.
- (5) The **Authority** may direct any **committee** to call an urgent meeting to resolve any matter determined by the **Authority**.

- (6) A permanent or *ad hoc* committee may direct any of its subcommittees to call an urgent meeting to resolve any matter determined by such committee.

## 16. Quorum

- (1) Eight **members** form a quorum for any meeting of the **Authority** or a committee provided that at least two **members** of each **party** are present.
- (2) The quorum for any **other committee** must be determined by the relevant **establishing authority**.
- (3) Despite subitems (1) and (2), if the convenors of the **parties** in the **Authority** or any **committee** so agree, a smaller number may constitute a quorum for an urgent meeting of the **Authority** or that **committee**, as the case may be.
- (4) If a quorum is not present at a meeting, the meeting must be postponed to a date, time and place determined by the **chairperson**. The **members** present at the subsequent meeting form a quorum for that meeting.

## 17. Procedures at meetings

- (1) Items may be added to the agenda of any meeting if the meeting so decides.
- (2) Any **member** who has a direct or personal financial interest in any matter before the meeting must, before the matter is discussed by the meeting, declare such interest to the meeting and the **chairperson** must determine whether such **member** may participate in the consideration of the matter.
- (3) If the designated **chairperson** is not present at a meeting the **members** may elect from among their number a **chairperson** for that meeting.

## 18. Resolution of meeting

- (1) The **Authority** or any **committee** must endeavour to reach **consensus** on any matter that requires resolution.
- (2) If **consensus** cannot be reached on any matter after sincere endeavours to do so, a decision of the majority of **members** present and voting at a meeting constitutes the resolution on that matter by the **Authority** or any **committee**, as the case may be.
- (3) Any report or advice of the **Authority** or any **committee** which reflects a resolution that was not reached by **consensus**, must reflect-

- (a) the different views of the **members** on the matter so resolved; and
  - (b) which **members** supported each view.
- (4) No resolution nor any act authorised by the **Authority** or any **committee** is invalid merely because of a vacancy on the **Authority** or that **committee** or because any person not entitled to sit as a **member** sat at such meeting at the time the resolution was taken or the act was authorised if a quorum was constituted by the rest of the **members** present at the meeting and entitled to sit as members at the meeting.
- (5) The chairperson of a committee has no voting right.

## 19. Funds of Authority

- (1) The funds of the **Authority** consist of-
- (a) moneys appropriated by Parliament to perform its functions;
  - (b) moneys which accrue to the **Authority** in terms of regulations made under *this Act* or in terms of any other applicable law;
  - (c) revenue obtained from investments;
  - (d) fees obtained from services provided by the **Authority**;
  - (e) donations received from any person, body, government or administration; and
  - (f) any other money received from any other source.

(In terms of Section 98(3)(d) the Minister, after consulting the Mining Qualifications Authority, by notice in the Gazette, may make regulations to provide for the funding of the Mining Qualifications Authority including the manner in which such funds may be raised.)

- (2) Moneys appropriated by Parliament must be used for-
- (a) the payment to **members** who are not in the full-time service of the State of such remuneration and allowances as the **Minister** may determine with the agreement of the Minister of Finance;
  - (b) the payment of salaries, allowances, subsidies and other benefits as approved by the **Minister**, with the agreement of the Minister of Finance to the **executive officer** and other employees of the **Authority**; and
  - (c) the payment for administrative functions of the **Authority**.
- (3) Moneys referred to in subitem (1) (b), (c), (d) or (f) may be-
- (a) used as contemplated in *this Act*;
  - (b) invested with any bank registered as such under the Banks Act, 1990 (Act 94 of 1990), or invested in such other manner as may be determined, by the **Minister** with the agreement of the Minister of Finance; and
  - (c) used to register or utilise any intellectual property of the **Authority**.

- (4) Moneys referred to in subitem (1) (e) must be utilised in accordance with the conditions, if any, imposed by the donor of such moneys.
- (5) The chairperson of the **Authority** must for each financial year, submit a statement of estimated income and expenditure during such financial year to the *Minister* who, with the agreement of the Minister of Finance, must approve the budget for
  - (a) the first financial year, before the first meeting of the **Authority**; and
  - (b) every other financial year, before the beginning of such financial year.

## 20. Accounting

- (1) The **executive officer** is the accounting officer of the **Authority**.
- (2) The accounting officer is responsible for all moneys received and payments made by the **Authority**.
- (3) The financial year of the **Authority** ends on 31 March in each year.
- (4) The accounting officer must cause records to be kept in accordance with the Generally Accepted Accounting Principles that are necessary to represent fairly the state of affairs and business of the **Authority** and to explain the transactions and financial position of the **Authority**.
- (5) Annual financial statements must be prepared in respect of every financial year. The statement must consist of
  - (a) a balance sheet dealing with the state of affairs of the **Authority**;
  - (b) a return of income received and expenses incurred by the **Authority**; and
  - (c) a statement of cash flow information.
- (6) The books of account, statements of account and annual financial statements of the **Authority** must be audited annually by the Auditor-General. The Auditor-General must compile a report on the audit and submit a copy of it to the *Minister* and the **chairperson** of the **Authority**.
- (7) The **executive officer** of the **Authority** must supply each member of the Authority with a copy of the report of the Auditor-General.
- (8) As soon as practicable after the report of the Auditor-General has been submitted to the Minister in terms of subitem (6), the Minister must table it in Parliament.

(Section 46(2)(b) provides that the Mining Qualifications Authority may administer and control its financial affairs.)

## **21. Abolition of Authority and committees**

- (1) The **Authority** may be abolished by an Act of Parliament.
- (2) The **Authority** may at any time abolish any **committee**.
- (3) A permanent or *ad hoc* committee may at any time abolish any subcommittee established by that committee.

## **22. Limitation of liability**

- (1) A **member** does not incur any civil liability only because of doing or failing to do something which such **member** may do or is required to do in terms of *this Act*.
- (2) The **Authority** does not incur any civil liability only because a **member** or employee of the **Authority** took an action or failed to take an action under or in terms of *this Act*, and in taking or failing to take that action such person acted without negligence and in good faith.

## **23. Amendments to constitution**

- (1) If the **Minister** or the **Authority** wants to amend the constitution, the **Minister** or the **Authority**, as the case may be, must serve a proposal containing such amendments to the chairperson of the **Council** who must convene a meeting to consider the proposal.
- (2) At such meeting the **Council** after consulting the **Authority** must consider the proposal and resolve either to-
  - (i). support the proposal as it is; or
  - (ii). support the proposal with certain amendments; or
  - (iii). oppose the proposal.
- (3) The **Council** must submit its resolution and the comments or the proposal of the **Authority**, as the case may be, to the **Minister**.
- (4) If the **Council** resolves to support the proposal with certain amendments or to oppose the proposal, the motivation for such resolution and the amendments, if any, must be included in the submission to the **Minister**.

- (5) If the **Authority** wants the constitution to be amended-
  - (a) the proposal by the **Authority** is deemed to be consultation by the *Council* with the **Authority** contemplated in subitem (2); and
  - (b) the resolution of the *Council* on the proposal by the **Authority** is deemed to be consultation by the *Minister* with the *Council* as contemplated in section 97 (1).
- (6) If the *Minister* is not satisfied with the amendments or the motivation for the amendments, the *Minister* may refer the proposal back to the *Council* for further consideration.

(Section 97(1) read with 97(4) of this Act authorises the Minister to add to, change or replace this Constitution, after consultation with the Council and the Mining Qualifications Authority, by publication in the Gazette.)

## 24. Interpretation

Unless the context indicates otherwise-

'**alternate**' means any person appointed as an alternate to a *member* under item 8 (10);

'**Authority**' means the Mining Qualifications Authority established by section 41 (3);

'**chairperson**' means any person who chairs any meeting of the **Authority** or a **committee**;

'**clear day**' means any day of the week except Sundays and public holidays;

'**committee**' means any *committee*, *ad hoc committee* or *subcommittee* of the **Authority**;

'**consensus**' means unanimous agreement;

'**education and training standards**' means registered statements of desired education and training outcomes and their associated assessment criteria as defined in section 1 of the **SAQA Act**;

'**establishing Authority**' means-

- (i). in the case of the **Authority**, Parliament by legislation;
- (ii). in the case of a permanent or *ad hoc* committee, the **Authority**; and
- (iii). in the case of a subcommittee, the **Authority** or any committee or *ad hoc* committee that establishes the subcommittee;

'**executive officer**' means the executive officer appointed in terms of item 10 (1) or designated in terms of item 10 (4);

'**learning**' means a process by which a person gains skills, knowledge and values;

'**member**' means any member of the **Authority** or any **committee** and includes any **alternate** designated by such member to attend a meeting of the **Authority** or any **committee** on behalf of such member;

'**National Qualifications Framework**' means the **National Qualifications Framework** as defined in section 1 of the **SAQA Act**;

'**other committee**' means-

- (a) an *ad hoc committee* established for a limited term to perform any function of the **Authority** which is not a function of any **committee**; and
- (b) a *subcommittee* established by-
  - (i). the **Authority** to perform a function which is not assigned by or under *this Act* to a **committee**; and
  - (ii). a permanent or an *ad hoc committee* to perform any function of that **committee**;

(If a function of the Authority needs to be performed on a permanent basis by a committee, the Authority may either delegate or assign the function to a committee or establish a new committee to perform the function.)

'**party**' means *employers*, *employees*, or the State, as the case may be;

'**qualification**' means the formal recognition of the achievement of the required number and range of credits and such other requirements at specific levels of the **National Qualifications Framework** as may be proposed by the Mining Qualifications Authority and determined by the South African Qualifications Authority as defined in section 1 of the **SAQA Act**; and

'**SAQA Act**' means the South African Qualifications Authority Act, 1995 (Act 58 of 1995).

## SCHEDULE 8

[Schedule 8 added by s. 33 of Act 74 of 2008.]

**TABLE 1**

### **MAXIMUM FINES OR PERIOD OF IMPRISONMENT THAT CAN BE IMPOSED FOR OFFENCES**

<b>Column 1</b>	<b>Column 2</b>
Section under which convicted	Maximum fine and term of imprisonment
2	R1000 000 or 5 yrs imprisonment
2A	R1000 000 or 5 yrs imprisonment
3	R1000 000 or 5 yrs imprisonment
5	R1000 000 or 5 yrs imprisonment
6	R1000 000 or 5 yrs imprisonment
7 (1)	R1000 000 or 5 yrs imprisonment
10	R1000 000 or 5 yrs imprisonment
11	R1000 000 or 5 yrs imprisonment
15	R500 000 or five years imprisonment
16	R500 000 or five years imprisonment
21 (1), (3) or (4)	R500 000 or five years imprisonment
22	R200 000 or two years imprisonment
24	R500 000 or five years imprisonment
52	R200 000 or two years imprisonment
53	R200 000 or two years imprisonment
62	R200 000 or two years imprisonment
66 (3)	R200 000 or two years imprisonment
70	R200 000 or two years imprisonment
71	R200 000 or two years imprisonment
84	R200 000 or two years imprisonment
85	R200 000 or two years imprisonment
87, 88, 89, 90	R50 000 or six months imprisonment
88	R300 000 or three years imprisonment

**TABLE 2**

### **MAXIMUM FINES THAT CAN BE IMPOSED FOR CONTRAVENTIONS CONTEMPLATED IN SECTION 55B**

The maximum fine that can be imposed in terms of section 55B may not exceed an amount of R1 000 000.

## **MINE HEALTH AND SAFETY ACT REGULATIONS**

### **Published under**

GN R93 in GG 17725 of 15 January 1997

### **as amended by**

GN R846 in GG 18078 of 21 June 1997

GN R1315 in GG 19354 of 16 October 1998

GN R721 in GG 20155 of 11 June 1999

GN R1486 in GG 20714 of 17 December 1999

(as corrected by GN R303 in GG 21029 of 24 March 2000)

GN R134 in GG 22055 of 9 February 2001

(as corrected by GN R787 in GG 23498 of 14 June 2002)

GN R569 in GG 23410 of 17 May 2002

GN R786 in GG 23498 of 14 June 2002

GN R904 in GG 23583 of 2 July 2002

GN R907 in GG 23586 of 2 July 2002

(as replaced by GN R1573 in GG 24168 of 13 December 2002)

GN R959 in GG 23615 of 12 July 2002

(as corrected by GN R886 in GG 25097 of 20 June 2003)

GN R1573 in GG 24168 of 13 December 2002

GN R1579 in GG 24168 of 13 December 2002

GN R886 in GG 25097 of 20 June 2003

GN R1237 in GG 25404 of 29 August 2003

GN R1792 in GG 25812 of 12 December 2003

GN R583 in GG 26333 of 14 May 2004

GN R783 in GG 26496 of 2 July 2004

GN R1304 in GG 26963 of 12 November 2004

(as corrected by GN R89 in GG 30698 of 1 February 2008)

GN R1323 in GG 26963 of 12 November 2004

GN R1224 in GG 28333 of 15 December 2005

(as corrected by GN R90 in GG 30698 of 1 February 2008)

GN R1225 in GG 28333 of 15 December 2005

(as corrected by GN R90 in GG 30698 of 1 February 2008)

GN R1226 in GG 28333 of 15 December 2005

GN 911 in GG 29214 of 8 September 2006

GN R989 in GG 29276 of 5 October 2006

GN R1279 in GG 29458 of 15 December 2006

[with effect from 1 July 2007]

GN 34 in GG 29544 of 19 January 2007

GN 86 in GG 30697 of 1 February 2008

GN R89 in GG 30698 of 1 February 2008

GN R90 in GG 30698 of 1 February 2008

GN R92 in GG 30698 of 1 February 2008

GN R93 in GG 30698 of 1 February 2008

GN R94 in GG 30698 of 1 February 2008

GN R1053 in GG 33752 of 12 November 2010

GN R1068 in GG 33763 of 19 November 2010

GN R89 in GG 34003 of 11 February 2011

GN R447 in GG 34308 of 27 May 2011

(as corrected by GN R621 in GG 36761 of 23 August 2013)

GN R622 in GG 36761 of 23 August 2013

GN R701 in GG 37980 of 12 September 2014

GN R702 in GG 37980 of 12 September 2014

GN R906 in GG 38216 of 21 November 2014

GN R125 in GG 38493 of 27 February 2015

[with effect from 3 months from date of publication, unless otherwise indicated]

GN R330 in GG 38708 of 24 April 2015

GN R332 in GG 38708 of 24 April 2015

GN R584 in GG 38970 of 10 July 2015

[with effect from three months after publication]

GN R893 in GG 41065 of 25 August 2017

GN R894 in GG 41065 of 25 August 2017

GN R896 in GG 41065 of 25 August 2017

**Notice No. R93 of 1997**

Notice No. R93

15 January 1997

Under section 98 of the Mine Health and Safety Act, 1996 (Act 29 of 1996), I, Penuell Mpapa Maduna, Minister of Minerals and Energy, hereby make the regulations in the Schedule.

**P M MADUNA**  
**Minster of Minerals and Energy**

## SCHEDULE 1<sup>1</sup>

### CHAPTER 1

#### APPOINTMENTS AND ADMINISTRATION

[Chapter 1 promulgated by GN R1315 of 16 October 1998.]

##### 1.1 Prescribed period for representations

- (1) Representations invited by the *Principal Inspector of Mines* as contemplated in section 55D(1)(b) must be submitted to the *Principal Inspector of Mines* within 30 days of the date of the invitation or within such further period or periods as the *Principal Inspector of Mines* may determine.

##### 1.2 Prescribed period for payment of fine

- (1) A fine imposed on an *employer* in terms of section 55D, must be paid to the *Principal Inspector of Mines* within 60 days of the date on which the fine was imposed or within such further period or periods as the person or court imposing the fine, may determine.
- (2) The date on which the fine is imposed is regarded as the date on which notification of the administrative fine was served on the employer by-
  - (a) hand;
  - (b) registered post; or
  - (c) any other form of communication agreed to between the *employer* and the *Principal Inspector of Mines*.

### CHAPTER 2

#### DUTIES AND RESPONSIBILITIES

[Chapter 2 not published.]

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[1. An italicised word or phrase is defined in section 102 of this Act and such word or phrase in bold is defined in Chapter 20 of these regulations. Unless otherwise indicated all references to sections are references to sections of this Act]

## CHAPTER 3

### ELECTRICITY

[Chapter 3 inserted by GN R332 of 24 April 2015.]

#### Definitions

In these Regulations, unless the context indicates otherwise:

- 'Accredited Test Laboratory'** (ATL) means an organisation that is accredited by the South African National Accreditation System (SANAS).
- 'Arc Flash'** means an uncontrolled electrical discharge through the air between **conductors** or between a **conductor** and earth. The resulting discharge of energy can result in fire, serious damage to electrical apparatus and injury or death to a person.
- 'Armouring'** means a **metallic covering** of an electric cable, in the form of tape, wire or tube enclosing one or more **conductors** to provide adequate mechanical protection against damage.
- 'Bus-coupler'** means a device, or set of devices, needed to facilitate the connection of two parallel **circuits**.
- 'Bus-section'** means a device, or set of devices, that will extend a bus-bar to another.
- 'Circuit'** means an interconnection of electrical elements such as resistors, inductors, capacitors, transmission lines, voltage sources, current sources and switches which have a closed loop giving a return path for the current.
- 'Clearance'** means a minimum distance any part of a person's body or any work tool may encroach to any unearthed, bare conductor or to any unearthed and unscreened conductor.
- 'Collectively Screened'** means having a conductive covering enclosing all power conductors as well as all control **conductors** within the protective outer sheath of a cable.
- 'Conductor'** means any substance or material which can transfer an electrical charge along or through it and is connected to an **electrical circuit**.
- 'Dead'** means at or about zero potential with respect to the general mass of earth and disconnected from any live reticulation system.
- 'Domestic Voltage'** means a voltage not exceeding  $230V \pm 10\%$  alternating current phase to neutral.
- 'Earthed'** means connected to the general mass of earth in such a manner as will ensure at all times an immediate discharge of electrical energy without risk.
- 'Electrical Apparatus'** means any apparatus, machine and fitting in which **conductors** are used, or of which they form a part.

**'Electrical Single-Line Diagram'** means a diagram that shows, by means of single lines and graphic symbols, the general layout of an electric circuit or system of circuits.

**'Flexible cable'** means a cable of which the conductors consist of strands of diameter not exceeding 0,51 mm and of which the insulation and covering are such that they afford flexibility and in which the nominal cross sectional area of each conductor exceeds 4 mm<sup>2</sup>, but shall not include signalling cable, telephone cable, blasting cable, or flexible cord used with electric apparatus at a voltage not exceeding domestic voltage alternating current on a single phase system.

**'Flexible cord'** means a cable of which the nominal cross sectional area of each conductor does not exceed 4 mm<sup>2</sup> and of which each conductor consists of strands of diameter not exceeding 0,31 mm.

**'Hazard Classification'** - A system developed for categorising electrical hazards based on the voltage and fault level ratings for electrical components.

**'High Voltage (HV)'** a set of nominal voltage levels in the range 44 kV and above to 220 kV.

**'Individually Screened'** means having a conductive covering enclosing power conductors individually within the protective outer sheath of a cable.

**'Isolation'** means disconnecting the apparatus from all possible sources of electrical potential and locking the apparatus in such a manner so that no energisation can take place.

**'Insulated'** means covered with any material that has the characteristic of low electrical conductivity such as to prevent an electrical discharge.

**'Live'** means electrically charged.

**'Lockout-tagout (LOTO)' or 'lock and tag'** is a safety procedure which is used to ensure that machines / switchgear and Electrical equipment are properly isolated, de-energised and tagged.

**'Low Voltage (LV)'** means a set of nominal voltage levels that are used for the distribution of electricity, the upper limit of which is an AC voltage of 1 000 V or a DC voltage of 1 500 V.

**'Medium Voltage (MV)'** means a set of nominal voltage levels above the range of 1 000 V to below 44 kV.

**'Metallic Covering'** means iron or steel armouring or metal conduit surrounding two or more conductors with or without a lead or other metallic sheath as required in terms of operational conditions.

**'Moveable Electrical Apparatus'** means **electrical apparatus**, excluding **self-propelled mobile machines** or **portable electrical apparatus**, which is not installed on permanent foundations and is intended to be moved from place to place.

**'Overhead Power Line'** means an overhead line erected to convey electrical energy for any purpose other than communication but excluding the overhead contact or catenary wires of an electrical traction system.

**'Permit to Work'** is a formal, written, safe system of work to control potentially hazardous activities. The permit details the work undertaken and the necessary precautions to be taken.

**'Portable Electric apparatus'** means **electric apparatus**, which is designed to be carried by hand, and may require electric power while being used.

**'Reticulation System'** means a **circuit** or combination of **circuits**.

**'Substation'** means a location containing medium or high voltage switchgear and associated equipment for the purpose of **isolation**, feeding, protecting and energising electrical equipment and reticulation systems.

**'Switchgear'** general term covering switching devices and their combination with associated control, measuring, protective and regulating equipment, also assemblies of such devices and equipment with associated interconnections, accessories, enclosures and supporting structures.

**'Trackless Mobile Machine'** means any self-propelled mobile machine that is used for the purpose of performing mining, transport or associated operations underground or on surface at a mine and is mobile by virtue of its movement on wheels, skids, tracks, mechanical shoes or any other device fitted to the machine, but excludes:

- (a) rail bound equipment;
- (b) scraper winches, mono rail installations, static winches, winding machinery installations and any equipment attached thereto.

**'Trailing Cable'** means cable used to supply power to any mobile machine and movable electrical apparatus which is designed to be dragged across the ground.

## Regulations

**3.1** The employer must take reasonable practicable measures to ensure that:

- (1) the design of all electrical apparatus and electrical reticulation systems are approved by a competent person;
- (2) all electrical apparatus are under the control of a competent person; and
- (3) all electrical apparatus are installed, repaired and maintained by a competent person.

**3.2** The employer must take reasonable practicable measures to ensure that no person suffers any electrical shock, arc flash or electrocution as a result of:

- (a) exposure to electrical current flow;
- (b) a person coming into contact with live exposed parts of any electrical apparatus;
- (c) exposure to electricity, arc flash, all fault currents, overvoltage and surges;
- (d) any electrical apparatus failing due to electromagnetic interference from other equipment;
- (e) any electrical apparatus being incorrectly designed, installed, operated or maintained; and
- (f) any exposure to blasts, fires or arc flashes resulting from electrical faults.

**3.3** The measures contemplated in regulation 3.2 must include measures to ensure:

**3.3.1** proper fencing off or enclosures or clearances of such electrical apparatus;

**3.3.2** that an extension of any electrical reticulation system is approved by a competent person before being energised, taking into account the reticulation network and the effect thereon;

**3.3.3** that only competent persons are permitted to energise, de-energise or isolate electrical apparatus where the operation of such apparatus poses a significant risk and that such apparatus are protected against unauthorised access and operation;

**3.3.4** that only competent persons authorised in writing by the employer to do so, carry out switching procedures on MV or HV equipment; and

**3.3.5** that where the interruption of electrical supply to any equipment could result in a significant risk, such electrical supply can be provided from another source or network, which can include an emergency supply alternator or generator, for power supply in the event of an interruption to the normal power supply.

**3.4** The **employer** must take **reasonable practicable** measures to ensure that at any place at a mine, where **electrical apparatus** are installed and which may constitute a danger to persons must be:

- (a) of adequate size so as to provide safe and unobstructed clear working space for operating and maintenance staff;
- (b) constructed and ventilated in such a manner that the apparatus is kept at a safe temperature to safeguard persons;
- (c) constructed in such a manner as to provide protection where necessary against the ingress of vermin and water;
- (d) illuminated in such a manner as to prevent any danger to persons and to enable all equipment to be distinguished clearly and all instruments, labels and notices to be read clearly while it is **live**;
- (e) equipped with effective means to safely disconnect the energy source; and
- (f) equipped with an effective fire extinguishing system.

**3.5** The **employer** must take **reasonable practicable** measures to ensure that at every **substation** there must be a legible, up to date single line drawing of the **reticulation system**, highlighting ring feeds, of which that **substation** is a part, displayed in a conspicuous place. Every **substation** must be clearly identified, and its position clearly marked on such drawing.

**3.6** The **employer** must take **reasonable practicable** measures to ensure that the area in which a **substation** is located is clearly demarcated and that notices are displayed at every point of entry to such an area. These notices shall:

- (a) prohibit access of any unauthorised person from accessing that area;
- (b) set out the procedures to be followed in the event of a fire;
- (c) set out the first aid treatment measures to be given to persons suffering from the effects of electric shock and burns;
- (d) indicate the presence of electricity;
- (e) describe measures to safely remove any person incapacitated as a result of contact with electricity; and
- (f) have available an effective means of communication.

**3.7** The **employer** must take **reasonable practicable** measures to ensure that all suspended electrical cables that could cause a fire due to faults or mechanical damage, in stopes, haulages or shafts either through damage by moving machinery or by fall of ground are properly protected by:

- (a) **switchgear** which is electrically supplied and commissioned with discrimination settings for overload and earth fault protection to prevent a fire;
- (b) **switchgear** installed which is correctly rated to prevent a fire or explosion;
- (c) all cables in areas where a fire can occur must be fire retardant cables or be coated with fire retardant material at areas in close proximity with timber; and
- (d) the **employer** must have a procedure to be followed in the event of such a fire.

**3.8** The **employer** of every coal mine must take **reasonable practicable** measures to ensure that all new main reticulation underground **substations** are designed and located such that they vent into the return air-way.

**3.9** The **employer** must take **reasonable practicable** measures to ensure that where mineral oil is used as the medium for insulation or cooling of **electrical apparatus**, adequate precautions are in place to address any significant risk in the event of an explosion, spillage or burning of the oil.

**3.10** The **employer** must take **reasonable practicable** measures to ensure that where **electrical apparatus** is accessible from the front and the back, each such apparatus are identifiable by clearly labelled and legible markings on the front and back fixed portions of such apparatus and on **switchgear** shutters.

**3.11** The **employer** must take **reasonable practicable** measures to ensure that where ring feeds including **bus-sections** and **bus-couplers** are accessible from the front and the back, each such apparatus are identifiable by clearly labelled and legible markings on the front and back fixed portions of such apparatuses and on **switchgear** shutters.

**3.12** The **employer** must take **reasonable practicable** measures to ensure that all **electrical apparatus** used for the distribution of electrical power, except **electrical apparatus** which contains **domestic voltages**, are clearly marked with the maximum voltage that may be present therein.

**3.13** The **employer** must take **reasonable practicable** measures to ensure that no examination, adjustment, testing, repair or other work necessitating the dangerous approach to or the handling of **electrical apparatus** shall be carried out unless such apparatus is **dead**: Provided that where such equipment must be **live** for the purpose of examination, adjustment, repair or other work it may be done by or under the direct supervision of a competent person.

**3.14** The **employer** must take **reasonable practicable** measures to ensure that no person other than a competent person authorised in writing by the **employer** to do so, enters a place where **electric apparatus** is installed unless all **live conductors** therein are **insulated** adequately or otherwise protected effectively against inadvertent contact: Provided that such authorised competent person may in case of an emergency be assisted by a person acting under the immediate personal supervision of such authorised competent person.

**3.15** The **employer** must take **reasonable practicable** measures to ensure that when work is to be carried out on **electrical apparatus** which have been isolated from all sources of electrical supply, effective precautions shall be taken:

- (i). by discharging all stored electrical energy, and
- (ii). testing for **dead** including any ring feeds by earthing such apparatus and, in the case of ring-feeds or dual supplies of power, by earthing on both sides of the associated **electrical apparatus** worked on, so as to prevent any **conductor** or apparatus from being made **live** while any person is working thereon.

**3.16** The **employer** must take **reasonable practicable** measures to ensure that any accessible metallic portion of **electric apparatus** which, though not normally forming part of an **electric circuit**, may inadvertently become **live**, is **insulated** or **earthed** by a **conductor** of adequate cross-sectional area capable of withstanding the maximum possible earth fault current condition, so as to prevent any significant risk to persons for the duration that the fault current may be flowing in the **circuit**.

**3.17** The **employer** must take **reasonable practicable** measures to ensure that whenever work is to be carried out on **electrical apparatus** which has been isolated from all sources of supply, effective precautions shall be taken by earthing or other means to discharge electrically such **electrical apparatus** or any adjacent **electrical apparatus** to prevent any **conductor** or apparatus from being made **live** accidentally or inadvertently while any person is working thereon.

- 3.18** The **employer** must take **reasonable practicable** measures to ensure that no metal ladder or ladder with metal reinforced stiles is used for examination, repair, or other work necessitating the dangerous approach to or work on **electrical apparatus**.
- 3.19** The **employer** must take **reasonable practicable** measures to ensure that any accessible metallic portion of electrical plant or apparatus which, though not forming part of an electrical **circuit**, may accidentally become **live** shall either be protected by an insulating material or shall be connected to earth by a **conductor** of adequate cross-section so as to prevent danger to persons.
- 3.20** The **employer** must take **reasonable practicable** measures to ensure that the cross-sectional area of any earthing **conductor** is calculated to be capable of withstanding the maximum possible earth fault current condition.
- 3.21** The **employer** must take **reasonable practicable** measures to draw up and implement a procedure for all energising, de-energising and **isolation** of medium or high voltage **electrical apparatus**.
- 3.22** The **employer** must take **reasonable practicable** measures to ensure that where any electrical cable is buried in the ground or installed in such a position that mechanical damage to it may occur, it is protected by **armouring**.
- 3.23** The **employer** must take **reasonable practicable** measures to ensure that all **flexible cables** or **trailing cables** may only be used in connection with the operation of-
- (a) any self-propelled mobile machine which requires electric power to operate such machine;
  - (b) movable **electric apparatus**; or
  - (c) portable **electric apparatus**.
- 3.24** The **employer** must take **reasonable practicable** measures to ensure that any **flexible cable** or **trailing cable** used in or on a mine or works shall be screened either individually or collectively and such screens shall be **earthed**: Provided that a cable used in a hazardous area shall be screened individually.
- 3.25** The **employer** must take **reasonable practicable** measures to ensure that no **flexible cable** or **trailing cable** shall have more than fifteen joint repairs, including sheath patches over a length of 200 metres and no joint repair or patch shall be closer than 5 metres to an adjacent joint, repair or patch and no joint, repair or patch shall be closer than 3 metres to the cable plug or its terminal connection at the machine or apparatus.

- 3.26** The **employer** must take **reasonable practicable** measures to ensure that any cable reel used in connection with self-propelled mobile machine shall be provided with a device which shall interrupt the power supply to the cable before the complete cable is unreeled so that at least one complete turn of the cable shall remain on the reel when the interruption of the power supply has been effected, unless the machine's maximum range of travel is limited to less than that permitted by the cable on the reel for reasons other than the length of the cable.
- 3.27** The **employer** must take **reasonable practicable** measures to ensure that no electrical cable trench or duct is left open, uncovered or unprotected, except when persons are working in such trench or duct or where precautions have been taken to prevent persons from inadvertently falling into such trench or duct.
- 3.28** The **employer** must take **reasonable practicable** measures to ensure that persons are prevented from significant risks arising from inadvertent contact with **overhead power lines** by **trackless mobile machines/rail bound equipment** or while erecting or moving structures or other objects.
- 3.29** The **employer** must take **reasonable practicable** measures to ensure that persons carrying out examinations, repairs or other work at elevated positions in close proximity to exposed **electrical apparatus** are protected from **live** electrical contact.
- 3.30** The **employer** must take **reasonable practicable** measures to ensure that surface residential and commercial buildings are to be wired and protected in accordance with South African Bureau of Standards Code of Practice SANS 10142-1, 2006, 'Wiring of premises and installations not exceeding 1 kV'. The normative references in SANS 10142-1, 2006 are not applicable to the **employer**.
- 3.31** The **employer** must take **reasonable practicable** measures to ensure that the design and construction of **overhead power lines** are in accordance with South African Bureau of Standards Code of Practice SANS 10280, 1995 '**Overhead power lines** for conditions prevailing in South Africa'. The normative references in SANS 10280, 1995 are not applicable to the **employer**.
- 3.32** The **employer** must take **reasonable practicable** measures to ensure that electrical security fencing is erected and maintained in accordance with the South African Bureau of Standards Code of Practice SANS 10222:2002, Part 3, 'Electrical Security Fences (non-lethal)'. The normative references of SANS 10222, 2002 are not applicable to the **employer**.

- 3.33 The **employer** must take **reasonable practicable** measures to ensure that any helmet light assemblies used underground at a mine complies with SANS 1438, 2013 'Helmet light assemblies for miners'. The normative references of SANS 1438, 2013 are not applicable to the employer.
- 3.34 The **employer** must take **reasonable practicable** measures to ensure that any helmet light assemblies used underground are tested in accordance with the requirements of ARP 0108:2013.
- 3.35 The **employer** must take **reasonable practicable** measures to ensure that the operating voltage of any portable lamp used at a mine does not exceed 32 volts.
- 3.36 The **employer** must take **reasonable practicable** measures to ensure that all **electric apparatus** are selected, installed, worked and maintained in such a manner as not to constitute a hazard and shall be placed and protected in such a manner that no person can be injured by inadvertent contact with any **live** portion.
- 3.37 The **employer** must take **reasonable practicable** measures to ensure that all **electric apparatus** used in a hazardous area shall be explosion protected and certified as such by an inspection authority (la) certificate issued by an **accredited test laboratory**.
- 3.38 The **employer** must take **reasonable practicable** measures to ensure that any type and design of explosion protected apparatus shall at all times be identified in an inspection authority (la) certificate and an identification number shall be allocated to such apparatus by the **accredited test laboratory**.
- 3.39 The **employer** must take **reasonable practicable** measures to ensure that **explosion protected** apparatus is not used at a mine unless the manager is in possession of a copy of the inspection authority certificate. The identification number referred to in regulation 3.36 must be clearly and indelibly marked on the apparatus or on a metal plate (other than a light metal) permanently fixed to the apparatus.

## CHAPTER 4

### EXPLOSIVES

[Chapter 4 substituted by GN R953 of 14 September 2018.]

#### Definitions

In this chapter, unless the context otherwise indicates-

"**blasting**" means the **initiation of explosives** for the purposes of fragmenting of rock or ore body;

"**explosive**" means –

- (a) a substance, or a mixture of substances, in a solid or liquid state, which is capable of producing an explosion;
- (b) a pyrotechnic substance in a solid or liquid state, or a mixture of such substances, designed to produce an effect by heat, light, sound, gas or smoke, or a combination of these, as the result of non-detonative self-sustaining exothermic chemical reaction, including pyrotechnic substances which do not evolve gases;
- (c) any article or device containing one or more substances contemplated in paragraph (a); or
- (d) any other substance or article which the relevant Minister may from time to time by notice in the Gazette declare to be an **explosive** in terms of the **Explosives Act**, Act No 15 of 2003;

"**hot holes**" means **shot holes** in a coal mine which after being drilled has an in hole ambient temperature of 40 degrees Celsius or above or an increase of 3 degrees Celsius;

"**initiate**" means the action or intended action of setting off **explosives**;

"**manufacture**" means the making or processing of any **explosive**;

"**misfire**" means any **explosives** which have failed to explode after initiation;

"**misfired hole**" means a **shot hole** or part of a **shot hole** in which any **explosives** or any portion thereof has failed to explode after initiation;

"**old explosives**" means any **explosives** that have been used or damaged in any way, or have deteriorated due to exposure to water or the surrounding atmosphere or which have expired; and includes **explosives** recovered from **misfired holes**;

"**permitted explosives**" means **explosives** classified as such by the Chief Inspector of Explosives (as defined in the Explosives Act, Act No 15 of 2003);

"**ore-body**" means any natural in-situ rock that contains any form of **mineral**;

"**primary blasting**" means all **blasting** other than **secondary blasting**;

"**primer**" means an **explosive** cartridge or booster into which a detonator or detonating fuse has been inserted or connected;

"**pumpable explosive**" means:

- (1) a mixture of ammonium nitrate, with or without other inorganic nitrates, with combustible substances which are not, classified as UN Number 0082, Class 1.1 D; or
- (2) a mixture of ammonium nitrate, with or without other organic nitrates, partially or wholly dissolved in water and with the addition of any of the following:
  - (i). ammonium nitrate emulsions, gels and suspensions, intermediate for **blasting**, classified as UN Number 3375;
  - (ii). combustible substances which are not **explosive**; or
  - (iii). substances which control the density of the final mix, either by chemical reaction or mechanically, and the final mix is classified as UN Number 0241, Class 1.1 D; or any form of **explosive** which is inserted in a hole by means of pumping;

"**secondary blasting**" means **blasting** for the purposes of removing obstructions, reducing rocks in size or making the workings safe;

"**shot hole**" means any drill hole charged with or intended to be charged with **explosives**;

"**sleep-over blast**" means any **shot hole** charged with **explosives** but not initiated in the same shift during which it was charged with **explosives**;

"**socket**" means any **shot hole**, or part of any **shot hole**, known not to be a **misfired hole**, which remains after having been charged with **explosives** and blasted or which, for any other reason, may be suspected of having contained **explosives** at any time and includes any **shot hole**, or part of any **shot hole**, from which all **explosives** have been extracted;

"**stemming**" means filling in **shot holes** with inert material; and

"**tamping**" means the consolidation of **stemming** and **blasting** materials in a **shot hole**.

#### 4.1 Security in respect of explosives

- (1) The **employer** at any **mine** must take **reasonably practicable** measures to prevent persons not authorised by the **employer** from-
  - (a) gaining access to **explosives**;
  - (b) being in possession of **explosives**, or
  - (c) removing or attempting to remove **explosives** from a **mine**

- (2) Only persons authorised by the **employer** at any mine may-
  - (a) gain access to or attempt to gain access to **explosives**;
  - (b) be in possession of **explosives**, or
  - (c) remove or attempt to remove **explosives** from a **mine**.
- (3) Subject to regulation 4.2(2), no person may, or cause or permit any other person to bury, hide, submerge or abandon any **explosives**.

#### **4.2 Receipt, storage, issuing and transportation of explosives**

- (1) The **employer** at any **mine** must ensure that:
  - (a) **explosives** that are not being transported or prepared for use are stored in **explosive stores**, silos or containers which are securely locked or, as far as **reasonably practicable**, designed and located so as to facilitate the safe and secure receipt, storage and issuing of **explosives** by a person referred to in regulation 4.1 (2);
  - (b) a written procedure is prepared and implemented, after consultation with the **explosive manufacturer** or supplier, to prevent persons from being exposed to the significant **risks** associated with the receipt, storage, issuing and transportation, inadvertent initiation and the deterioration of **explosives**. This written procedure referred to in this sub-regulation must include the following:

##### **Storage of explosives**

- (i). measures to ensure that every container used for the storage of **explosives**, including **old explosives**, is-
  - (a) of robust construction;
  - (b) provided with an effective lock and the key kept only by an authorised person referred to in regulation 4.1 (2);
  - (c) clearly marked to indicate the type of **explosives** to be placed therein;
  - (d) of a capacity determined by the **employer** in consultation with the **explosive manufacturer** or supplier;
  - (e) spaced apart from any other container used for storage of **explosives**, at a distance determined by the **employer** after consultation with the **explosive manufacturer** or supplier;
  - (f) approved in writing for that purpose by the **employer**;
- (ii). measures to ensure, at every **mine** where there is a significant **risk of old explosives** being present, that adequate storage facilities are provided for such **old explosives**;

- (iii). no person must place, or cause or permit any other person to place any other materials or any implements or tools, in the **explosives** containers other than those necessary for the preparation of initiation systems or **primers**; and
- (iv). measures to ensure that **primers** are kept separate from other **explosives** and stored in a container complying with regulation 4.2(1)(b)(i);

#### **Issuing of explosives**

- (v). measures to ensure, as far as **reasonable practicable**, that the **explosives** that have been ordered or issued do not exceed the **explosive** storage capacity of the storage facility in which it is intended to store those **explosives**, either underground or on surface; and

#### **Transportation of explosives**

- (vi). measures to ensure, as far as **reasonably practicable**, that **explosives** are only transported in vehicles, conveyances, unopened cases or locked containers approved in writing for that purpose by the **employer**.
- (2) The **employer** at any **mine** must take reasonable measures to ensure, when **mine** closure is intended, or when a **mine** is not being worked as contemplated in section 2(2), that the **Principal Inspector of Mines** and the Chief Inspector of **Explosives** (as defined in the **Explosives** Act, (Act No. 15 of 2003) are notified in writing as soon as **reasonably practicable**, if any **explosives** have been left behind at the **mine**, of-
- (i). the type, quantities and location of such **explosives**; and
  - (ii). the measures taken to safeguard persons from any significant **risks** associated with such **explosives**.

#### **Destruction of explosives**

- (3) The **employer** at any **mine** must ensure that a written procedure is prepared and implemented, after consultation with the **explosive manufacturer** or supplier, to ensure that **explosives** are destroyed safely and not re-used for any purpose. Such procedure must include measures to ensure that:
- (i). only the competent person contemplated in regulation 4.4(1) destroys **explosives**;
  - (ii). in the case of underground coal **mines**, **explosives** must be destroyed only on surface;
  - (iii). the Chief Inspector of **Explosives** and **Principal Inspector of Mines** are informed in advance if more than 50kg of **explosives** are to be destroyed at any one time; and

- (iv). no person destroys **explosives** on surface within a horizontal distance of 150 metres of any public building, public thoroughfare, railway line, power line or any place where people congregate or any other structure, which it may be necessary to protect in order to prevent any significant **risk**, unless:
- (a) a **risk** assessment has identified a lesser safe distance and any restrictions and conditions to be complied with;
  - (b) a written application accompanied by the following documents is submitted to the **Principal Inspector of Mines** for approval-
    - (i). a sketch plan indicating the distance from the **explosives** destruction area to the affected structures;
    - (ii). a **risk** assessment;
    - (iii). proof of consultation with the owners of the affected structures; and
    - (iv). restrictions and conditions.
  - (c) a written approval has been granted by the **Principal Inspector of Mines**; and
  - (d) any restrictions and conditions determined by the **Principal Inspector of Mines** are complied with.

#### **4.3 Approved explosives and the usage of explosives at mines**

- (1) The **employer** at any **mine** must take reasonable measures to ensure that only **explosives** approved in writing by the **employer** are used at the **mine**.
- (2) The **employer** at any **mine** must take reasonable measures to ensure that **explosives** are used in accordance with a written procedure prepared and implemented for that purpose by the **employer**, after consultation with the **explosive manufacturer** or supplier. The written procedure must include the following:
  - (a) All **explosives** must be used in the same sequence as they are issued;
  - (b) Under no circumstances must any **blasting** cartridge be broken or cut or a wrapper around any **blasting** cartridge be interfered with, except when preparing the **blasting** cartridge for the insertion of a detonator or detonating fuse;
  - (c) The only **primers** that are permitted to be prepared are **primers** that are required for immediate use;
  - (d) Where igniter cord is used, such an igniter cord must be laid as close as practicable to the face and not on, or in contact with timber or other combustible material or flammable substance not forming part of the **explosives** charges; and

- (e) Where **pumpable explosives** are used, the **pumpable explosives** are only sensitised at a **working place** where **explosive** charges are being prepared prior to the **pumpable explosives** being pumped into a **shot hole**.
- (3) The **employer** at any **mine** must take reasonable measures to ensure, if **explosives** are **manufactured** at the **mine**, that:
  - (a) it is done in accordance with a written procedure prepared and implemented for that purpose after consultation with the **explosive manufacturer** or supplier; and
  - (b) all mobile and portable **explosives** manufacturing units at a **mine** are used, inspected, serviced and maintained in accordance with a written procedure prepared and implemented for that purpose after consultation with the **explosives manufacturer** or supplier.
- (4) The **employer** at any **mine** must take reasonable measures to ensure that **explosive** powered tools are issued, stored, used and maintained in accordance with a written procedure prepared and implemented for that purpose by the **employer** after consultation with the **manufacturer** or supplier of such **explosive** powered tools.
- (5) The **employer** must take reasonable measures to ensure, subject to regulation 4.3(3), that only **permitted explosives** are used in fiery **mines**.
- (6) The **employer** at any **mine** must take reasonable measures to ensure that a written procedure is prepared and implemented after consultation with the **explosives manufacturer** or supplier to prevent persons from being exposed to significant **risks** associated with the spillage of **explosives**.

#### 4.4 Primary and Secondary blasting to be performed by a competent person

- (1) The **employer** at any **mine** must take reasonable measures to ensure, where **primary** or **secondary** **blasting** takes place, that a **competent person** is appointed in writing to—
  - (a) exercise control over all **explosives** to be used for **blasting** at those **working places** for which the **competent person** is responsible;
  - (b) prepare **primers**;
  - (c) examine any **shot hole** to be deepened to ensure it is safe to deepen;
  - (d) examine for and deal with **misfires** and **sockets**, in accordance with the written procedure prepared in terms of regulation 4.11;

- (e) mark or indicate **shot holes** for drilling or to authorise the drilling of **shot holes** marked or indicated by another person authorised to do so by the **employer**, except where the **shot holes** were marked or indicated by means of electronic software system, including but not limited to Global Positioning System or Laser, the **competent person** must be required to over inspect and authorise the commencement of drilling of **shot holes**;
- (f) exercise control over any manufacturing at the **working places** for which such **competent person** is responsible for, of pourable or **pumpable explosives** to be used;
- (g) connect **blasting** rounds or circuits;
- (h) charge **shot holes** with **explosives** or place **explosive** charges; and
- (i) make safe all **hot holes** in terms of the written procedure contemplated in regulation 4.16(5).

#### **Management and control over explosives**

- (2) The **employer** at any **mine** must take **reasonably practicable** measures to ensure that the **competent person** referred to in regulation 4.4(1) reports to the **employer**, whenever **explosives** are delivered to the **working place** for which that **competent person** is in charge, whether or not the correct quantity of **explosives** was delivered.

#### **Persons performing primary or secondary blasting may be assisted**

- (3) The **employer** at any **mine** may appoint a **competent person** in writing to assist the **competent person** referred to in regulation 4.4(1) with the following activities:
  - (a) exercising control over those **explosives** to be used during the performance of the duties of the **competent person** referred to in regulation 4.4(1) as stipulated in paragraphs (b), (c), (d) and (e) below;
  - (b) the preparation of **primers**;
  - (c) the charging of **shot holes** with or the placing of **explosive** charges;
  - (d) the connecting of **blasting** rounds or circuits; and
  - (e) the handling and transport of **explosives**, initiation systems and accessories.

#### **4.5 Certification of initiation apparatus and blasting systems**

- (1) The **employer** at any **mine** must take reasonable practicable measures to ensure that where initiation of **explosives** charges takes place by means of electricity-
  - (a) apparatus used for the initiation of electronic detonators complies with SANS 1717-1 (2006) 'The design and approval of Electronic Explosive Devices (EED) initiation systems for use in mining and civil **blasting**' and SANS 551 (2010) 'Detonators, relays and initiating devices for commercial applications';

- (b) apparatus used for the initiation of electric detonators complies with SANS 1717-2 (2006) The design and approval of **EEO** initiation systems for use in mining and civil **blasting** Part 2 "Electric Initiation System - Shot Exploder Based of SANS 1717";
  - (c) apparatus used for the initiation of detonators by means of a controlled **blasting** system complies with the relevant SANS 1717-3 (2014) "The design and approval of detonator initiation systems for use in mining and civil **blasting** Part 3 Controlled **Blasting** System";
  - (d) every shot exploder, initiator or electronic delay detonator system is tested and certified by a test laboratory accredited for this purpose by the government endorsed national accreditation body as contemplated in Approved Recommended Practice (ARP) 1717 (2010) "Guide to the regulatory requirements for the approval of detonators, initiators and initiation systems used in mining and civil **blasting** applications";
  - (e) every inherently safe apparatus used for the testing of a Circuit containing an electric detonator, electric or electronic initiator electronic delay detonator or a similar device is tested and certified for that purpose by a test laboratory accredited for this purpose by the government endorsed national accreditation body approved by the approving authority as contemplated in ARP 1717; and
  - (f) the shot-firing apparatus is maintained in an efficient and safe working order. Each shot-exploder must be provided with a removable operating handle or key or with a locking arrangement to secure it against unauthorised use and must be marked with a serial number, and a record must be kept of all examinations and tests carried out on it.
- (2) The normative reference in the SANS standards in regulation 4.5(1) above are not applicable to the **employer**.

#### 4.6 Precautionary measures before initiating explosive charges

- (1) The **employer** at any underground coal **mine** must take reasonable measures to ensure that the **competent person** referred to in regulation 4.4(1) does not initiate **explosive** charges in any underground coal **mine** unless the-
  - (a) coal to be blasted has two free faces;
  - (b) end of the **shot hole** is at least 150 millimetres short of the back of the cut providing the second of the two free faces; and
- (2) The **employer** at any underground coal **mine** must take reasonable measures to ensure that the **competent person** referred to in regulation 4.4(1) does not fire an **explosive** charge in an underground coal **mine** where the place where the **explosive** charge is to be fired is dry and dusty, unless -
  - (a) a **permitted explosive** is used; and

- (b) the place of firing and all contiguous accessible place(s) within a radius of 20 metres from it at the time of firing have been wetted through watering or have been given effective treatment with incombustible dust, in all parts where dust is lodged, whether roof, floor or side.
- (3) The **employer** at any underground **mine** must take reasonable measures to ensure that:
- explosives** are not brought to the working face where **blasting** is to be carried out unless:
    - the drilling of **shot holes** has been completed;
    - the **shot holes** are ready to be charged with **explosives**;
    - the quantity of **explosives** does not exceed the estimated required quantity to be used for the blast; and
  - a safe distance, to which **explosives** may be brought to the working face where drilling of **shot holes** is not completed, is determined by means of a **risk assessment** conducted by the **employer** in consultation with the **explosives manufacturer** or supplier.
- (b) the **competent person** referred to in regulation 4.4(1) does not **initiate** any **explosive** charge unless:
- the portion of the **shot hole** between the **explosive** charge and the collar of the **shot hole** is **stemmed** and **tamped** in accordance with the requirements of regulation 4.14;
  - all persons have been removed from the **working place** where **explosive** charges are to be **initiated**;
  - all entrances to the working place(s) where **explosive** charges are to be **initiated**, or to the places where the safety of person(s) may be endangered by such **initiation**, are effectively guarded so as to prevent inadvertent access to such place(s) while such **explosive** charges are being **initiated**; and
  - such **competent person**, gives or causes to be given due warning in every direction and is satisfied that no person remains where they might be exposed to danger from the **initiating** of such **explosive** charges;
- (4) The **employer** at any underground **mine** must take reasonable measures to ensure that the **competent person** referred to in regulation 4.4(1) or any person authorised to do so by the **employer** does not **initiate** an **explosive** charge in any underground **mine** where a centralised **blasting** system is being used, unless all persons who may be endangered by such **initiation** of **explosive** charges have been moved to a safe area.

- (5) The **employer** at any surface **mine** must take reasonable measures to ensure that:
- (a) no person remains or approaches, or is caused or permitted to remain or approach, within 15 metres of any **shot hole** being charged with **explosives**, unless such person is assisting in the charging up of **shot holes** with **explosives** or authorised by the **employer** in the interest of health and safety;
  - (b) **explosives** are not brought to the working bench where **blasting** is to be carried out unless:
    - (i). the drilling of **shot holes** have been completed;
    - (ii). the **shot holes** are ready to be charged with **explosives**;
    - (iii). the quantity of **explosives** do not exceed the estimated required quantity to be used for the blast; and
    - (iv). a safe distance, to which **explosives** may be brought to the working bench where drilling of shot holes is not completed, is determined by a **risk assessment** conducted by the **employer** in consultation with the **explosive manufacturer** or supplier
  - (c) the **competent person** referred to in regulation 4.4(1) does not **initiate** any **explosive** charge unless the portion of the **shot hole** between the **explosive** charge and the collar of the **shot hole** is **stemmed** and **tamped** in accordance with the requirements of regulation 4.14;
  - (d) before the **initiation** of **explosive** charges, an adequate number of guards are stationed at a safe distance determined by a **risk assessment** to prevent persons accessing the **blasting** area and that the guards remain at the safe distance until the **initiation** of **explosive** charges is completed and the guards are recalled by the **competent person** referred to in regulation 4.4(1); and
  - (e) at least three minutes before an **explosive** charge is **initiated**, the **competent person** referred to in regulation 4.4(1) gives due warning of the **initiation** of **explosive** charges.

4.7 The **employer** at any **mine** must take reasonable measures to ensure that when **blasting** takes place, air and ground vibrations, shock waves and fly material are limited to such an extent and at such a distance from any building, public thoroughfare, railway, power line or any place where persons congregate to ensure that there is no significant **risk** to the health or safety of persons.

4.8 The **employer** at any **mine** must take reasonable measures to ensure that the **stemming** or **tamping** is not withdrawn from a **shot hole** that has been charged with **explosives** except when dealing with **misfired holes** in accordance with the provisions of regulation 4.11.

### **Precautions after charges have been initiated**

**4.9** The **employer** at any **mine** must take reasonable measures to ensure that after **explosive** charges have been **initiated** or **misfired holes** have been re-initiated, the **competent person** referred to in regulation 4.4(1) does not approach, or causes or permits any other person to approach, within the range of the exploding charges until such competent person is satisfied that all the **explosive** charges have exploded or until a period of 30 minutes has expired, after the **initiation** of the charges.

### **4.10 Precautions when initiating by means of electricity**

- (1) The **employer** at any **mine** must take reasonable measures to ensure that, where **initiating** takes place by means of electricity, the **competent person** referred to in regulation 4.4(1), after such **competent person** has connected the **blasting** cable to the detonator wires of any **explosive** charge or charges and before such **explosive** charge or charges have been **initiated**, does not-
  - (a) remain or approach, or cause or permit any other person to remain or approach, within a distance where such person may be endangered by the **initiating** of such **explosive** charges, except for the purpose of examining the **blasting** circuit; and
  - (b) examine the **blasting** circuit, or cause or permit the **blasting** circuit to be examined, unless both leads are disconnected from any source of electricity, whether for **initiating explosive** charges or testing the **blasting** circuit.
- (2) The **employer** at any **mine** must, where **initiation** takes place by means of electricity, take reasonable measures to ensure that the **competent person** referred to in regulation 4.4(1)-
  - (a) only uses a **blasting** cable provided for that purpose and which is in good order and of sufficient length to ensure that the **blasting** cable cannot come into contact with any other cable or electrical apparatus;
  - (b) secures the **initiating** device of the blast in an adequate and reasonable manner so as to prevent unauthorised access or use of the **blasting** system;
  - (c) connects the **blasting** cable to the detonator wires of any **explosive** charge or charges or to the wires of the initiator or similar device only after completing all **blasting** precautions, other than those referred to in paragraphs (d), (e) and (g) of this regulation;
  - (d) does not apply any electrical test to the **blasting** circuit except through the **blasting** cable and from a place of safety;

- (e) does not connect the **blasting** cable to the terminals of the **initiating** device until immediately before **initiation** of **explosive** charges or attempting to **initiate** the **explosive** charges;
  - (f) except in the case of a remotely operated centralised electric **blasting** system, immediately after **initiating** or attempting to **initiate** the **explosive** charges, disconnects both leads of the **blasting** cable from the **initiating** device and then-
    - (i). removes the operating handle or key of the **initiating** device; or
    - (ii). secures the locking arrangement of the **initiating** device and removes the key;
  - (g) in the case of a remotely operated centralised electric **blasting** system, does not connect the **blasting** cable to the terminals of the **blasting** box until immediately before leaving such **competent person's working place** at the end of the shift; and
  - (h) in the case of a remotely operated centralised electric **blasting** system, disconnects immediately at the commencement of the shift any **blasting** cable from the terminals of the **blasting** box;
- (3) The **employer** at any **mine** must take reasonable measures to ensure that, after the **explosive** charges have been **initiated** by means of electricity, the competent person referred to in regulation 4.4(1):
- (a) carefully examines for **misfired holes** where the charges have been **initiated**, before permitting any person to work there;
  - (b) instructs any person engaged in clearing the broken rock, **mineral** or ground to report immediately to such **competent person** the finding of any wires that may lead to a **misfired hole**; and
  - (c) carefully traces any such wires to determine whether or not a **misfired hole** has occurred.
- (4) The **employer** at any **mine** must take **reasonably practicable** measures to ensure that where the **initiation** of **explosives** takes place by means of electricity and where there is a **risk** of an **explosive** charge being **initiated** by lightning, operations in connection with the preparation or **initiation** of **explosive** charges are not started or continued on the approach of or during a thunderstorm and that no person remains, or is caused or permitted by any other person to remain, within an area where any person may be injured by the accidental **initiation of explosives**.

#### 4.11 Precautions for misfires, sockets and old explosives

The **employer** at any **mine** must take reasonable measures to ensure that a written procedure is prepared and implemented, after consultation with the **explosive manufacturer** or supplier, to prevent persons from being exposed to the significant risk associated with **misfires, sockets** and **old explosives**. Such procedure must include measures to ensure that:

- (1) no person gains inadvertent access to any **misfired hole** which is not immediately dealt with, and which measures should include clearly marking the **misfired hole** or barricading it off and requiring reporting of the **misfired hole** to all subsequent shifts, at the start of each such shift, until the **misfired hole** has been dealt with;
- (2) in any shaft in the course of being sunk, in addition to the requirements of regulation 4.9:
  - (a) the **competent person** referred to in regulation 4.4(1) makes a sketch showing the position of every **misfired hole** and **sockets**;
  - (b) every sketch referred to in regulation 4.11 (2) is kept at the **mine** for a period of at least seven days unless directed otherwise in writing by the Principal Inspector of Mines; and
  - (c) the washing or blowing over and the preparation of the sketch required in terms of regulation 4.11 (2) is done at least once a day under the immediate supervision of the **competent person** referred to in regulation 4.4(1) to do so, and this **competent person** ensures that the washing or blowing over has been effectively done and the sketch properly prepared by means of personal inspection;
- (3) **explosives** are only extracted from any **misfired hole** by a means determined for this purpose after consultation with the **explosives manufacturer** or supplier;
- (4) the person extracting **explosives** from a **misfired hole**:
  - (a) ensures as far as **reasonably practicable** that all the **explosives** in the **misfired hole** are extracted; and
  - (b) recovers all **explosives** that have been extracted from the **misfired hole**;
- (5) no person removes or causes any other person to remove the plugs that are used to plug **sockets** or **misfired holes** unless such plugs are removed by the **competent person** referred to in regulation 4.4(1) for the purpose of inspection or are removed at the end of the shift prior the **initiating** of **explosive** charges;

- (6) At any surface **mine** the **competent person** referred to in regulation 4.4(1):
- (a) re- **initiates** the **misfired hole**; or
  - (b) drills or causes to be drilled in the presence of such **competent person**, a relieving hole not less than 150 millimetres deeper than the **misfired hole** and which relieving hole is parallel to and not nearer than a distance determined by **risk** assessment to the **misfired hole** and that such **competent person** charges and **initiates** this relieving **shot hole** and recovers the **explosives** liberated from the **misfired hole**. The **risk** assessment must consider the following:
    - (i). hole diameter;
    - (ii). hole depth;
    - (iii). burden and spacing; and
    - (iv). geology. or
  - (c) extracts the **explosives** from the **misfired hole** in accordance with the provisions of regulation 4.11 (3).
- (7) At any underground **mine**, except underground coal **mines**, the **competent person** referred to in regulation 4.4(1):
- (a) examines every **socket** and **misfired hole** to ascertain its depth, direction and whether it contains any **explosives**, by a means determined by the **employer** after consultation with the **explosives manufacturer** or supplier; and
  - (b) extracts **explosives** from the **misfired hole** in accordance with the provisions of regulation 4.11 (3) and plugs the **socket** with a plug supplied for that purpose by the **employer**; or
  - (c) re-primes and **blasts**; or
  - (d) charges up the **misfired holes** with **explosives** and **initiates** the **explosive** charges; or
  - (e) **blasts the misfires** at the end of the shift;
- (8) At any underground coal **mine** the **competent person** referred to in regulation 4.4(1):
- (a) where a **misfired hole** is in stone, extracts the **explosives** from the **misfired hole** in accordance with the provisions of regulation 4.11 (3) and charges up the **misfired holes** with **explosives** and **blasts** the **misfires** before or at the end of the shift;
  - (b) where a **misfired hole** is in a coal, drills or causes to be drilled in the presence of such **competent person**, a relieving **shot hole** parallel to and not nearer than 300 millimetres to the **misfired hole** and that such **competent person** charges and **initiates** the **explosives** charge contained in the relieving **shot hole** before or at the end of the shift.

### **Precautionary measures for marking, drilling and blasting**

**4.12** The **employer** at any **mine** must take reasonable measures ensure that a written procedure is prepared and implemented, after consultation with the **explosive manufacturer** or supplier, to prevent persons from being exposed to the significant **risk** associated with marking, drilling and **blasting** of **shot holes**. Such procedure must include measures to ensure that:

- (1) At any underground **mine** before the **competent person** referred to in regulation 4.4(1) points out or marks any **shot hole** for drilling, such **competent person**:
  - (i). removes or causes to be removed all loose or loosened rock, **mineral** or ground to a safe distance from the **shot hole** determined by a **risk assessment**;
  - (ii). searches for any **misfired hole** or **socket** within a distance of at least the length of the drill steel used in all directions from the proposed position or mark; and
  - (iii). ensure that no person drills or causes or permits to be drilled any **shot hole** unless the position and direction of the **shot hole** has clearly been marked by such **competent person** with a paint or other suitably visible material, or, if such marking is impracticable, has pointed out the exact position and direction of the **shot hole**;
- (2) At any underground **mine** other than coal **mine**:
  - (a) no person drills or causes or permits to be drilled any **shot hole** unless it-
    - (i). is placed more than 150 millimeters from any **socket** and is drilled in such a direction that it will nowhere come nearer than 150 millimeters from any **socket**;
    - (ii). is placed more than two metres from any **misfire** and is drilled in such a direction that it will nowhere come nearer than two metres from any **misfired hole**; and
    - (iii). deviates from the position and direction indicated as contemplated in paragraph (i) above;
  - (b) no person drills or causes or permits to be drilled any **shot hole** in any shaft, drive, crosscut, winze, raise, bord, stall or other similar confined space underground where there is known to be a **misfired hole** until the **misfired hole** has been dealt with in accordance with the provisions of regulation 4.11 (3);
  - (c) no person deepens or causes or permits any other person to deepen any hole which has been left standing or which is not completed at the end of a shift, unless:

- (i). it has not been charged with **explosives** and it has been clearly described by the **competent person** referred to in regulation 4.4(1) in charge of the shift leaving work to the **competent person** referred to in regulation 4.4(1) in charge of the shift about to commence; or
  - (ii). the **competent person** referred to in regulation 4.4(1) examines such hole and finds it not to contain any **explosives**.
- (3) At any surface **mine**:
- (a) before any **competent person** referred to in regulation 4.4(1) points out or marks any **shot hole** for drilling or authorises any other person to point out or mark the position and direction of any **shot hole** for drilling, such **competent person** searches for any **misfired hole** or **socket** within a distance referred to in regulation 4.11 (6)(b).
  - (b) no person drills or causes or permits to be drilled any **shot hole**, unless:
    - (i). it is placed at a distance as referred to in regulation 4.11 (6)(b) from any **socket** and is drilled in such a direction that it will nowhere come nearer than such determined distance from the socket;
    - (ii). it is a **shot hole** that deviated from the position and direction indicated in paragraph (a) above; and
    - (iii). no person deepens or causes or permits any other person to deepen any **shot hole** that has been left standing or which has not been completed at the end of a shift, unless it has not been charged with **explosives** and has been clearly described by the **competent person** referred to in regulation 4.4(1) in charge of the shift leaving work to the **competent person** referred to in regulation 4.4(1) in charge of the shift about to commence.

#### **Prevention of flammable gas and/or coal dust explosions**

**4.13** The **employer** at any underground **mine** must take reasonable measures to ensure that:

- (1) a blow out, ignition of flammable gas or **initiation** of a coal dust explosion does not occur due to the design and positioning of the **shot holes** or due to the type of **explosives** that are used;
- (2) **initiating** devices or systems used in **blasting** operations are designed not to cause a methane or coal dust explosion;
- (3) testing for flammable gas is done in accordance with a written procedure prepared and implemented for this purpose; and

- (4) no **explosives** are **initiated** where flammable gas or coal dust may be present in sufficient quantities to cause a flammable gas or coal dust explosion or to cause flammable gas to burn.

#### **Shot holes to be stemmed and tamped**

**4.14** The **employer** at any **mine** must take reasonable measures to ensure that:

- (1) no **explosives** contained in a **shot hole** are initiated unless a portion of the **shot hole** between the **explosive** charge and the collar of the **shot hole** is **stemmed** and **tamped** by means of a material determined for that purpose by the **employer** in consultation with the **explosives manufacturer** or supplier and **stemming** manufacturer or supplier, to prevent persons from being exposed from the significant **risks** associated with **explosives** detonating outside the **shot hole**, blow outs, fly rocks and harmful **explosives** gases escaping from the **shot hole**.
- (2) the length of **stemming** and **tamping** of a portion of a **shot hole** between the **explosive** charge and the collar of a **shot hole** is determined by means of a risk assessment conducted by the **employer** in consultation with the **explosives manufacturer** or supplier, **stemming** manufacturer or supplier and the **competent person** contemplated in regulation 14.1 (8). The **risk** assessment must consider at least the following:
  - (a) coupling ratio of **explosives**;
  - (b) energy released to protect in situ rock;
  - (c) containment of fly rock and air blast;
  - (d) blast design and type of explosives;
  - (e) geology and type of rock; and
  - (f) safety in dealing with misfired holes.
- (3) the material used for **stemming** and **tamping** complies with SANS 120:2009, Edition 2 "Stemming for use in blasting";

#### **Amount or mass of explosives in a shot hole**

**4.15** The **employer** at any **mine** must take **reasonably practicable** measures to ensure that the maximum amount or mass of **explosives** used per **shot hole** is according to the **manufacturer's** or supplier's recommendations.

## General precautions

**4.16** The employer must take reasonable measures to ensure that:

- (1) at any mine other than a coal mine, no explosive charges are initiated during the shift unless:
  - (a) such explosive charges are necessary for the purpose of secondary blasting or reinitiating the misfired holes in development faces;
  - (b) written approval for such initiation has been granted by a person authorised to do so by the employer; and
  - (c) reasonable precautions have been taken to prevent, as far as possible, any person from being exposed to smoke, fumes or fly rocks from such initiation of explosive charges;
- (2) no blasting operations are carried out within a horizontal distance of 500 meters of any public building, public thoroughfare, railway line, power line, any place where people congregate or any other structure, which it may be necessary to protect in order to prevent any significant risk, unless:
  - (a) a risk assessment has identified a lesser safe distance and any restrictions and conditions to be complied with;
  - (b) a written application is submitted to the Principal Inspector of Mines accompanied by the following documents for approval-
    - (i). a sketch plan indicating the distance from the blasting area to the affected structures;
    - (ii). the risk assessment;
    - (iii). a proof of consultation with the owners of the affected structures; and
    - (iv). restrictions and conditions.
  - (c) a written approval has been granted by the Principal Inspector of Mines; and
  - (d) any restrictions and conditions determined by the Principal Inspector of Mines are complied with.
- (3) at any mine, no person smokes, lights a fire or brings a naked light or flame, within a distance of 10 meters of where explosives are being loaded, transported, off loaded, handled or explosive charges are being prepared;
- (4) at any mine, blasting takes place only at a time determined in writing by the employer;
- (5) at any surface mine, a written procedure is prepared and implemented, after consultation with the explosive manufacturer or supplier, to prevent persons from being exposed to the significant risks associated with hot holes. Such procedure must include:

- (a) where there is a significant **risk of hot holes** occurring, that the **competent person** referred to in regulation 4.4(1) measures the temperature of the **shot hole**; and
  - (b) that the temperatures of the **shot holes** are measured at any point throughout the length of the **shot hole** and recorded prior and during charging up operations.
- (6) at any **mine**, a written procedure is prepared and implemented after consultation with **explosives** manufacturer or supplier to ensure that **sleep-over blasts** are carried out safely;
- (7) at any **mine**, a written procedure is prepared and implemented, after consultation with the **explosive** manufacturer or supplier, to prevent persons from being exposed to significant **risks** associated with **secondary blasting**. The written procedure must include measures to ensure that:
- (a) all persons are moved to a safe area prior to **secondary blasting** taking place;
  - (b) guards are placed at all entrances at a safe distance determined by **a risk assessment**, to the area where **secondary blasting** is to take place; and
  - (c) written approval from a person authorised by the **employer** to do so, is granted before **secondary blasting** is carried out.
- (8) **the competent person** referred to in regulation 4.4(1):
- (a) takes all reasonable precautions to safeguard every person assisting such **competent person** in the preparation of **explosive** charges against injury;
  - (b) only charges **shot holes** with **explosives** within a reasonable time of **initiation** and after all persons not required to assist in the charging have been removed to a safe distance determined by **risk assessment**;
  - (c) charges only the **shot holes** or prepare only the **explosive** charges that are intended to be **initiated** at the next blast and, while **explosives** charges are awaiting **initiation**, ensures that they are not interfered with;
  - (d) except as may be necessary to **re-initiate a misfired hole** or specialised blast design for holes more than 4 meters in length; does not insert more than one detonator into an **explosive** charge, provided that in wet workings two detonators may be used only if they are both inserted into the same cartridge and securely fastened to it;
  - (e) only uses a means, appliance or material supplied by the **employer** for the purpose of **initiating** of **explosive** charges or testing of a **blasting circuit**; and
  - (f) before any charge is **initiated**, takes adequate measures to prevent injury to persons or damage to property caused by **blasting** operations.

**4.17** No person:

- (1) may drill or cause to be drilled or **blast** any **shot hole** in a subterranean tunnel intended to be used for purposes other than extracting **minerals**, unless-
  - (a) a **risk assessment** has identified a safe distance to blast such a **shot hole** and any restrictions and conditions to be complied with;
  - (b) a written application accompanied by the following documents is submitted to the **Principal Inspector of Mines** for approval-
    - (i). a sketch plan,
    - (ii). the **risk assessment**,
    - (iii). restrictions and conditions;
  - (c) a written approval has been granted by the **Principal Inspector of Mines**; and
  - (d) any restrictions and conditions determined by the **Principal Inspector of Mines** are complied with;
- (2) who is engaged in handling **explosives** or who is travelling in a vehicle in which **explosives** are being transported may carry matches or any other means of producing a flame or a spark;
- (3) warned of the **initiation of explosive** charges as contemplated in regulation 4.6(5)(d) may remain in or enter the unsafe area surrounding the place where the **initiation of explosives** is to take place.

**4.18** Every person at any **mine** must report, in a manner prescribed by the **employer**, without delay any case of gassing, however slight, to ensure that such case receives prompt medical attention.

## CHAPTER 5

### FIRE AND EXPLOSIONS

[Chapter 5 promulgated by GN R904 of 2002 and amended by GNR 1237 of 2003.]

**5.1 Report to Employer**

- (1) The **employer** must ensure that a competent person reports to the **employer**, at appropriate intervals determined in accordance with the mine's **risk assessment**, on-
  - (a) the effectiveness of the precautionary measures taken to prevent or suppress explosions of coal dust or flammable gas; and
  - (b) the adequacy of measures in place to prevent, detect and combat the start and spread of *mine* fires.

- (2) Where at any area at a mine, a fire could pose a significant risk to the health and safety of persons, the *employer* must take reasonable measures to ensure that flammable liquids, gases and materials in use, are transported, stored, deposited, used and disposed of in such a way as to prevent the starting or spreading of a fire.
- (3) The *employer* at any mine at which a fire occurs must, as soon as practicable, notify the *employer* of any other *mine* at which the spread of such fire could constitute a *hazard* should such fire not be immediately extinguishable, of the existence of that fire.
- (4) The *employer* must take *reasonably practicable* measures to ensure that any coal, coal debris or bituminous rock is deposited so that it does not pose a significant *risk* to the *health* or *safety* of any person.
- (5) The *employer*, at any mine where the risk assessment indicates a risk of the presence of flammable gas, must ensure that all flammable gas measuring instruments and flammable gas warning devices used at the mine for the detection of methane or hydrogen or a mixture of both, comply with the South African National Standard Specification SANS 1515-1: 2006, Edition 2.1 'Gas measuring equipment primarily for use in mines: Part 1: Battery operated portable, flammable gas measuring instruments and warning devices'.

[Sub-reg. 5.1(5) added by GNR. 92 of 2008.]

- (6) Annex A: '**Assessment of Compliance with this part of the Specification**' contained in South African National Standard Specification SANS 1515-1: 2006, Edition 2.1 shall, for the purpose of regulation 5.1(5), be deemed to be normative.

[Sub-reg. 5.1(6) added by GNR. 92 of 2008.]

Reference is made to the following Guidelines issued by the **Chief Inspector of Mines** in terms of section 9(2) of this Act.

- (i). Guideline for the Compilation of a Mandatory Code of Practice for the Prevention of Coal Dust and Flammable Gas Explosions: Ref.: DME 16/3/2/1A1.
- (ii). Guideline for the Compilation of a Mandatory Code of Practice for the Prevention of Flammable Gas Explosions in Mines Other than Coal DME 16/3/2/1A2.

## CHAPTER 6

### HEALTH AND SAFETY REPRESENTATIVES AND COMMITTEES

[Chapter 6 promulgated by GN R93 of 1997 and substituted by GN R846 of 1997.]

#### 6.1 Prescribed period for negotiations and consultations

- (1) The *owner* of a *mine* required to enter into negotiations in terms of sections 26(1) and 33(1), must commence negotiations within one month of the obligation to do so arising.
- (2) The *manager* of a *mine* required to enter into consultations in terms of section 26(6) or (7) and 33(6) or (7), must commence consultations within one month of the obligations to do so arising.
- (3) If no collective agreement is concluded on the number of full-time *health* and *safety representatives* within three months of negotiations commencing in terms of regulation 6.1(1), any party to a dispute in terms of section 26(8)(a) may refer the dispute to the *Commission*.
- (4) If no agreement is concluded on the number of full-time *health* and *safety representatives* within three months of consultations commencing in terms of regulation 6.1(2), any party to a dispute in terms of section 26(8)(b) may refer the dispute to the *Commission*.

#### 6.2 Application of regulations

If a collective agreement dealing with the election of *health* and *safety representatives*, full-time *health* and *safety representatives* or *employee* representatives on *health* and *safety committees* is concluded in terms of Chapter 3 of *this Act*, the regulations in this Chapter dealing with such election do not apply.

#### 6.3 Establishment of election committee

- (1) The *manager* must establish an election committee.
- (2) The election committee-
  - (a) must include an appropriate number of *employee* representatives; and
  - (b) may include a number of management representatives.
- (3) If the election committee includes management representatives, their number must be equal to or less than the number of *employee* representatives.
- (4) The *employee* representatives on the election committee must be appointed-

- (a) by the representative trade union at the mine;
- (b) if there is no representative trade union at the mine, by the registered trade unions with members at the mine; or
- (c) if there is no registered trade union with members at the mine, by the employees at the mine.

#### **6.4 Duties of election committee**

The election committee must-

- (a) determine fair and reasonable procedures for the nomination and election of *health and safety representatives*;
- (b) ensure that elections are conducted in terms of such procedures;
- (c) appoint an election officer and one or more counting officers for each election; and
- (d) after consulting the manager, determine the date, time and place of each election.

#### **6.5 Duties of manager**

(1) The manager must-

- (a) as far as practicable, ensure that every *employee* is made familiar with the nomination and election procedures;
  - (b) give reasonable and understandable notice to the employees of the date, time and place of each election;
  - (c) provide the facilities and assistance reasonably necessary for the election committee to perform its functions;
  - (d) provide the facilities reasonably necessary for
    - (i). the election of *health and safety representatives*; and
    - (ii). the appointment of *employee* representatives on any *health and safety committee*; and
  - (e) provide reasonable time off from work, without loss of remuneration, for employees to participate in the elections of *health and safety representatives*.
- (2) The *Chief Inspector* may issue guidelines regarding the facilities and assistance to be provided in terms of regulation 6.5(1).

#### **6.6 Nomination of health and safety representatives**

- (1) Every candidate for election as a *health and safety representative* for a shift and designated *working place* must be nominated for election by an *employee* who works on the same shift at the designated *working place*.
- (2) Every candidate for election as full-time *health and safety representative* for a mine must be nominated for election by an *employee*.

## **6.7 Procedures for the election of health and safety representatives**

- (1)
  - (a) If only one candidate is nominated for election as a *health and safety representative* for a shift at a designated *working place*, the election officer must declare the candidate elected.
  - (b) If two or more candidates are nominated for election as a *health and safety representative* for a shift at a designated *working place*, the election officer must hold an election.
- (2) Every election for a *health and safety representative*-
  - (a) must be under the control of the election officer; and
  - (b) is only valid if 50% or more of the employees who work on the same shift at the designated *working place* concerned vote in the election.
- (3)
  - (a) If less than 50% of the employees who work on the same shift at the designated *working place* concerned vote in an election, the election officer must, after consulting the manager, determine a date, time and place for a subsequent election.
  - (b) Regulation 6.7(2)(b) does not apply to such subsequent election.
- (4) Every *employee* on a shift at a designated *working place* has one vote in the election of every *health and safety representative* for that shift and designated *working place*.
- (5) The counting officers must, under the supervision of the election officer, count all valid votes.
- (6) The election officer must announce the results of the count to the employees concerned.
- (7) If an election for an alternate *health and safety representative* is held, it must be conducted in the same manner as an election for a *health and safety representative*.

## **6.8 Procedures for the election of full-time health and safety representatives**

- (1) If the number of candidates nominated for election as full-time *health and safety representatives* at a mine is-
  - (a) not more than the number that must be elected, the election officer must declare the candidates elected; or
  - (b) more than the number that must be elected, the election officer must hold an election.

- (2) Every election for a full-time *health and safety representative*-
  - (a) must be under the control of the election officer; and
  - (b) is only valid if 50% or more of the employees vote in the election.
- (3)
  - (a) If less than 50% of the employees vote in an election, the election officer must after consulting the manager, determine a date, time and place for a subsequent election.
  - (b) Regulation 6.8(2)(b) does not apply to the subsequent election.
- (4) Every *employee* has one vote in the election of every full-time *health and safety representative*.
- (5) The counting officers must, under the supervision of the election officer, count all valid votes.
- (6) The election officer must announce the results of the count to the employees.

#### **6.9 Appointment of health and safety representatives**

The manager must-

- (a) within 7 days of election, appoint in writing every *employee* elected as a *health and safety representative*;
- (b) provide every *health and safety representative* with suitable means of identification as a *health and safety representative*; and
- (c) prominently and conspicuously display the photograph and name of the *health and safety representative* at an appropriate place at the mine.

#### **6.10 Appointment of employee representatives on health and safety committee**

Every *employee* representative on a *health and safety committee* at a mine must be appointed by a majority of the *health and safety representatives* at the mine.

#### **6.11 Period of office**

- (1) The period of office of any *health and safety representative* or *employee representative* on a *health and safety committee* is three years.
- (2) Despite regulation 6.11(1) the *health and safety committee* may determine shorter periods of office for-
  - (a) *health and safety representatives*;
  - (b) full-time *health and safety representatives*; and
  - (c) *employee representatives* on a *health and safety committee*.

- (3) Every *health* and safety representative and *employee* representative on a *health* and safety committee may be reappointed in accordance with the provisions of these Regulations after the expiry of their periods of office.

#### **6.12 Vacation of office and filling of vacancies**

- (1) A *health* and safety representative must vacate office on expiry of that representative's period of office or if-
- (a) the representative-
    - (i). no longer satisfies the qualifications contemplated in section 28(1); or
    - (ii). resigns as a *health* and safety representative; or
  - (b) so required in writing on the grounds that the representative has not properly performed the functions of a *health* and safety representative by-
    - (i). at least 50% of the *employee* representatives on the *health* and safety committee; or
    - (ii). at least 50% of the employees who work on the same shift at the designated *working place* as the *health* and safety representative.
- (2) A full-time *health* and safety representative must vacate office on expiry of that representative's period of office or if-
- (a) the representative-
    - (i). no longer satisfies the qualifications contemplated in section 28(2); or
    - (ii). resigns as full-time *health* and safety representative; or
  - (b) so required in writing on the grounds that the representative has not properly performed the functions of a full-time *health* and safety representative by-
    - (i). at least 50% of the *employee* representatives on the *health* and safety committee; or
    - (ii). at least 50% of the employees.
- (3) The manager must within 7 days from the time when a *health* and safety representative must vacate office in terms of regulation 6.12(1) or (2), terminate the *health* and safety representative's appointment and in writing notify the *health* and safety representative of it.
- (4) A vacancy contemplated in regulation 6.12(1) or (2) must be filled by a *health* and safety representative elected in a by-election held in terms of regulation 6.7 or 6.8, as the case may be.
- (5) An *employee* representative on a *health* and safety committee must vacate office on the committee on expiry of such representative's period of office of it [sic] that representative-

- (a) is removed from office by a majority vote of *employee* representatives on the *health* and safety committee on grounds that the representative has not properly performed the functions of an *employee* representative on the *health* and safety committee; or
  - (b) resigns as *employee* representative on the *health* and safety committee.
- (6) A vacancy contemplated in regulation 6.12(5) must be filled by an *employee* appointed in terms of regulation 6.10.

## CHAPTER 7

### INSPECTORATE OF MINE HEALTH AND SAFETY

[Chapter 7 promulgated by GN R93 of 1997 and substituted by GN R846 of 1997.]

#### 7.1 Qualifications of inspectors

An officer must comply with the appointment requirements of the Personnel Administration Standard for the Occupational Class: Inspector: Mines or the Occupational Class: Inspector: Mining Machinery approved by the Public Service Commission read in conjunction with the Public Service Staff Code K.II/I to be appointed as an inspector on the establishment of the Mine Health and Safety Inspectorate.

#### 7.2 Authorisation certificate

- (1)
  - (a) The *Chief Inspector* must issue each inspector appointed in terms of section 49(1) with a certificate DME 34 signed by the *Chief Inspector*.
  - (b) The certificate which must include the names, identification number and a photograph of the Inspector, must indicate-
    - (i). the position in which the inspector is employed; and
    - (ii). that the inspector may, in terms of section 50(1), enter any mine for the purposes of monitoring or enforcing compliance with *this Act*.
- (2)
  - (a) The *Chief Inspector* must issue each person authorised under section 49(4)(b) with a letter of authorisation and a certificate DME 35 signed by the *Chief Inspector*.
  - (b) The letter of authorisation must include-
    - (i). the names of the person;
    - (ii). the functions to be performed by the person;
    - (iii). the area in which the functions will be performed; and
    - (iv). the period for which the person is authorised.

- (c) The certificate, which must include the names, identification number and a photograph of the authorised person, must indicate that the person
  - (i). is appointed to perform the functions of an inspector as indicated in the letter of authorisation; and
  - (ii). may in terms of section 50, enter any mine to perform such functions.
- (3) Every inspector appointed or person authorised under section 49(1) or 49(4) as the case may be, must at all times when entering, or performing any function at any mine
  - (a) carry on their person, certificates DME 34 and 35 and the letter of authorisation issued in terms of regulation 7.2(2), as the case may be; and
  - (b) must show such certificate and letter to the manager of the mine or the person in charge of any *working place* at the mine, if requested to do so.
- (4)
  - (a) Despite regulations 7.2(1) to (3) the **Principal Inspector of Mines** may issue a letter signed by the **Principal Inspector of Mines** to any inspector appointed or person authorised under section 49(1) or 49(4), as the case may be, who for any reason is not in possession of a certificate DME 34 or 35.
  - (b) The letter issued under regulation 7.2(4)(a) must include the names of the inspector or person and the official stamp of the office of the Principal Inspector of Mines and must state that the inspector or person is duly appointed or authorised under section 49(1) or 49(4), as the case may be.
  - (c) Regulation 7.2(3) is applicable to a letter issued under regulation 7.2(4).
- (5) A certificate DME 34 or 35 or a letter contemplated in regulation 7.2(4) is deemed to be adequate proof of an appointment or authorisation under section 49(1) or 49(4), as the case may be.

## CHAPTER 8

### MACHINERY AND EQUIPMENT

[Chapter 8 amended by GNR.896 of 25 August 2017.]

#### 8.1 Air Compressors

- (1) The *employer* must ensure, in the case of air compressors with a free delivery in excess of 0,15 cubic metres per second and where compression takes place in the presence of lubricating oil, that the compressor is fitted with automatic means of limiting the operating temperature and pressure of the compressor to a safe level.

[Regulation 8.1.1 inserted by GNR.1579 of 2002.]

## **8.2 Underground Railbound Transport**

The *employer* must take reasonable measures to ensure that:

- (1) the braking system of every locomotive or train is capable of stopping the locomotive or train within a safe distance under all operating conditions;
- (2) the braking system of every locomotive has passed a dynamic type test under full load conditions, before being used for the first time and after any brake design modifications;
- (3) the braking system of every locomotive has passed a static test before the locomotive is put into use at the commencement of each shift, after repairs and after adjustments;
- (4) a system is in place to alert persons to the presence and direction of travel of any locomotive or train;
- (5) a system is in place to assist the driver or operator of a locomotive or train to travel at a safe speed;
- (6) any rolling stock used for the transportation of persons is approved, by a competent person and is operated and maintained safely;
- (7) a system is in place that is capable of preventing any **locomotive** or **train** from inadvertently being set in motion.

[Regulation 8.2 inserted GNR.583 of 2004. The regulations shall not be applicable to underground endless rope haulage installations, monorail installations, chairlift installations, overhead cranes and crawls, railbound equipment used in shafts, winders and raises, lifting machines, stackers and reclaimers.]

## **8.3 No person may board or alight from a **locomotive** or **train** while it is in motion.**

[Regulation 8.2 inserted GNR.583 of 2004. The regulations shall not be applicable to underground endless rope haulage installations, monorail installations, chairlift installations, overhead cranes and crawls, railbound equipment used in shafts, winders and raises, lifting machines, stackers and reclaimers.]

#### **8.4 Scraper Winch and Mono-Rope Installation**

- (1) The *employer*, at every *mine* where scraper-winches or mono-rope winches are operated, must take reasonable measures to prevent persons from being injured as a result of-
  - (a) any person coming into contact with any moving part of a scraper winch or mono-rope winch installation or any equipment attached thereto; and
  - (b) the scraper winch or mono-rope winch installation being unsafe.
- (2) The measures to be taken by the *employer* in terms of regulation 8.4(1) must include measures to ensure that-
  - (a) scraper-winches and mono-rope winches are only operated by competent persons authorised by the *employer* to do so;
  - (b) the scraper winch or mono-rope winch is not operated until it is examined and declared safe to operate by a person authorised to do so by the *employer*;
  - (c) means are provided to forewarn persons of the intention to commence operating any scraper-winch or mono-rope winch;
  - (d) means are provided for persons to signal to the operator, from any access point to the installation, to shut down the operation of the scraper winch or mono-rope winch installation;
  - (e) scraper winch and mono-rope winch ropes, scraper attachments and rope splicing are regularly inspected;
  - (f) the scraper winch ropes are always underlay;
  - (g) a written procedure is prepared and implemented for the installation of the winch system, covering at least-
    - (i). the requirements of scraper and mono-winches foundations and installations;
    - (ii). the crossover and anti-fouling arrangements of ropes from two or more winches;
    - (iii). illumination of the moving parts of any winch so that they can be identified by persons;
    - (iv). appropriate sheave and return pulley anchor and rigging arrangements, including the use of safety slings;
    - (v). measures to ensure that winch ropes are used within the design capacity;
    - (vi). winch starter box location to ensure ease of operation by the operator; and
    - (vii). the moving and transport of winches from one location to another.

[Reg. 8.4 inserted by GNR.1225 of 2005.]

## 8.5 Lifting Equipment Regulations

### Definitions

For purposes of regulation 8.5, unless the context otherwise indicates-

**'Lifting equipment,'** means any equipment or machine or arrangement of equipment or machines intended or used for the lifting, lowering, suspension, or moving in suspension of any person or load.

**'Lifting tackle,'** means any attachment, including anchoring points, used to secure lifting equipment or a load to lifting equipment.

- (1) The *employer* must take reasonable measures to ensure that no person is injured due to the failure of any lifting equipment or lifting tackle as a result of-
  - (a) incorrect design for the intended application;
  - (b) incorrect installation; or
  - (c) insufficient maintenance.
- (2) The *employer* must take reasonable measures to ensure that the installation, use (including the transport of persons), maintenance, inspection, testing and keeping of records of lifting equipment and lifting tackle are done in accordance with a written operating procedure prepared and implemented for that purpose.
- (3) The *employer* must take *reasonably practicable* measures to ensure that-
  - (a) only lifting equipment and lifting tackle with a minimum factor of safety of four (4) is used;
  - (b) lifting equipment and lifting tackle are not used beyond their design capacity; and
  - (c) the safe working load of any lifting equipment and lifting tackle is conspicuously and clearly marked or indicated thereon.
- (4) Notwithstanding regulation 8.5(2), the *employer* must take *reasonably practicable* measures to ensure that the following lifting tackle has a minimum factor of safety of-
  - (a) ten (10) for natural fibre ropes;
  - (b) six (6) for steel wire ropes, man-made fibre ropes and textile webbing; and
  - (c) four (4) for high tensile steel chains.
- (5) The *employer* must take reasonable measures to ensure that only persons authorised in writing by the *employer* to do so, operate lifting equipment and lifting tackle.

- (6) The *employer* must take *reasonably practicable* measures to ensure that the lifting equipment used at the mine is designed and manufactured in accordance with an appropriate standard.

[Reg. 8.5(6) amended by Reg. 1 of GNR.90 of 2008.]

- (7) The following regulations promulgated under Minerals Act, 1991 (Act 50 of 1991) in force in terms of item 4 of Schedule 4 of the Act, are hereby repealed-

<b>Chapter 6</b>	<b>Chapter 16</b>	<b>Chapter 19</b>
6.1.1	16.98	19.1
6.1.2	16.98.1	19.2.1
6.1.3	16.98.2	19.2.2
6.2.1	16.98.3	19.3.1
6.2.2	16.98.4	19.3.2
6.2.3	16.98.5	19.3.3
6.2.4.	16.99	19.3.4
6.2.5	16.100	19.4
6.3.1	16.101	19.5
6.3.2	16.102	19.6
6.3.2.1	16.103	
6.3.2.6	16.103.1	
6.3.2.7	16.103.2	
6.3.2.8	16.104	
6.3.2.12		
6.3.3.1		
6.3.3.2		
6.3.3.3		
6.3.3.4		
6.3.3.5		
6.3.3.6		
6.9		
6.11		

[Reg. 8.5 inserted by GNR.1225 of 2005 and Reg. 8.5(7) deleted and substituted by Reg. 2 of GNR.90 of 2008]

## 8.6 Fans

### Definitions

For purposes of regulation 8.6, unless the context otherwise indicates-

**'booster fan'** means a fan installed underground in the main air stream or in a split of the main air stream to assist the main fan to increase airflow and/or overcome resistance through a section of a mine.

**'main fan'** means a fan that controls the entire air flow of a mine, or the airflow of one or more of the major air circuits.

- (1) The *employer* must take reasonable measures to ensure that combustible materials, explosives or natural vegetation are not located so near to fan installations and its switch-gear used for underground ventilation, that if such combustible materials, explosives or natural vegetation catch fire, there is a significant risk to the supply of clean air to any underground *working place* as a result of-
  - (a) the fan installation or its switch-gear being damaged; or
  - (b) smoke or fumes being drawn into any *working place*.
- (2) The *employer* must ensure, where a significant risk of an explosion of flammable gas or coal dust exists, that measures are in place to ensure that there is always a supply of clean air to all underground working places. Such measures must include-
  - (a) installing the main fan on surface;
  - (b) providing an effective means of protecting the main fan against damage caused by explosion;
  - (c) ensuring the main fan is readily accessible to effect emergency repairs; and
  - (d) having a back up system in place to provide clean air should the main fan become inoperative.
- (3) The *employer* must ensure, as far as *reasonably practicable*, that every main fan is provided with-
  - (a) an automatic means of alerting a responsible person should it stop or cease to operate;
  - (b) an effective means of giving early warning of defective operation;
  - (c) a power supply from two different sources or networks, which can include an emergency supply alternator / generator, for power supply in the event of an interruption to the normal power supply; and
  - (d) an effective means for safe entrance to and exit (escape) from the main fan housing.

- (4) The *employer* must take reasonable measures to ensure that a competent person examines every main and booster fan for effective operation, internally and externally, together with all appurtenant components that are necessary for the operation of the fan, at intervals not exceeding three months, or any other lesser interval determined by the mine's hazard identification and risk assessment in terms of section 11.
- (5) The *employer* must keep records of all examinations conducted in terms of regulation 8.6(4), including remedial measures taken, for a period of at least the most recent ten years of the fan installation.
- (6) The *employer* must take reasonable measures to ensure that all main and booster fans are installed, operated and maintained in accordance with a written procedure prepared and implemented for that purpose.

[Reg. 8.6 inserted by GN.911 of 2006.]

## **8.7 Refrigeration and Air-Conditioning Installations**

- (1) The *employer* must take reasonable measures to ensure that all refrigeration or air-conditioning installations at the mine comply with the requirements of the South African Bureau of Standards Code of Practice - SANS 10147, 'Refrigerating systems including plants associated with air-condition systems' (2002: 4th ed) with respect to its safety, construction, erection, operation, inspection and testing.
- (2) The *employer* must take reasonable measures to ensure that a competent person examines and operationally tests the entire refrigeration system as contemplated in SANS 10147, excluding pressure relief devices, at least once every 3 (three) months.
- (3) Regulation 8.7(1) and 8.7(2) do not apply to any-
  - (a) household refrigerator;
  - (b) water cooler or similar equipment that contains less than 1 kg of refrigerant;
  - (c) unit type display counter or any commercial refrigerator that contains less than 15 kg of a group 1 refrigerant; and
  - (d) refrigeration plant that requires a prime mover of less than 10 kW or less.
- (4) Despite Regulation 8.7(3) the clauses in SANS 10147 that refer to the Montreal Protocol apply to all air-conditioning and refrigeration equipment.
- (5) The normative references in the above standard of SANS 10147 are not applicable to the *employer*.

- (6) The following regulations made under the Minerals Act, 1991 (Act No. 50 of 1991) in force in terms of Schedule 4 of the Act are hereby repealed-

<b>Chapter 10</b>	<b>Chapter 23</b>
10.13	23.15.1
10.13.1	23.15.2
10.13.2	23.15.3
10.13.3	23.15.4
10.13.4	23.15.5
10.14	23.15.6
10.14.1	23.15.7
10.14.2	23.15.8
10.14.3	23.15.9
	23.15.11
	23.15.12
	23.15.13
	23.15.14
	23.15.15
	23.15.16

[Reg. 8.7 inserted by GN.911 of 2006.]

## **8.8 General Machinery Regulations**

- (1) The *employer* must take *reasonably practicable* measures to prevent persons from being injured as a result of them, the clothes being worn by them or any equipment being held by them coming into contact with or being drawn into any moving part of any machine.
- (2) The *employer* must take *reasonably practicable* measures to prevent persons from being injured because of any machinery failing as a result of-
  - (a) incorrect design;
  - (b) incorrect installation;
  - (c) poor maintenance; or

- (d) incorrect use or non-compliance with proper operating or safety procedures.
- (3) The measures to be taken by the *employer* in terms of regulation 1 must include measures to ensure that-
- (a) only persons authorised by the *employer* to do so, start, operate and maintain any machine where such starting, operation or maintenance may pose a significant risk to any person;
  - (b) where the moving of machinery may pose a significant risk to any person, such machinery is only moved under the constant supervision of a competent person who is fully aware of the risks attached to such moving of the machinery;
  - (c) only persons authorised by the *employer* to do so enter any area where machinery is operated, where such operation may pose a significant risk to any person;
  - (d) machinery is only operated if all installed safety devices are operational and functional;
  - (e) persons in close proximity to moving parts of machinery do not wear or are not permitted to wear clothing or anything else that can be caught in such moving parts;
  - (f) where the unexpected moving of any machinery or any part of any machinery could pose a significant risk to any person, appropriate pre-start warning devices, such as audible warning devices, the delay time must be determined by risk assessment with a minimum of a ten second time delay, are fitted to such machinery and used to warn persons that such machinery is about to be set in motion;
  - (g) here there could be a significant risk to any person working on any machinery due to the release from such machine of any mechanical, electrical, hydraulic, chemical or other source of energy, a written lockout procedure is prepared and implemented to ensure that such source of energy is effectively locked out and de-energised before any person works on such machinery;
  - (h) access scaffolding is erected, used, maintained and dismantled safely and in accordance with SANS Standard 10085-1:2004 'The design, erection, use and inspection of access scaffolding';
  - (i) means are provided, on or in close proximity to any machine, to immediately remove the source of power to that machine in case of an emergency;
  - (j) where the starting of machines are interlocked, no unintended starting of any of those machines can take place;
  - (k) starting devices are so arranged that no accidental starting of machinery can take place; and

- (I) all electrical, pneumatic and hydraulic portable equipment are operated and maintained in a safe working order.
- (4) The measures to be taken by the *employer* to prevent any person from coming into contact with any moving part of machinery or any equipment attached thereto, must include-
  - (a) effective physical barriers at the machinery such as screening, guarding or fencing; or
  - (b) failsafe electric or electronic barriers interlocked with the machinery in such a way that the machinery would be stopped before persons come into contact with moving machinery or parts thereof; or
  - (c) effective barriers at a safe distance away from any machinery.
- (5) The *employer* must take *reasonably practicable* measures to ensure that-
  - (a) When a compression ignition engine system is found to have any defect which may cause a significant risk to the safety or *health* of persons, the use of such engine system is discontinued immediately;
  - (b) all services, maintenance and repairs to diesel-powered equipment are performed by a competent person;
  - (c) all areas where diesel fuel is stored and where fuelling is carried out are clearly marked and that measures are in place to prevent spillage, contamination and fire, including that-
    - (i). diesel engine fuel is delivered underground in such a way that no spillage takes place during delivery;
    - (ii). when fuel is piped underground fuel delivery pipes are drained each time after use;
    - (iii). fuel is stored underground only in non-flammable robust containers which do not leak; and
    - (iv). the quantity of fuel stored underground is limited to 3 (three) days' estimated consumption.
- (6) The *employer* must take *reasonably practicable* measures to ensure that every mobile diesel engine powered unit, when not in use, is kept at a location that is sufficiently ventilated to prevent a build up of diesel fumes in the air at that location sufficient to cause a significant risk when starting up that engine.
- (7) The *employer* must take *reasonably practicable* measures to ensure that all areas where diesel fuel is stored are clearly indicated on the mine's rescue plan contemplated in regulation 17(19).

[Reg. 8.8 inserted by GNR.93 of 2008.]

## 8.9 Conveyor belt

### Definitions

For purposes of regulation 8.9, unless the context otherwise indicates-

**'conveyor belt installation'** means a mechanical system used for the transportation of minerals, material, or persons on a belt;

**'designated sections'** means the drive section, take up tension section, snub pulley sections, transfer point sections and tail pulley sections;

[Definition of 'designated sections' inserted by GNR.622 of 2013.]

**'power supply'** means any energy source feeding the drive motor of a conveyor belt installation;

(1) In compliance with regulation 8.8(1) the *employer* must ensure that-

(a) the designated sections of a conveyor belt installation are to be guarded, as per regulation 8.8(4) and not cleaned when any of its parts are in motion; provided that washing with pressurised water from a safe distance outside the guarded area may be carried out, subject to regulation 8.9(1)(i);

[Para. 8.9(1)(a) substituted by GNR.622 of 2013.]

(b) the power supply and all sources of stored energy of a stationary conveyor belt installation are isolated, made safe and locked-out during either repairs, maintenance or cleaning of spillage in the designated sections; provided that the alignment and training of a conveyor belt installation may be carried out whilst the belt is in motion subject to it being carried out in accordance with a procedure prepared and implemented for this purpose;

[Para. 8.9(1)(b) substituted by GNR.622 of 2013.]

(c) the driving machinery of the conveyor belt installation can be stopped by any person from any point along its length where access to the belt is possible;

(d) the driving machinery of the conveyor belt installation is stopped should the belt break, jam or slip excessively;

(e) persons are prevented from entering any side of a conveyor belt installation, unless means have been provided to do so safely;

[Para. 8.9(1)(e) substituted by GNR.622 of 2013.]

- (f) one or more devices are fitted and used to give all persons at any point where access to the conveyer belt installation is possible sufficient prior warning for a period to be determined by the mines risk assessment with a minimum period of 10 seconds that any part of such a conveyer belt installation is about to be put into motion;
- (g) the take up or belt tensioning device will not move when repairs, routine cleaning, cleaning of spillage, maintenance at the belt tensioning device or belt splicing is carried out;

[Para. 8.9(1)(g) substituted by GNR.622 of 2013.]

- (h) where two or more conveyor belt installations are used in series, sequence interlocking is provided which automatically will, except when approved maintenance specific procedures are carried out that require an independent conveyor test run-
  - (aa) stop all conveyor belt installations feeding a conveyor belt installation that has stopped; and
  - (bb) prevent a conveyor belt installation from starting until the conveyor belt installation onto which it feeds is running;

[Para. 8.9(1)(h) substituted by GNR.622 of 2013.]

- (i) Only persons authorised to do so by the *employer* operate, maintain, clean and repair a conveyor belt installation; and provided that any routine cleaning outside the designated sections of the conveyor section of the belt is carried out in accordance with a procedure prepared and implemented for this purpose;

[Para. 8.9(1)(i) substituted by GNR.622 of 2013.]

- (j) the belt of any conveyor belt installation is installed in such a way that no uncontrolled run away can occur; and

[Para. 8.9(1)(j) substituted by GNR.622 of 2013.]

- (k) the overall structural design of every conveyor belt installation is approved by a competent person.

- (2) The *employer* must take *reasonably practicable* measures to prevent persons from being injured by material or mineral falling from a conveyor belt installation, which measures must include the fitting and use of one or more devices to prevent run-back or run-on when such conveyor belt installation is stopped.

[Sub-reg. (2) previously (3), renumbered and substituted by GNR.622 of 2013.]

- (3) The *employer* must take *reasonably practicable* measures to prevent persons from being exposed to flames, fumes or smoke arising from a conveyor belt installation catching fire, including instituting measures to prevent, detect and combat such fires.

[Sub-reg. (3) previously (4), renumbered and substituted by GNR.622 of 2013.]

- (4) The *employer* must take *reasonably practicable* measures to prevent persons from being injured as a result of the breaking, misalignment or damage of conveyor belting due to any mineral, material or coal dust accumulating on or around the moving parts of any conveyor belt installation.

[Sub-reg. (4) previously (5), renumbered and substituted by GNR.622 of 2013.]

- (5) The *employer* must take *reasonably practicable* measures to prevent persons at or near conveyor belt installations from being injured due to lightning directly or indirectly striking the installation.

[Sub-reg. (5) previously (6), renumbered and substituted by GNR.622 of 2013.]

- (6) The *employer* must take *reasonably practicable* measures to ensure that the use, operation and inspection of man-riding conveyors comply with SANS 10266: 2006 - Edition 1 'The safe use, operation and inspection of man-riding belt conveyors in mines'.

[Sub-reg. (6) previously (7), renumbered and substituted by GNR.622 of 2013.]

- (7) The normative references in SANS 10266: 2006 are not applicable to the *employer*.

[Sub-reg. (7) previously (8), renumbered and substituted by GNR.622 of 2013.]

- (8) The *employer* must take reasonable measures to ensure that the functionality of the devices contemplated in regulation 8.9(1)(c) and (f) and of any other safety devices relating to the conveyor belt installation are tested-
- (a) once a week not exceeding ten days, where such devices are in the designated sections;
  - (b) every three months where such devices are outside of the designated sections; and
  - (c) immediately after any belt extension or shortening thereof has taken place.

[Sub-reg. (8) previously (9), renumbered and substituted by GNR.622 of 2013.]

- (9) The *employer* must ensure that a written procedure is prepared and implemented for conveyor belt splicing, joining and repairing and for the safe use of chemicals during such splicing, joining and repairing.

[Reg. 8.9 inserted by GNR.93 of 2008 and Sub-reg. (9) previously (10), renumbered and substituted by GNR.622 of 2013.]

[Chapter 8 inserted by GNR.1579 of 2002.]

## **8.10 Trackless Mobile Machinery**

### **Definitions**

For purposes of regulation 8.10, unless the context otherwise indicates-

**'Braking System'** means a device or combination of devices capable of reducing the speed of a **trackless mobile machine** to a standstill;

**'Combined Braking Systems'** means a braking system consisting of a service brake and at least one of the following: either a park brake or an emergency brake;

**'Emergency Brake'** means an easily accessible device, which when applied, will bring the trackless mobile machine to a standstill under all operating and emergency conditions;

**'Fail to Safe'** means so designed as to activate and effectively perform its intended function without harm to persons and without human intervention;

**'Park Brake'** means a brake capable of holding fully loaded, parked trackless mobile machine stationary, at the maximum safe operating gradient, without the support of any other braking system;

**'Remote Controlled'** means the control and operation of a trackless mobile machine by an operator, by means of a wireless remote control device or a remote control device by means of a cable system, where the operator has direct physical sight of the trackless mobile machine;

**'Service Brake'** means the primary operating brake capable of retarding and stopping the fully loaded trackless mobile machine;

**'Static Test'** means a test carried out to determine the compliance of the brake holding power of a trackless mobile machine measured against the design specification or an appropriate safety standard;

**'Trackless Mobile Machine'** means any self-propelled mobile machine that is used for the purpose of performing mining, transport or associated operations underground or on surface at a mine and is mobile by virtue of its movement on wheels, skids, tracks, mechanical shoes or any other device fitted to the machine, but excludes rail bound equipment, scraper winches, mono rail installations, static winches, draglines, winding machinery installations, track mounted conveyors and any equipment attached thereto;

**'Trailer'** means any vehicle that is not self-propelled and needs to be towed by a trackless mobile machine by design.

## Regulations

### Collisions between trackless mobile machines and pedestrians

#### 8.10.

- (1) The *employer* must take *reasonably practicable* measures to ensure that pedestrians are prevented from being injured as a result of collisions between trackless mobile machines and pedestrians. At any mine where there is a significant risk of such collisions, such measures must include at least the following:
  - (1.1) All electrically or battery powered trackless mobile machines, excluding shovels, bucket wheel excavators and overburden drills, must be provided with means to automatically detect the presence of any pedestrian within its vicinity. Upon detecting the presence of a pedestrian, the operator of the trackless mobile machine and the pedestrian must be warned of each other's presence by means of an effective warning. In the event where no action is taken to prevent potential collision, further means must be provided to retard the trackless mobile machine to a safe speed whereafter the brakes of the trackless mobile machine are automatically applied without human intervention.
  - (1.2) All underground diesel powered trackless mobile machines must be provided with means:
    - (a) to automatically detect the presence of any pedestrian within its vicinity. Upon detecting the presence of a pedestrian, the operator of the diesel powered trackless mobile machine and the pedestrian shall be warned of each other's presence by means of an effective warning; and
    - (b) in the event where no action is taken to prevent potential collision, further means shall be provided to retard the diesel powered trackless mobile machine to a safe speed whereafter the brakes of the diesel powered trackless mobile machine are automatically applied. The prevent potential collision system on the diesel powered trackless mobile machine must fail to safe without human intervention.

[Reg. 8.10.1.2(b) added by GNR.125 of 2015.]

### Collisions between diesel powered trackless mobile machines

- (2) The *employer* must take *reasonably practicable* measures to ensure that persons are prevented from being injured as a result of collisions between diesel powered trackless mobile machines. At any opencast or open pit mine where there is a significant risk of such collisions, such measures must include:

- (2.1). Every diesel powered trackless mobile machine must be provided with means to automatically detect the presence of any other diesel powered trackless mobile machine within its vicinity; and
- (a) upon detecting the presence of another diesel powered trackless mobile machine, the operators of both diesel powered trackless mobile machines shall be warned of each other's presence by means of an effective warning; and
  - (b) in the event where no action is taken to prevent potential collision, further means shall be provided to retard the diesel powered trackless mobile machine to a safe speed where after the brakes of the diesel powered trackless mobile machine are automatically applied. The prevent potential collision system on the diesel powered trackless mobile machine must 'fail to safe' without human intervention.

[Reg. 8.10.2.1(b) added by GN R125 of 2015.]

#### **Collisions between trackless mobile machines and rail bound equipment**

- (2.2). The *employer* must take *reasonably practicable* measures to ensure that persons are prevented from being injured as a result of collisions between trackless mobile machines and rail bound equipment. At underground operations where there is a significant risk of such collisions, such measures must include warning the operators of the trackless mobile machine and the locomotive of each other's presence by means of an effective warning.

#### **Trackless mobile machines running uncontrolled**

- (3) The *employer* must take *reasonably practicable* measures to prevent trackless mobile machines running uncontrolled.

#### **Overturning of any trackless mobile machine**

- (4) The *employer* must take *reasonably practicable* measures to ensure that persons are prevented from being injured as a result of overturning of any trackless mobile machine. Roll overprotection structures must be fitted on trackless mobile machines if required in terms of the mine's risk assessment.

#### **Objects falling onto operators and/or passengers of trackless mobile machines**

- (5) The *employer* must take *reasonably practicable* measures to ensure that persons are prevented from being injured as a result of objects falling onto operators and/or passengers of trackless mobile machines. Trackless mobile machines must be fitted with falling object protection structures to protect operators and passengers from falling objects if required in terms of the mine's risk assessment.

**Persons inadvertently falling out of or being ejected from trackless mobile machines**

- (6) The *employer* must take *reasonably practicable* measures to ensure that persons are prevented from being injured as a result of operators and/or passengers inadvertently falling out of or being ejected from any trackless mobile machine in motion.

**Braking systems**

- (7) The *employer* must take *reasonably practicable* measures to ensure that persons are prevented from being injured as a result of brake failure. Such measures must include ensuring:
- (7.1). that trackless mobile machines are operated with adequate and effective braking systems;
  - (7.2). all braking systems are adequately and routinely tested for intended functionality;
  - (7.3). all braking systems are regularly maintained; and
  - (7.4). that where a combined braking system is used, the design of the braking system is such that it complies with the requirements for the separate systems and that it fails safe.

**Restricted operator visibility**

- (8) The *employer* must take *reasonably practicable* measures to ensure that persons are prevented from being injured as a result of restricted operator visibility.

**Fatigue while operating a trackless mobile machine**

- (9) The *employer* must take *reasonably practicable* measures to ensure that persons are prevented from being injured as a result of fatigue of operators. Such measures must include a fatigue management procedure for operators.

**Battery charging facilities**

- (10) The *employer* must take *reasonably practicable* measures to ensure that battery charging facilities are economically designed, constructed and equipped with the following:
- (i). Adequate through ventilation;
  - (ii). (Adequate fire suppression equipment;
  - (iii). (Effective provisions to treat persons in the event of acid spillage; and
  - (iv). Appropriate and adequate lighting.

### **Diesel refuelling facilities**

- (11) The *employer* must take *reasonably practicable* measures to ensure that diesel refuelling facilities are ergonomically designed, constructed and equipped with the following:
- (i). Adequate through ventilation;
  - (ii). Adequate fire suppression equipment;
  - (iii). Effective provisions to cater for oil and diesel spillages; and
  - (iv). Appropriate and adequate lighting.
- (v). Surface diesel refuelling facilities are in accordance with:
- (a) SANS 10089-1 (2008): The petroleum industry Part 1: Storage and distribution of petroleum products in above-ground bulk installations.
  - (b) SANS 10089-2 (2007): The petroleum industry Part 2: Electrical and other installations in the distribution and marketing sector.
  - (c) SANS 10089-3 (2010): The petroleum industry Part 3: The installation, modification, and decommissioning of underground storage tanks, pumps/dispensers and pipe work at service stations and consumer installations.

### **Wheels, tyres and rims**

- (12) The *employer* must take *reasonably practicable* measures to ensure that procedures are prepared and implemented to prevent persons from being injured as a result of the use, storage and handling of wheels, tyres and rims.

### **Access of persons to and from the trackless mobile machines**

- (13) The *employer* must take *reasonably practicable* measures to ensure that trackless mobile machines are designed, constructed and maintained such that persons getting on and off, or working on them can do so safely.

### **Visibility of trackless mobile machines, skid mounted machinery and trailers to persons**

- (14) The *employer* must take *reasonably practicable* measures to ensure that trackless mobile machines, skid mounted machinery and trailers are visible to persons in their vicinity.

### **Unauthorised access to or operation of trackless mobile machines**

- (15) The *employer* must take *reasonably practicable* measures to ensure that unauthorised persons do not ride on or operate trackless mobile machines.

### **Isolation and lock-out of trackless mobile machines**

- (16) The *employer* must take *reasonably practicable* measures to ensure that procedures are prepared and implemented for the safe isolation and lockout of trackless mobile machines.

### **Operating procedures**

- (17) The *employer* must take *reasonably practicable* measures to ensure that procedures are prepared and implemented for the safe operation of trackless mobile machines.

### **Maintenance standards and procedures**

- (18) The *employer* must take *reasonably practicable* measures to ensure that procedures and standards are prepared and implemented for maintaining trackless mobile machines in a safe operating condition.

### **Remote and remotely controlled trackless mobile machines**

- (19) The *employer* must take *reasonably practicable* measures to ensure that remote control devices for trackless mobile machines using a wireless remote control device comply with:
- (a) SANS 61000-4-2 (IEC 61000-4-2) Electrostatic immunity discharge test;
  - (b) SANS 61000-4-3 (IEC 61000-4-3) Radiated, radio frequency, electromagnetic field immunity test;
  - (c) SANS 61000-4-4 (IEC 61000-4-4) Electrical fast transient/burst immunity test;
  - (d) SANS 61000-4-5 (IEC 61000-4-5) Surge immunity test;
  - (e) SANS 61000-4-6 (IEC 61000-4-6) Immunity to conducted disturbances, induced by radio-frequency fields;
  - (f) SANS 61000-4-8 (IEC 61000-4-8) Power frequency magnetic field immunity test; and
  - (g) SANS 61000-4-11 (IEC 61000-4-11) Voltage dips, short interruptions and voltage variations immunity test.

### **Trailers**

- (20) The *employer* must take *reasonably practicable* measures to ensure that:
- (a) the design and construction of any trailer is in accordance with specifications approved by a competent person, which specifications must take into account the intended use of the trailer;
  - (b) the design and construction of trailer coupling and uncoupling mechanisms is such that coupling and uncoupling can be done safely and that no inadvertent uncoupling of the trailer can take place; and
  - (c) procedures are prepared and implemented for the safe operation of trailers.

### **Towing and recovery of trackless mobile machines**

- (21) The *employer* must take *reasonably practicable* measures to ensure that procedures are prepared and implemented for the safe recovery and towing of trackless mobile machines.

### Roadway conditions

(22) The *employer* must take *reasonably practicable* measures to ensure that the design, construction and maintenance of roadways are appropriate for the type and category of trackless mobile machine.

### Selection, training, appointment and licensing of trackless mobile machine operators

(23) The *employer* must take *reasonably practicable* measures to ensure that procedures are prepared and implemented for the selection, training, appointment and licensing of trackless mobile machine operators, which procedures must include:

(23.1) physical and psychological pre-selection criteria;

(23.2) a training programme for trackless mobile machine operators, covering:

- (i). theoretical training in a training Centre;
- (ii). practical training; and
- (iii). on the job training.

(23.3) assessment of the trainee, on successful completion of the training programme, by a competent person;

(23.4) that only operators, assessed to be competent are authorised in writing by the responsible engineer to operate trackless mobile machines;

(23.5) that operators of trackless mobile machines are authorised in writing by their supervisor to operate trackless mobile machines. Such authorisation must detail their duties, responsibilities, limitations and areas of operation;

(23.6) when an operator has not operated a trackless mobile machine for a period of two years, such operator is re-assessed to be competent by a competent person prior to being issued with a new licence.

(23.7) that every operator of trackless mobile machines is issued with a licence containing at least the following:

- (i). a photograph to positively identify the operator;
- (ii). the trackless mobile machine types which the operator may operate;
- (iii). date of issue and expiry date; and
- (iv). the operator's company identification number.

### **Pre-use inspection procedures**

- (24) The *employer* must take *reasonably practicable* measures to ensure that procedures are prepared and implemented for inspecting trackless mobile machines immediately prior to use, which procedures must include:
- (24.1). that the operator of the trackless mobile machines physically inspects and ensures that the brakes, lights and any other defined safety features and devices are functioning as intended prior to setting such trackless mobile machines in motion;
  - (24.2). pre-use check lists that have to be completed by all operators of trackless mobile machines at the beginning of their shift. Such check lists must clearly identify all the components, features and functionalities to be inspected by the operator. For each component, feature or functionality, the check list must clearly indicate the pre-established criteria under which the trackless mobile machines may or may not be put in motion.

### **Reversing over the edge of a stockpile**

- (25) The *employer* must take *reasonably practicable* measures to prevent any trackless mobile machine reversing over the edge of a stockpile or dump.

### **Inadvertent movement of the trackless mobile machine**

- (26) The *employer* must take *reasonably practicable* measures to prevent inadvertent movement of any trackless mobile machine whilst parked.

### **Mandatory carrying of licence**

- (27) All operators of trackless mobile machines must have their originally issued licence on their person whilst operating any trackless mobile machine.

### **Certain regulations not applicable**

- (28) Regulations 8.10.23 and 8.10.27 do not apply to trackless mobile machines licensed under the National Road Transportation Act 2000 and not used for primary mining activities.

[Regulation 8.10 inserted by GNR.125 in Government Gazette 38493]

[Regulation 8.10 has commenced on 27 May 2015, except sub-regulations 8.10.1.2(b) and 8.10.2.1(b)]

## 8.11 Lifts

### Definitions

For purposes of regulation 8.11, unless the context otherwise indicates-

**'Lift'** means any installation used or intended to be used for the conveyance of persons, material, explosives or minerals by means of a car fitted with safety catches running on fixed solid guides and serving defined levels, where the control system of the driving machine is not normally operated manually from the motor or engine room;

**'Material'** means whatever may be conveyed by means of a winding plant, lift or self-propelled mobile machine, excluding persons, minerals and explosives;

**'Explosive'** means-

- (a) a substance, or mixture of substances, in a solid or liquid state, which is capable of producing an explosion;
- (b) a pyrotechnic substance in a solid or liquid state, or a mixture of such substances, designed to produce an effect by heat, light, sound, gas or smoke, or a combination of these, as the result of non detonative self-sustaining exothermic chemical reaction, including pyrotechnic substances which do not evolve gases;
- (c) any article or device containing one or more substances contemplated in paragraph (a); or
- (d) any other substance or article which the relevant Minister may from time to time by notice in the Gazette declare to be an explosive in terms of the Explosive Act, Act 15 of 2003;

**'Recoverable recordable system'** means any recordable system that will retain the data captured therein indefinitely and which-

- (a) captures the time and date of every entry, name and signature of every person making an entry;
- (b) allows for the retrieving of all data captured;
- (c) incorporates measures to prevent unauthorised changes to any captured data;
- (d) is auditable; and
- (e) in the case of an electronic system, is backed up at least weekly.

### Supervision by a competent person

- (1) The *employer* must take reasonable measures to ensure that lifts are installed, modified, operated and maintained under the supervision of a competent person.

### **Lift particulars to be sent to the Principal Inspector**

- (2) The *employer* must take reasonable measures to ensure that the Principal Inspector of Mines is notified:
  - (a) on form DMR 298 lift particulars prescribed in Chapter 21, of the required particulars of the lift prior to the commencement of:
    - (i). its installation;
    - (ii). major modifications to the lift as defined in the relevant standard referred to in regulation 8.11.5; or
    - (iii). its decommissioning, either after having been extended, relocated or not being used for a continuous period of six (6) months.
  - (b) In writing within 30 days if any lift has been decommissioned or has not been used for more than six (6) consecutive months.

### **Lift particulars to be available**

- (3) The *employer* must take reasonable measures to ensure that a copy of any notification contemplated in regulation 8.11.2 is kept readily available at the mine.

### **Permit issued prior to the enactment of these Regulations to be kept**

- (4) Any *employer*, using a lift for which a permit was issued by the Principal Inspector of Mines prior to enactment of these Regulations, must take reasonable measures to ensure that such permit is kept readily available at the mine.

### **Construction, installation and commissioning of lifts**

- (5) The *employer* must take reasonable measures to ensure that every lift is constructed, installed and commissioned in accordance with the following South African Bureau of Standards Specifications, where applicable:
  - (a) SANS 1545 - 1:2014 Safety rules for the construction and installation of lifts. Part 1 - Electric Lifts;
  - (b) SANS 1545 - 2:2009 Safety rules for the construction and installation of lifts. Part 2 - Hydraulic lifts;
  - (c) SANS 1545 - 5:2007 Safety rules for the construction and installation of lifts. Part 5 - Access goods only lifts;
  - (d) SANS 1545 - 6:2014 Safety rules for the construction and installation of lifts. Part 6 - Rack and Pinion lifts;
  - (e) SANS 4344:2004 Steel wire ropes for lifts-Minimum requirements;
  - (f) SANS 10360:2006 The maintenance and repair of electric and hydraulic powered lifts, escalators and passenger conveyors;
  - (g) SANS 50081-1:2004/EN 91-1:2004 Safety rules for the construction and installation of lifts Part 1: Electric lifts;
  - (h) SANS 50081-2:1998/EN 81-2:2000 Safety rules for the construction and installation of lifts Part 2: Hydraulic lifts;

- (i) SANS 50081-3:2005/EN 81-3:2000 Safety rules for the construction and installation of lifts Part 3: Electric and hydraulic service lifts; and
  - (j) SANS/ISO/TS 14798 2009 Lift (elevators), escalators and passenger conveyors- Risk analysis methodology.
- (6) The normative references in the SANS standards listed in 8.11.5 are not applicable to the **employer**.

#### **Examination and testing of lifts**

- (7) The **employer** must take reasonable measures to ensure that a written procedure is prepared by a competent person and implemented for the examination, testing, repair and maintenance of every lift. Such procedure must take into account:
  - (a) any original equipment manufacturer's recommendations;
  - (b) the relevant SANS standard; and
  - (c) the site specific risks identified in terms of the mine's risk assessment.
- (8) The procedure contemplated in regulation 8.11.7 must provide for at least the following:
  - (a) that a competent person examines and tests the entire lift installation at least once a month;
  - (b) that a competent person examines at least once a calendar week the lift installation, well, guides, ropes and rope attachments, the driving machinery, the drums, sheaves, all safety devices and appliances to identify any deterioration of the components;
  - (c) that records are kept readily available at the mine of the examinations carried out and of the competent persons who did the examinations; and
  - (d) that a recoverable recordable system is established and maintained at the mine in which is captured details of all maintenance, repairs, testing, inspections and examinations of the lift installation and of the findings, which must be captured by the competent person who undertook the maintenance, repairs, inspections or examinations within 24 hours from completion of such maintenance, repairs, inspections or examinations.
- (9) The **employer** must take reasonable measures to ensure:
  - (a) if as a result of examination, any weakness or defect is found which may pose a risk to the *health* or safety of any person, that the lift is not used until the defect has been rectified; and
  - (b) when a landing door or other gate is required to be open while a lift is being examined, serviced, or repaired or while any other work is being done in the hatchway, that an effective barrier is provided and used to prevent inadvertent access to the hatchway.

### **Operating procedure**

- (10) The **employer** must take reasonably practical measures to ensure that the simultaneous transportation of persons, equipment or material in a conveyance is carried out in accordance with an operating procedure prepared and implemented for that purpose.

### **Emergency preparedness**

- (11) The **employer** must take reasonable measures to ensure that an emergency preparedness procedure is drawn up, after consultation with the lift manufacturer, for the rescue of persons trapped in a car in a lift well.

### **Flooding of lift well**

- (12) The **employer** must take reasonable measures to ensure, where there is a risk of a lift well or shaft being flooded to a level that may pose a significant risk to persons travelling in the car, that measures are in place to prevent the car from entering any flooded area of the lift well or shaft.
- (13) The **employer** must take reasonable measures to ensure that any examination contemplated in regulation 8.11.8 is conducted in the presence of an Inspector if so requested in advance by the Principal Inspector of Mines.

[Reg. 8.11 substituted by GNR.1352 of 1998, repealed by GNR.1278 of 2006 and added by GNR.894 of 25 August 2017.]

## **8.12 Chairlifts**

### **Definitions**

For purposes of regulation 8.12, unless the context otherwise indicates-

- 'Chairlift'** means any appliance or combination of appliances, excluding endless rope haulages and monoropes, used or intended to be used for the conveyance of any load, including persons, by means of;
- (i). chairs or other means of conveyances suspended from an endless hauling rope; or
  - (ii). chairs or conveyances moved with a hauling rope or chain and running on a rope or in or on a rail circuit.

### **Supervision by a competent person**

- (1) The **employer** must take reasonable measures to ensure that the installation, modification, operation and maintenance of every chairlift is under the supervision of a competent person.

### **Chairlift Particulars to be sent to the Principal Inspector**

- (2) The **employer** must take reasonable measures to ensure that the Principal Inspector of Mines is notified:
- (2.1). on Form DMR 299 Chairlift particulars prescribed in Chapter 21, of the required particulars of every chairlift prior to commencement of:
    - (a) its installation;
    - (b) major modifications (as defined in SANS 273:2007 Edition 1 'The design, construction, maintenance and safe operation of chairlifts in mines') to it; or
    - (c) its recommissioning, either after having been extended, relocated or not being used for a continuous period of six (6) months.
  - (2.2). in writing within 30 days if any chairlift has been decommissioned or has not been used for more than six (6) consecutive months.

### **Chairlift Particulars available**

- (3) The **employer** must take reasonable measures to ensure that a copy of the notification as contemplated in regulation 8.12.2.1 is kept readily available at the mine and is also displayed where it can be seen by users of the chairlift.

### **Permit issued prior to enactment of these Regulations to be kept and displayed**

- (4) Any **employer**, using a chairlift for which a permit was issued by the Principal Inspector of Mines prior to enactment of these Regulations, must take reasonable measures to ensure that such permit is kept readily available at the mine and that a copy of it is displayed where it can be seen by users of the chairlift.

### **Construction, installation and testing of chairlifts**

- (5) The **employer** must take reasonable measures to ensure that every chairlift is constructed, installed, maintained and tested in accordance with SANS 273:2007 Edition 1 'The design, construction, maintenance and safe operation of chairlifts in mines'.
- (6) Any **employer** intending to install a chairlift of a design not covered by the scope of SANS 273:2007 Edition 1 may only do so with permission of the Chief Inspector of Mines and subject to such conditions as may be specified.
- (7) The normative references in the SANS standards in 8.12.6 are not applicable to the **employer**.

### **Examination and testing of chairlifts**

- (8) The **employer** must take reasonable measures to ensure that a written procedure is prepared by a competent person and implemented for the examination, testing and maintenance of every chairlift. Such procedure must take into account:
  - (a) any original equipment manufacturer's recommendations;
  - (b) SANS 273:2007 Edition 1 'Standard for the design, construction, maintenance and safe operation of chairlifts in mines'; and
  - (c) the site specific risks identified in terms of the mine's risk assessment.
- (9) The procedure contemplated in regulation 8.12.8 must provide for at least the following:
  - (a) that a competent person examines and tests the entire chairlift installation at least once a month;
  - (b) that the chairlift installation is functionally tested and examined at least once a week by a competent person(s);
  - (c) that if as a result of examination or test any weakness or defect is found which presents a significant risk to any person, the chairlift is not used until the defect has been rectified; and
  - (d) that a lock-out procedure is in place to remove the tension on the hauling rope before any repair or replacement on the drive system is undertaken.

### **Chairlift operation**

- (10) The **employer** must take reasonable measures to ensure that only a competent person(s) operates any chairlift and does so in accordance with a written procedure prepared and implemented for this purpose. Such procedure must cover at least the following:
  - (a) loading and unloading of persons and other loads;
  - (b) stopping and starting;
  - (c) investigation and reporting of malfunctioning and corrective measures to be taken;
  - (d) initial examination before commissioning; and
  - (e) emergency procedures for persons to disembark in case of a trip out.

### **Chairlift installation where other traffic exists**

- (11) The **employer** must take reasonable measures to ensure that, where a chairlift operates in the same excavation or close proximity to other traffic or moving equipment, a procedure is prepared and implemented to prevent persons from being injured by such traffic or moving equipment.

[Regulation 8.12 added by GNR.894 of 25 August 2017.]

## CHAPTER 9

### MINE ENVIRONMENTAL ENGINEERING AND OCCUPATIONAL HYGIENE

[Chapter 9 promulgated by GNR.904 of 2002 and Heading amended by GNR.907 of 2002.]

#### 9.1 Environmental Engineering

##### Use of Compressed Air

- (1) No person may use, or permit any person to use, compressed air:
  - (a) in such a manner that it might endanger the *health* or safety of any person;  
or
  - (b) to clean the body of any person or clothes being worn by any person.

##### Early Warning Systems

- (2) Where the risk assessment at the mine indicates a significant risk of a fire and/or explosion and/or toxic release, that could lead to an irrespirable atmosphere or an atmosphere immediately dangerous to life or *health*, the *employer* must provide an early warning system or systems at all working places.

##### Ventilation Control Devices

- (3) The *employer* must ensure that polymer underground ventilation control devices or appliances, which have the potential for electrical static discharge:
  - (a) comply with the SABS standard specifications 1287: Part I and Part II; and
  - (b) are of anti-static characteristics when used in working places where there is a risk of igniting gas, dust or vapour.

##### Working places where work has ceased

- (4) The *employer* must take *reasonably practicable* measures to ensure that no *employee* is exposed to any *health* hazard at, or emanating from, any *working place* where work has ceased, either temporarily or permanently.

#### 9.2 Occupational Hygiene

##### Occupational exposure to health hazards

- (1) The *employer* must ensure that the occupational exposure to *health* hazards of employees is maintained below the limits set out in Schedule 22.9(2)(a) and (b).

### **System of Occupational Hygiene Measurements**

- (2) The *employer* must establish and maintain a system of occupational hygiene measurements, as contemplated in section 12, of all working places where the following hazard limits prevail:

(a) airborne pollutants	-	particulates $\geq \frac{1}{10}$ of the occupational exposure limit;
	-	gases and vapours $\geq \frac{1}{2}$ of the occupational exposure limit;
(b) thermal stress	-	heat $>25.0^{\circ}\text{C}$ wet bulb and/or $>32.0^{\circ}\text{C}$ dry bulb and/or $>32.0^{\circ}\text{C}$ mean radiant temperature;
	-	cold $<10^{\circ}\text{C}$ equivalent chill temperature; and
(c) noise	-	$\geq 82\text{dBLAeq,8h}$ .

[Reference is made to the following Guidelines issued by the Chief Inspector of Mines in terms of section 9(2) of this Act-

- (i). Guideline for the Compilation of a Mandatory Code of Practice for an Occupational Health Programme on Personal Exposure to Airborne Pollutants: Ref. No. DME 16/3/2/4-A1
- (ii). Guideline for the Compilation of a Mandatory Code of Practice for an Occupational Health Programme on Personal Exposure to Thermal Stress Ref. No. DME 16/3/2/4-A2]

### **Report to Employer**

- (3) The competent person engaged by the *employer* in terms of section 12(1) must, as part of the compliance with section 12(2)(b), report to the *employer* on-
- (a) the occupational hygiene risk assessment, with specific reference to planning, design, implementation and management of occupational hygiene at the mine;
  - (b) the occupational hygiene hazards that may cause illness or adverse *health* effects to persons, assess the results in terms of the implementation of control systems and the management thereof, and recommend remedial actions to the *employer*.

### **Provision of potable and palatable water**

- (4) The *employer* must ensure that sufficient potable and palatable water, which comply with the requirements set out in Schedule 22.9(2)(c), is readily available to all employees and clearly identified as drinkable.

### **Provision and maintenance of ablution and change house facilities**

- (5) The *employer* must provide and maintain suitable and adequate:

- (a) change houses to enable employees who perform work involving hazardous substances to change into working clothes at the start of their shift and to wash themselves and change their clothes at the end of their shift;
- (b) facilities to enable employees who perform work involving hazardous substances to wash their hands and faces before eating any meals at work; and
- (c) readily available latrine facilities, within a reasonable distance from each *working place*.

### **Working Clothes**

- (6) No *employee* may remove clothes referred to in regulation 9.2(5)(a) from the mine unless such clothes have been decontaminated.

### **Report to Regional Principal Inspector**

- (7) The *employer* must submit to the regional principal inspector of mines, on forms 21.9(2)(a), 21.9(2)(b), 21.9(2)(c), 21.9(2)(d), 21.9.2(e) and 21.9.2(f) prescribed in chapter 21, and within 60 days from the end of the relevant reporting period as indicated on each form, reports which contain information on the airborne pollutant, thermal stress and noise aspects of the system of occupational hygiene measurements, established and maintained in terms of regulation 9.2(2).

[Reg. 9.2(7) amended by GNR.1226 of 2005]

### **Respiratory Protective Equipment**

- (8) The *employer* must ensure that all respiratory protective equipment used at a mine, other than body-worn self-contained self rescuers, comply with the South African bureau of Standards Code of Practice, Homologation of Respiratory equipment SABS 0338.

### **Illumination of Working Places**

- (9) The *employer* must ensure that the illumination at all working places is sufficient to enable employees, who have conformed with the requirements of the vision tests conducted in terms of the Guideline for the Minimum Standards of Fitness to Perform work at a Mine, to perform their work safely.

### **Repeal**

The following regulations made under the Minerals Act, 1991 (Act 50 of 1991) in force in terms of Schedule 4 of the Mine Health and Safety Act, 1996 (Act 29 of 1996) are hereby repealed.

CHAPTERS										
<b>2</b>	<b>4</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>		<b>15</b>	<b>24</b>	
2.10.7	4.2	6.3.2.4	7.2.2	8.4.2(c)	9.29	10.1.1	10.10.1	15.5.3	24.14.6	
2.10.8	4.3.1		7.3.1	8.5.1		10.1.2	10.10.2	15.2	24.20.4	
2.10.9	4.3.2			8.5.2		10.2.1	10.10.3	15.2.1		
2.10.10	4.3.3			8.9.3.1		10.2.2	10.10.4	15.2.2		
2.10.7	4.3.4			8.9.4		10.2.3	10.10.5	15.3.1		
2.16.1	4.8			8.9.5		10.2.4	10.10.6			
2.16.2	4.9			8.9.8		10.2.5	10.11.2			
2.16.3				8.9.9		10.2.6	10.16.1			
				8.9.10		10.3.1	10.16.2			
				8.10.12		10.3.2	10.16.3			
				8.10.13		10.3.3	10.16.4			
				8.10.41		10.3.4	10.17.1			
				8.10.42		10.3.5	10.17.2			
				8.10.43		10.3.6	10.17.3			
						10.4	10.17.4			
						10.5.1	10.19.1			
						10.5.2	10.19.2			
						10.6.1	10.19.3			
						10.6.2	10.20.1			
						10.6.3	10.20.2			
						10.6.4	10.20.3			
						10.6.5	10.21.1			
						10.6.6	10.21.2			

CHAPTERS								
					10.6.7	10.21.3		
					10.7	10.21.4		
					10.8	10.21.5		
					10.9.1.1	10.22		
					10.9.1.2	10.23		
					10.9.2	10.25.2		
					10.9.3	10.25.3		
					10.9.4	10.25.4		
					10.9.5	10.25.5		
					10.9.6	10.25.8		
					10.10			

## CHAPTER 10

### MISCELLANEOUS AND GENERAL PROVISIONS

[Chapter 10 promulgated by GNR.134 of 2001.]

#### 10.1 Place of an accident to be left undisturbed

- (1) When an accident causes the immediate death of any *employee*, the place where the accident occurred must not, without the consent of the Principal Inspector of Mines, be disturbed or altered before such place has been inspected by an Inspector or any other person authorised under section 49(4) by the Chief Inspector of Mines.
- (2) Regulation 10.1(1) does not apply if-
  - (a) such disturbance or alteration is unavoidable to prevent further accidents, to remove fatalities and injured employees or to rescue employees from danger; or
  - (b) the discontinuance of work at such place would seriously impede the working of the mine.

- (3) Despite regulation 10.1(1), work may be resumed at the place where the accident occurred if such inspector or other person authorised by the Chief Inspector of Mines fails to inspect the place within three days after notice of the accident has been given

## **10.2 Right to attend inspection in loco**

Any *employee* having a material interest in an accident referred to in paragraph 10.1(1) as well as that employee's representative may attend any inspection in loco conducted by an inspector but such attendance is at their own risk. In case such *employee* is, by reason of death or the severity of his/her injuries, unable to appoint any representative to attend the inspection in loco, the relatives, or in their absence the fellow employees, of such *employee* may appoint such representative.

[Chapter 10 inserted by Notice No. R134 dated 9 February 2001 and by GNR94 of 2008.]

## **10.1 Hazardous Location**

### **Definitions**

For purposes of regulation 10.1, unless the context indicates otherwise-

**'certified'** means type tested, batch tested or produced under an approved product certification scheme, as described in South African National Standard ARP 0108 'Regulatory requirements for explosion protected apparatus';

**'double protected'** means a combination of any two independent types of explosion protection in such a way that in the event of failure of one of them, the other independent second means provides the required level of protection;

**'explosion protected apparatus'** means any apparatus used in a hazardous location and selected in accordance with the guidelines as defined in the South African National Standard SANS 10108-2005, 'The classification of hazardous locations and the selection of apparatus for use in such locations' and the Aanbevole/Recommended Praktyk/Practice ARP 0108, 'Regulatory requirements for explosion protected apparatus';

**'hazardous location'** means any location where there may be a significant risk of igniting gas, dust, mist or vapour, including the following-

- (a) for underground coal mines any location where, under normal operating conditions, there is a continuous presence of flammable gas, measured at a concentration of 0,5% or more by volume in the general body of the air, including:
  - (i). a return airway; and
  - (ii). any location determined by risk assessment but not less than 180 m from any working face;

- (b) for underground mines other than coal mines any location where, under normal operating conditions, there is a continuous presence of flammable gas measured at a concentration of 0,5% or more by volume in the air.
- (c) for surface mines and surface locations at all mines including offshore installations any location as identified in accordance with South African National Standard SANS 10108: 2004 (Edition 5), 'The classification of hazardous locations and the selection of apparatus for use in such locations'.

**'Light-metal'** means-

- (a) aluminium;
  - (b) magnesium;
  - (c) titanium; and
  - (d) any alloy containing more than-
    - (i). 15 per cent aluminium by mass of the alloy;
    - (ii). 15 per cent aluminium, magnesium and/or titanium, taken together by mass of the alloy; or
    - (iii). 6 per cent magnesium and/or titanium, taken together or separately, by mass of the alloy.
- (1) The *employer* must take reasonable measures to ensure that all electrical reticulation systems used in hazardous locations are designed and selected by a competent person or under the direct supervision of such a competent person.
  - (2) The *employer* must take *reasonably practicable* measures to prevent persons from being injured in any hazardous location as a result of fire, explosion or the ignition of gas, dust, mist or vapour. Such measures must ensure that-
    - (a) all hazardous locations are identified, clearly marked and recorded on a plan or register, which must be kept updated and readily available at the mine;
    - (b) only explosion protected apparatus and systems certified for use in a hazardous location in accordance with the South African National Standard ARP 0108: 2005, 'Regulatory requirements for explosion protected apparatus', are used in any hazardous location;
    - (c) the selection of explosion protected apparatus used in any hazardous location is done in accordance with SANS 10108:2005 'The classification of hazardous locations and the selection of apparatus for use in such locations'. The normative references as listed in SANS 10108 are not applicable to the *employer*;

- (d) the installation, inspection and maintenance of explosion protected apparatus used in a hazardous location is carried out in accordance with SANS 10086-1 2005 'The installation, inspection and maintenance of equipment used in explosive atmospheres Part 1: Installations including surface installations on mines' and SANS 10086-2 2004 'The installation, inspection and maintenance of equipment used in explosive atmospheres Part 2: Electrical equipment installed underground in mines' as appropriate;
- (e) any repair, overhaul or modification to any explosion protected apparatus used in any hazardous location does not alter its design characteristics and is carried out in accordance with SANS 10086-3 2005'. The installation, inspection and maintenance of equipment used in explosive atmospheres Part 3: Repair and overhaul of apparatus used in explosive atmospheres';
- (f) explosion protected apparatus used in any hazardous location is installed, maintained, repaired, overhauled, inspected and tested by a competent person;
- (g) only double protected or intrinsically safe type Ex ia explosion protected apparatus remains energized where flammable gas is present in concentrations in excess of 1.4% by volume in the air. All other explosion protected apparatus must be de-energized at flammable gas concentrations in excess of 1.4% by volume in air;
- (h) every battery operated self propelled mobile machine used in any hazardous location complies with SANS 1654: 2005 'DC powered machines for use in hazardous areas in mines';
- (i) any trailing cable used in any hazardous location is-
  - (aa) provided with a pilot circuit of intrinsically safe voltage and current which will prevent power being supplied to the cable unless the earth conductor is continuous;
  - (bb) provided with a means (system) to prevent arcing of power contacts of any plug used in conjunction with the cable while such plug is being inserted or withdrawn;
  - (cc) provided with a supply of electricity of which the earth fault current is limited to a value so that there is no significant risk of electrocution;
  - (dd) individually screened on poly phase and collectively screened on single phase power conductors; and
  - (ee) designed for being dragged across the ground;
- (j) measures are in place to verify, as far as *reasonably practicable*, that electrical circuits and components of such circuits used for explosion protected apparatus have been correctly designed, selected, installed and repaired;

- (k) only internal compression ignition engine system and machines that comply with the South African National Standard SANS 868-1-1 2005: 'Compression-ignition engine systems and machines powered by such engine systems, for use in mines and plants with explosive gas atmospheres or explosive dust atmospheres or both', Parts 1-1 or 1-2, whichever is applicable, are used in a hazardous location;
- (l) all compression ignition engines used in a hazardous location have a valid Inspection (IA) certificate for the components and the complete machine and test reports issued by an accredited testing laboratory (ATL) that must be available at the mine;
- (m) when a compression ignition engine system has any defect which may contaminate the air and cause a significant risk to the safety or *health* of persons, the use of such engine system is discontinued immediately;
- (n) all maintenance and repairs to diesel-powered equipment is performed by a competent person;
- (o) no apparatus, component or machinery made of a light metal is used in a hazardous location unless such apparatus, component or machinery is-
  - (aa) covered by a housing, sheath, cover or coating (excluding paint) that will prevent such ignition; or
  - (bb) contained, situated or used in such a manner that does not create a significant risk of such ignition; or
- (cc) complies with South African National Standard SANS 10012: 2004 'The use of light metals in hazardous locations at mines'.

[Reg. 10.1 inserted by GNR.94 of 2008.]

## **10.2 Water storage and pumping regulations**

- (1) The *employer* must take reasonable measures to ensure that no person is injured as a result of the failure of any dam wall, plug or barricade keeping back water underground due to inappropriate design, sub-standard construction, or inadequate inspection and maintenance of such dam wall, plug or barricade.
- (2) The measures to be taken by the *employer* to comply with regulation 10.2(1) above, must include measures to ensure that-
  - (a) any dam wall, plug or other barricade keeping back water underground, where the product of the capacity in cubic metres and the hydraulic head in metres of the dam storing water underground and of which they form part, exceeds 50 000, is designed by and constructed under the supervision of a competent person<sup>1</sup>;

- (b) any dam wall, plug or barricade contemplated in subregulation (a) above is maintained by a competent person<sup>1</sup>;
- (c) any dam wall, plug or other barricade keeping back water underground, where the product of the capacity in cubic metres and the hydraulic head in metres of the dam storing water underground and of which they form part, does not exceed 50 000, is designed, constructed, inspected and maintained under the supervision of a competent person<sup>2</sup>; and
- (d) all design calculations and drawings of dam walls, plugs and barricades and mine plans indicating the exact position of such dam walls, plugs and barricades are stored safely for the life of such dam walls, plugs and barricades and are readily available.

1 "competent person" defined in Regulation 22.10.2(2)(a)

2 "competent person" defined in Regulation 22.10.4(2)(b)

(3) The employer must:

- (a) Take *reasonably practicable* measures to prevent persons from being injured by the unintentional release of water and hydraulic pressure from any dam storing water underground; and
- (b) prepare and implement a procedure to prevent injury to persons involved with the installation, construction, inspection, testing and maintenance of the following hydraulic pressure systems
  - (i). high pressure water jetting systems;
  - (ii). shaft high pressure cement columns;
  - (iii). shaft water and sludge columns;
  - (iv). dam water and sludge systems;
  - (v). mine residue discharge pumps;
  - (vi). hydraulic water accumulator systems;
  - (vii). high pressure pumping installations; or
  - (viii). backfill columns and associated equipment.

[Reg. 10.2 inserted by GNR.94 of 2008.]

### 10.3 Draw points, tipping points, rock passes and box fronts

#### Definitions

For purposes of regulation 10.3, unless the context indicates otherwise-

**'box front'** means a structure installed at an opening of a rock pass to control the flow of rock, and includes bulkheads, chutes, platforms, control mechanisms, cylinders and similar accessories;

**'draw point'** means a point where rock is loaded out or allowed to flow out from an excavation;

**'rock'** means any mineral, ore and waste in solid form and coal;

**'rock pass'** means any inclined excavation in which any rock is transported by the force of gravity; and  
**'tipping point'** means the upper inlet into a rock pass.

- (1) The *employer* must take *reasonably practicable* measures to ensure that:
  - (a) The designs, and any modification thereto that can change the design criteria, of structures for draw points, tipping points, rock passes and box fronts are recorded and approved in writing by a competent person; and
  - (b) the approved designs and records of approval are kept readily available at the mine for the life of such installation.
- (2) The *employer* must take *reasonably practicable* measures to ensure that:
  - (a) A competent person in writing certifies that the construction, installation and modification of draw points, tipping points, rock passes and box front structures have been done in accordance with their design criteria before they are used; and
  - (b) the written certifications contemplated in regulation 10.3(2)(a) are kept readily available at the mine for the life of the particular structure.
- (3) The *employer* must take *reasonably practicable* measures to ensure that written procedures are prepared and implemented for:
  - (a) The removal of structures for draw points, tipping points and box fronts;
  - (b) persons entering a rock pass while it contains water, mud, rock or a combination thereof;
  - (c) clearing blocked rock passes; and
  - (d) the lock-out, maintenance and rehabilitation of draw points, tipping points, rock passes and box fronts.

[Reg. 10.3 inserted by GNR.94 of 2008.]

## CHAPTER 11

### OCCUPATIONAL HEALTH

[Heading amended by GNR.786 of 2002 and by GNR.621 of 2013.]

#### 11.1 Appeal regarding finding of unfitness to perform work

An appeal under section 20(1) must be lodged with the medical inspector-

- (a) within 30 days of a decision or finding that an *employee* is unfit to perform any particular category of work;
- (b) within 90 days of the date of issue of an exit medical certificate; or

- (c) within such period as the medical inspector may allow on good cause shown.

[Regulation 11.1 promulgated by GNR.721 of 1999.]

## **11.2 Annual Medical Report**

The annual medical report contemplated in section 16(1) must include details regarding at least the following:

- (a)
  - (i). Name of mine.
  - (ii). Name, address and telephone number of the occupational medical practitioner responsible for compiling the annual medical report.
- (b) Type of mine. Commodity or commodities being mined.
- (c) Total number of employees (including contract workers) who were subject to medical surveillance in terms of section 13 during the reporting period and the total number of hours worked by those employees.
- (d) The number of initial, periodical and exit examinations conducted as part of the medical surveillance system.
- (e) An analysis of the employees' health based on the employees' records of medical surveillance, without disclosing the names of the employees.
- (f) Comments on the future direction of the medical surveillance system.
- (g) The number of employees certified for compensation for occupational diseases.

[Reg. 11.2 promulgated by GNR.1486 of 1999.]

## **11.3 Exit certificate**

The exit certificate contemplated in section 17 must include details regarding at least the following:

### **11.3.1 Particulars of mine:**

- (a) Name of mine
- (b) Types of mine commodities being mined
- (c) Postal address
- (d) Telephone number
- (e) Fax number
- (f) Name of Occupational Medical Practitioner responsible for producing the exit certificates in terms of section 17(4).

### **11.3.2 Particulars of employees:**

- (a) Name
- (b) Date of birth
- (c) Identification details: Identity number, Passport number, Industry number and company number

- (d) Date of initial medical examination.

**11.3.3 Exit medical summary:**

- (a) Date of last medical examination
- (b) Clinical comments on chest x-ray (CXY)
- (c) International Labour Organization (ILO) classification of the chest x-ray (CXR) if applicable
- (d) Lung function Testing:
  - (i). Forced Expiratory Volume in 1 second (FEV1) - actual and predic[t]able percentages
  - (ii). Forced Vital Capacity (FVC) - actual and predic[t]able percentages
  - (iii). Ratio of forced Expiratory Volume in 1 second (FEV1)/Forced Vital Capacity (FVC) expressed as a percentage
- (e) Audiometry
  - (i). Baseline Audiogram readings (measurement in dB at 0.5, 1, 2, 3, 4 KHz) in terms of regulation 11.4
  - (ii). Baseline Percentage Loss of Hearing (PLH) as contemplated in instruction 171, issued by the Compensation Commissioner in terms of the Compensation for Occupational injuries and Diseases Act, 1993
  - (iii). Exit Audiogram readings (measurement is dB at 0.5, 1, 2, 3, 4 KHz)
  - (iv). Exit PLH as contemplated in instruction 171
- (f) Biological monitoring results of the *employee*, and provide comments on abnormal results
- (g) Occupational diseases previously incurred and current including severity
- (h) Any compensation claims submitted and/or compensation received
- (i) Name and signatures of Occupational Medical Practitioner
- (j) Signature of *employee*, witness and date of receipt by *employee* of a copy of the exit certificate.

[Regulation 11.3 amended by GNR.1486 of 1999, GNR.303 of 2000 and substituted by GNR.1053 of 2010 and by GNR.621 of 2013.]

**11.4 Noise**

**System of Medical Surveillance**

- (1) The *employer* must establish and maintain a system of medical surveillance, as contemplated in section 13, of all employees in any *working place* where the equivalent, continuous A-weighted sound pressure level, normalised to an eight hour working day or a forty hour working week, is equal to or exceeds 85 dB(A).

### **Types of Audiograms**

- (2) The system of medical surveillance contemplated in regulation 11.4(1) must consist of a baseline audiogram, periodic audiograms and an exit audiogram.
- (3) A competent person must perform all audiograms.

### **Baseline Audiogram**

- (4) A baseline audiogram must be recorded before an *employee* commences employment or within 30 days of commencement of employment in any *working place* contemplated in regulation 11.4(1).
- (5) Testing for the baseline audiogram must not be done within 16 hours from when an *employee* has been exposed to an environment in which the noise level was equal to or exceeded 85 dB(A). The use of hearing protection devices to effect this attenuation will not be acceptable.
- (6) The baseline audiogram is the better of the employee's two audiograms performed on the same day and that do not differ from each other by more than 10 dB for any of the following measured test frequencies, i.e. 0.5,1,2,3, and 4 kilohertz (kHz).
- (7) If it is impossible to obtain two audiograms that comply with the requirements of regulation 11.4(6), the employees must be referred to a competent person to establish baseline-hearing levels in accordance with regulation 11.4(6).
- (8) If it is impossible for the competent person to establish baseline-hearing levels as contemplated in regulation 11.4(7), the competent person may establish baseline-hearing levels by using other techniques, such as speech reception thresholds.

### **Periodic Audiograms**

- (9) The *employer* must ensure that a periodic audiogram is obtained at least annually for all employees subject to medical surveillance in terms of regulation 11.4(1).
- (10) The periodic audiogram contemplated in regulation 11.4(9) must be performed at least 16 hours after any exposure of the employees to a noise level equal to or exceeding 85 dB(A). Use of appropriate hearing protection devices to reduce exposure will be acceptable.

### **Exit Audiogram**

- (11) In addition to the exit medical examination for the purposes of section 17, the *employer* must arrange an audiogram for every employees subject to medical surveillance in terms of regulation 11.4(1) and who is permanently transferred to a *working place* in respect of which medical surveillance is not required under regulation 11.4(1).
- (12) An audiogram conducted within the preceding six months may be used as an exit audiogram for purposes of section 17 or regulation 11.4(11).

[Reg. 11.4 promulgated by GNR.786 of 2002.]

### **Regulations for Medical Surveillance for Asbestos Dust Exposure**

#### **11.5 Asbestos Dust**

##### **System of Medical Surveillance**

- (1) The *employer* must establish and maintain a system of medical surveillance as contemplated in section 13, for all employees who perform work in any *working place* where exposure to asbestos dust occurs in excess of 50% of the OEL for asbestos dust as set out in Schedule 22.9(2)(a) and (b).

##### **Types of Examinations to be Performed**

- (2) The system of medical surveillance contemplated in regulation 11.5(1) must consist of an initial examination, periodic examinations and an exit examination.

##### **Initial Examination**

- (3) The *employer* must ensure that an initial examination is performed before an *employee* commences employment, or within 30 days of commencement of employment, in any *working place* contemplated in regulation 11.5(1). The initial examination must consist of:
  - (a) the completion of an appropriate respiratory questionnaire aimed at establishing the employee's medical profile, including current and past cardio-respiratory problems and an occupational history detailing possible exposure to asbestos dust.
  - (b) a cardio-respiratory examination, including:
    - (i). a full size chest x-ray; and
    - (ii). a lung function test.

##### **Periodic Examinations**

- (4) The *employer* must ensure that the following periodic examinations are conducted on all employees required to undergo medical surveillance in terms of regulation 11.5(1):
  - (a) a cardio-respiratory examination, including a lung function test, but excluding a chest x-ray, one year after the initial examination contemplated in regulation 11.5(3); and thereafter

- (b) a cardio-respiratory examination, at three yearly intervals, which includes:
  - (i). a full size chest x-ray; and
  - (ii). a lung function test.

### **Exit Examination**

- (5) In addition to the exit medical examination for the purposes of section 17, the *employer* must arrange a cardio-respiratory examination for every *employee* subject to medical surveillance in terms of regulation 11.5(1) and who is permanently transferred to a *working place* in respect of which medical surveillance is not required under regulation 11.5(1).
- (6) A full size chest x-ray conducted within the preceding twelve months may be used as the exit chest x-ray for the purposes of section 17 and regulation 11.5(5).
- (7) A lung function test conducted within the preceding twelve months may be used as the lung function test for the purposes of section 17 and regulation 11.5(5).

[Reg. 11.5 promulgated by GNR.1792 of 2003]

## **Regulations for Medical Surveillance for Coal Dust Exposure**

### **11.6 Coal Dust**

#### **System of Medical Surveillance**

- (1)
  - (a) The *employer* must establish and maintain a system of medical surveillance as contemplated in section 13, for all employees who perform work in any *working place* where exposure to coal dust occurs in excess of 50% of the OEL for coal dust with less than 5% crystalline silica content as set out in Schedule 22.9(2)(a) and (b).
  - (b) If the crystalline silica content of the coal dust is 5% or more, the *employer* must establish and maintain a system of medical surveillance as contemplated in regulations 11.7(1) to 11.7(7):

#### **Types of Examinations to be Performed**

- (2) The system of medical surveillance contemplated in regulation 11.6(1)(a) must consist of an initial examination, periodic examinations and an exit examination.

### **Initial Examination**

- (3) The *employer* must ensure that an initial examination is performed before an *employee* commences employment, or within 30 days of commencement of employment, in any *working place* contemplated in regulation 11.6(1)(a). The initial examination must consist of:
- (a) the completion of an appropriate respiratory questionnaire aimed at establishing the employee's medical profile, including current and past cardio-respiratory problems and an occupational history detailing possible exposure to coal dust;
  - (b) a cardio-respiratory examination, including:
    - (i). a full size chest x-ray; and
    - (ii). a lung function test.

### **Periodic Examinations**

- (4) The *employer* must ensure that the following periodic examinations are conducted on all employees required to undergo medical surveillance in terms of regulation 11.6(1)(a):
- (a) a cardio-respiratory examination, including a lung function test, but excluding a chest x-ray, one year after the initial examination contemplated in regulation 11.6(3); and thereafter
  - (b) a cardio-respiratory examination, at three yearly intervals, which includes:
    - (i). a full size chest x-ray; and
    - (ii). a lung function test.

### **Exit Examination**

- (5) In addition to the ex-medical examination for the purposes of section 17, the *employer* must arrange a cardio-respiratory examination for every *employee* subject to medical surveillance in terms of regulation 11.6(1)(a) and who is permanently transferred to a *working place* in respect of which medical surveillance is not required under regulation 11.6(1)(a).
- (6) A full size chest x-ray conducted within the preceding twelve months may be used as the exit chest x-ray for the purposes of section 17 and regulation 11.6(5).
- (7) A lung function test conducted within the preceding twelve months may be used as the lung function test for the purposes of section 17 and regulation 11.6(5).

[Reg. 11.6 promulgated by GNR.1792 of 2003.]

## **Regulations for Medical Surveillance for Silica Dust Exposure**

### **11.7 Crystalline Silica Dust**

#### **System of Medical Surveillance**

- (1) The *employer* must establish and maintain a system of medical surveillance as contemplated in section 13, for all employees who perform work in any *working place* where exposure to crystalline silica dust occurs in excess of 10% of the OEL for crystalline silica dust as set out in Schedule 22.9(2)(a) and (b).

#### **Types of Examinations to be Performed**

- (2) The system of medical surveillance contemplated in regulation 11.7(1) must consist of an initial examination, periodic examinations and an exit examination.

#### **Initial Examination**

- (3) The *employer* must ensure that an initial examination is performed before an *employee* commences employment, or within 30 days of commencement of employment, in any *working place* contemplated in regulation 11.7(1). The initial examination must consist of:
- (a) the completion of an appropriate respiratory questionnaire aimed at establishing the employee's medical profile, including current and past cardio-respiratory problems and an occupational history detailing possible exposure to silica dust.
  - (b) a cardio-respiratory examination, including:
    - (i). a full size chest x-ray; and
    - (ii). a lung function test.

#### **Periodic Examinations**

- (4) The *employer* must ensure that the following periodic examinations are conducted on all employees required to undergo medical surveillance in terms of regulation 11.7(1):
- (a) a cardio-respiratory examination, including a lung function test, but excluding a chest x-ray, one year after the initial examination contemplated in regulation 11.7(3); and thereafter
  - (b) a cardio-respiratory examination, at three yearly intervals, which includes:
    - (i). a full size chest x-ray; and
    - (ii). a lung function test.

### **Exit Examination**

- (5) In addition to the exit medical examination for the purposes of section 17, the *employer* must arrange a cardio-respiratory examination for every *employee* subject to medical surveillance in terms of regulation 11.7(1) and who is permanently transferred to a *working place* in respect of which medical surveillance is not required under regulation 11.7(1).
- (6) A full size chest x-ray conducted within the preceding twelve months may be used as the exit chest x-ray for the purposes of section 17 and regulation 11.7(5).
- (7) A lung function test conducted within the preceding twelve months may be used as the lung function test for the purposes of section 17 and regulation 11.7(5).

[Reg. 11.7 promulgated by GNR.1792 of 2003.]

### **11.8 Reporting of Occupational Diseases**

- (1) The *employer* must report to the Principal Inspector of mines any of the following occupational diseases within 30 days from the date of diagnosis as a result of working in the mines:
  - (a) Occupational lung diseases;
  - (b) Other occupational diseases as covered by the Compensation for Occupational Injuries and Diseases Act, 1993 (Act 130 of 1993) as amended ('COIDA'), or Occupational Diseases in the Mines and Works Act, 1973 (Act 78 of 1973) as amended ('ODMWA');
  - (c) Noise Induced Hearing Loss (when Percentage Loss of Hearing (PLH) shift is 5% or more);
  - (d) Other illnesses that may impact on the *health* and safety of employees, as determined through instructions by the Chief Inspector of Mines.
- (2) In reporting the reportable occupational diseases listed in regulation 11.8(1) using the form DMR 231 Health Incident Report (HIR) Form, the following must be considered-
  - (a) Occupational lung diseases
    - (i). Silicosis and Coal Worker's Pneumoconiosis (CWP)  
A radiological diagnosis of silicosis or coal-workers' pneumoconiosis that takes into account:
      - (a) History of significant exposure to airborne silica or coal dust; and
      - (b) Chest X-ray consistent with silicosis or coal-workers' pneumoconiosis; or

- (c) Lung tissue pathology consistent with silica or coal-workers' pneumoconiosis exposure where history has been done at post mortem.
  - (ii). Cardio-respiratory Tuberculosis
    - Tuberculosis affecting the respiratory organs and/or the heart muscles:
    - (a) Where an *employee* was exposed and contracted the disease while performing risk work at a mine; or
    - (b) Within 12 months after leaving employment.
  - (b) Other Occupational Lung Diseases
    - These include other occupational lung diseases with significant correlation with the risk in that particular mine which are also compensable under 'ODMWA' or 'COIDA'.
  - (c) Noise Induced Hearing Loss
    - This includes an impairment of hearing as a result of exposure to excessive noise at a mine with;
    - (i). PLH shift of more than or equal to 5% from the baseline audiometry; and
    - (ii). PLH shift of more than 5% where baseline audiometry is unknown or regarded as zero.
  - (d) Other Illnesses
    - Other illnesses that may impact on the *health* and safety of employees, as determined through instructions by the Chief Inspector of Mines. These may include lifestyle diseases such as diabetes, hypertension etc.
- (3) Occupational diseases referred to in regulation 11.8(1)(a), (b) and (c) must be reported on a prescribed form to the Principal Inspector of Mines within 30 days from the date of diagnosis; and other illnesses referred to in regulation 11.8.1(d) based on an instruction from the Chief Inspector of Mines.

[Reg.11.8 inserted by GNR.701 of 12 September 2014.]

### **11.9 Record of Hazardous Work**

- (a) An up to date copy of the employee's Record of Hazardous Work recorded in prescribed form DMR 276 must be delivered to the Medical Inspector and also attached to the Exit Certificate as contemplated in terms of section 14 of the Act.

[Reg. 11.9 inserted by GNR621 of 2013]

EMPLOYEE'S RECORD OF HAZARDOUS WORK

mineral resources  
Department of Mineral Resources,  
REPUBLIC OF SOUTH AFRICA

SIGNATURE OF HYGIENIST/ LINE MANAGER:

SIGNATURE OF EMERGENCY:

Note Section 14(1)(g) of the Mine Health and Safety Act states that:

DATE:

DATE: \_\_\_\_\_

(ii) The employer at every mine must keep a service record in the prescribed form, of employees at the mine who perform work in respect of which medical surveillance is conducted in terms of section 13. (iii) The employer must deliver to the Medical Inspector a copy of the relevant part of the record kept in terms of subsection (1) – (a) when an employee whose name appears in that record

## CHAPTER 12

### OFFSHORE INSTALLATIONS

[Regulations not yet promulgated]

## CHAPTER 13

### OUTLETS

[Chapter 13 promulgated by GNR.1224 of 2005.]

#### 13.1

- (1) The *employer* must prevent employees from being trapped in any underground excavation by providing whenever practicable, from every underground *working place*, two exits, each of which is connected to separate means of egress to the surface.
- (2) Where it is not practicable to provide two exits as contemplated in regulation 13.1(1) above, the *employer* must implement other *reasonably practicable* measures, determined by the mine's risk assessment, to prevent employees from being trapped in any underground excavation.

[Reg. 13.1(2) amended by Reg. 3 of GNR.90 of 2008.]

- (3) Except in the case of emergency no person may enter or leave the underground workings of a mine except by means of ingress or egress especially provided or set apart for that purpose by the *employer* unless such person is authorised to do so by the *employer*.
- (4) The following regulations promulgated under Minerals Act, 1991 (Act 50 of 1991) in force in terms of item 4 of Schedule 4 of the Act, are hereby repealed-

<b>Chapter 6</b>	<b>Chapter 16</b>
6.1.1	16.98.19.1
6.1.2	16.98.119.2.1
6.1.3	16.98.219.2.2
6.2.1	16.98.319.3.1
6.2.2	16.98.419.3.2
6.2.3	16.98.519.3.3
6.2.4.	16.9919.3.4
6.2.5	16.10019.4
6.3.1	16.10119.5
6.3.2	16.10219.6
6.3.2.1	16.103
6.3.2.6	16.103.1
6.3.2.7	16.103.2
6.3.2.8	16.104
6.3.2.12	
6.3.3.1	
6.3.3.2	
6.3.3.3	
6.3.3.4	
6.3.3.5	
6.3.3.6	
6.9	
6.11	

[Reg. 13.1(4) deleted and substituted by Reg. 4 of GNR.90 of 2008.]

## CHAPTER 14

### PROTECTION OF THE SURFACE AND THE WORKINGS

[Chapter 14 promulgated by GNR.959 of 2002. Heading amended by GNR.1573 of 2002.]

#### 14.1 Entering of working places

At every underground mine where a risk of rock bursts, rock falls or roof falls exists, and at every other mine where a significant risk of rock bursts, rock falls or roof falls exists, the *employer*—

- (1) may not permit any person, other than those persons examining and making safe, to enter any of the following areas at the mine until such areas are declared safe by competent persons:
  - (a) the area between the face and the nearest line of permanent support; and
  - (b) access ways, travelling ways or places where persons need to travel or work;
- (2) must ensure that the examinations for purposes of regulation 14.1(1) are carried out as often as may be required, in terms of the mine's risk assessment, to maintain a safe working environment;
- (3) must ensure that a record of declarations contemplated in regulations 14.1(1) and 14.1(5) is kept for a period of at least three months;
- (4) must ensure that where areas contemplated in regulation 14.1(1) have not been examined, made and declared safe, persons are prevented from inadvertently entering such areas;
- (5) must ensure, if at any time a *working place* or part thereof becomes unsafe during a shift, that all persons, other than those examining and making safe, are removed from such unsafe area and are not permitted to return thereto until declared safe by a competent person;
- (6) must ensure that a quality, assurance system is in place, which ensures that the support units used at the mine provide the required performance characteristics for the loading conditions expected;
- (7) must ensure that only competent persons install, maintain and remove any support unit;

- (8) must ensure that the input of a competent person is properly and timeously considered and integrated into mine design, planning and operations.

[Reg. 14.1 inserted by GNR.959 of 2002.]

- 14.2** No person, other than those persons examining and making safe, may enter any of the areas contemplated in regulation 14.1(1) until such areas have been declared safe as contemplated in regulations 14.1(1) and 14.1(5).

[Reg. 14.2 inserted by GNR.959 of 2002.]

- 14.3** The following regulations made under the Minerals Act, 1991 (Act 50 of 1991) in force in terms of Schedule 4 of the Mine Health and Safety Act, 1996 (Act 29 of 1996) are hereby repealed.

7.1	8.4.2(a), (b) and (d)
7.2.2	8.4.3
7.4.5	8.4.4.1
8.1.1	8.4.4.2
8.1.2	8.4.4.3
8.1.3	8.4.5
8.1.5	8.8
8.1.6	8.9.1, 8.9.2
8.2	8.9.6
8.3.1	8.10.11
8.3.2	

[Reg. 14.3 inserted by GNR.959 of 2002.]

- 14.4** The *employer* must take reasonable measures to ensure where the condition at any *working place* pose or might pose a significant risk to the *health* and safety of persons resulting from an ingress of water or other fluid material likely to cause drowning, asphyxiation, inundation, physical impact, chemical exposure or being trapped, that all working places are adequately protected against such ingress of water or other fluid material.

[Reg. 14.4 inserted by GNR.1323 of 2004.]

- 14.5** The *employer* must take reasonable measures to ensure that no person is endangered by any significant risks such as falling, drowning, slipping, asphyxiation or being struck by rock or other material associated with subsidences or cavities brought about by mining operations.

[Reg. 14.5 inserted by GNR.1323 of 2004.]

**14.6** The *employer* must take reasonable measures to ensure that no person is endangered by any significant risks such as the collapse of surface buildings and structures thereon associated with structural failure as a result of the removal of any type of support provided for the protection of the surface of a mine or structures or objects thereon.

[Reg. 14.6 inserted by GNR.1323 of 2004.]

**14.7** The following regulations made under the Minerals Act, 1991 (Act 50 of 1991), in force in terms of Schedule 4 of the Mine Health and Safety Act, 1996 (Act 29 of 1996) are hereby repealed:—

5.1.1	5.4.5	5.6.3
5.1.2	5.4.6	5.7
5.2	5.5	5.10
5.3.3	5.6.1	
5.3.4	5.6.2	

[Reg. 14.7 inserted by GNR.1323 of 2004.]

## CHAPTER 15

### QUALIFICATIONS AND COMPETENCIES

[Heading amended by GNR.907 of 2002.]

To be promulgated

## CHAPTER 16

### RESCUE, FIRST AID AND EMERGENCY PREPAREDNESS AND RESPONSE

[Heading amended by GNR.907 of 2002 and by GNR.906 of 21 November 2014. Chapter 16 promulgated by GNR.569 of 2002.]

#### 16.1 Report to Employer Relating to Explosions, Fires and Flooding

- (1) The *employer* must ensure that a competent person reports to the *employer*, at appropriate intervals determined in accordance with the mine's risk assessment, on the adequacy of escape and rescue procedures at the mine relating to explosions, fires and flooding.

[Reg. 16.1 promulgated by GNR.904 of 2002.]

#### 16.2 Issuing of Self-Contained Self-Rescuers

##### Coal Mines

- (1) The *employer* of every coal mine must ensure that no person goes underground at the mine without a body-worn self-contained self rescuer, which complies with the South African Bureau of Standards specification SABS 1737.

##### Mines other than Coal Mines

- (2) If at any mine other than a coal mine, the risk assessment in terms of section 11 shows that there is a significant risk that employee's may be exposed to irrespirable atmospheres at any area at the mine, the *employer* must ensure that no person goes into such area without a body-worn self-contained self-rescuer, which complies with the South African Bureau of Standards specification SABS 1737.

##### Sole Allocation of a Self-Contained Self-Rescuer

- (3) Any body-worn self-contained self-rescuer supplied to any *employee*, employed in a full time capacity at the mine, in terms of subregulations 16.2(1) and 16.2(2), must be allocated to the *employee* for that employee's sole use for the duration of the deployment of that self-contained self-rescuer at the mine or until that self-contained self rescuer becomes defective and the *employee* is issued with another self-contained self-rescuer as required by these regulations.

[Reg. 16.2 inserted by GNR.569 of 2002.]

### **16.3 No Defective Self-Contained Self-Rescuer is Issued**

#### **Employer to ensure no defective self-contained self-rescuer is issued**

- (1) The *employer* must ensure that no defective self-contained self-rescuer is issued for use to any *employee* at a mine.

[Reg. 16.3 inserted by GNR.569 of 2002.]

### **16.4 Monitoring Programme**

#### **Annual testing of a Self-Contained Self-Rescuer**

- (1) The *employer* must annually have a representative sample of the self-contained self-rescuers at the mine tested by an organisation accredited to do so in terms of the South African National Accreditation System for assessment of the structural integrity and functional performance.

Such representative sample must not be less than 1% of the self-contained self-rescuers at the mine and must be representative of the age and deployment of the self-contained self-rescuers.

#### **Record keeping**

- (2) The *employer* must keep the following information, on self-contained self-rescuers at the mine, covering the preceding 24 months:
  - (a) total number and makes of self-contained self-rescuers in service at the mine;
  - (b) number and make of self-contained self-rescuers purchased by the mine in that period;
  - (c) number and make of self-contained self-rescuers withdrawn from use by the mine in that period;
  - (d) the number of shifts worked per day (1, 2 or 3);
  - (e) number of self-contained self-rescuers in daily use (average for each month);
  - (f) number of employees underground (average per shift);
  - (g) number of spare self-contained self-rescuers available (average per month);
  - (h) a tabulation of the type of defects found;
  - (i) number of self-contained self-rescuers repaired/refurbished; and
  - (j) number of self-contained self-rescuers tested in terms of regulation 16.4(1).

[Reg. 16.4 inserted by GNR.569 of 2002.]

## 16.5 Emergency Preparedness and Response

### Definitions

For purposes of regulation 16.5, unless the context indicates otherwise-

**'emergency'** means a situation, event or set of circumstances at a mine that could threaten the *health* or safety of persons at or off the mine, and which requires immediate remedial action, such as the evacuation, rescue or recovery of persons, to prevent serious injury or harm, or further serious injury or harm, to persons;

**'breathing apparatus'** means an apparatus which renders the user independent from breathing from the atmosphere for a minimum of two (2) hours.

- (1) The *employer* at every underground mine must-
  - (a) provide and maintain, readily available at the mine, mine rescue teams, consisting of at least five competent persons, per mine rescue team, in the following minimum proportions determined by the maximum number of persons who could be underground at any one time-
    - (i). where there could be between 100 and 1100 persons underground, at least 1 mine rescue team;
    - (ii). where there could be between 1101 and 3600 persons underground, at least 2 mine rescue teams;
    - (iii). where there could be between 3601 and 8100 persons underground, at least 3 mine rescue teams; and
    - (iv). where there could be more than 8100 persons underground, at least 3 mine rescue teams and at least 1 additional mine rescue team for every additional 6300 persons who could be underground;
  - (b) have readily available, at the mine for use by the rescue team members contemplated in regulation 16.5(1)(a), sufficient breathing apparatus that may be required in any emergency and which breathing apparatus must continually comply with SANS 50145:1997/EN 145:1997 'Respiratory protective devices - Self-contained closed-circuit breathing apparatus - Compressed oxygen or compressed oxygen-nitrogen type-Requirements, testing, marking';
  - (c) enter into a contract with a mines rescue service provider to co-ordinate and facilitate the provision of mine rescue teams and other services, relating to an emergency, on a co-operative basis; and
  - (d) immediately notify such mines rescue service provider should any emergency occur at the mine that may require the use of rescue team members, contemplated in 16.5(1)(a), or the use of the services of such mines rescue service provider.

- (2) For the purposes of regulation 16.5(1)(c) and (d), a mines rescue service provider must-
  - (a) be an organisation/institution which has personnel with specialist knowledge and experience in mines rescue and emergencies and which has access to rescue equipment and training facilities, including facilities for Heat Tolerance Testing, Workload Testing and Simulated Training;
  - (b) render an emergency rescue service on a co-operative basis;
  - (c) provide mines rescue services with emphasis on mobilisation of mine rescue teams, quantity or access to rescue teams, emergency communication, additional emergency resources, back up facilities and transport;
  - (d) ensure that any breathing apparatus that may be used by mine rescue teams continually complies with SANS 50145:1997/EN 145:1997 'Respiratory protective devices - Self-contained closed-circuit breathing apparatus - Compressed oxygen or compressed oxygen-nitrogen type - Requirements, testing, marking';
  - (e) ensure that their personnel is competent to check and maintain any rescue equipment used by it in accordance with the Original Equipment Manufacturer's specifications;
  - (f) test and maintain the functional performance of any other rescue equipment used by it in accordance with the Original Equipment Manufacturer's specifications; and
  - (g) ensure that the rescue team members used by them to provide mines rescue services meet the qualification requirements as prescribed in Chapter 22.
- (3) Every mines rescue service provider, referred to in regulation 16.5(2), must-
  - (a) keep a register of all persons who have been found competent to practise as a rescue team member by that mines rescue service provider;
  - (b) implement and maintain a system to issue licences to practise to persons contemplated in 16.5(3)(a) and who meet such criteria as determined by the rescue service provider, which criteria must include at least the following-
    - (i). the person has not attained the age of 46 years;
    - (ii). the person has been declared medically fit in terms of the requirements of the mine's 'Code of Practice on Minimum Standards of Fitness to Perform Work at the Mine' as may be amended from time to time, prepared in accordance with the Guideline for the Compilation of a Mandatory Code of Practice on Minimum Standards of Fitness to Perform Work at a Mine;

- (iii). the person has undergone and passed the Heat Tolerance Test, conducted in terms of Chamber of Mines of South Africa Research Organization Research Report 29/87 - 'A guide to the selection and classification of rescue brigadesmen on the basis of Heat tolerance', initially and thereafter at intervals not exceeding 24 months;
  - (iv). the person has undergone refresher-training sessions as determined by the mines rescue service provider at intervals of not more than 3 months. At least 2 of these trainings per annum must be in a mine or simulated mine, in an atmosphere filled with smoke, whilst using a breathing apparatus; and
  - (v). the person has undergone and passed the Work Load Test, conducted in terms of the Chamber of Mines of South Africa S and TS Circular 39/93 dated 5 April 1993, initially and thereafter at intervals not exceeding 12 months.
- (c) monitor compliance by persons, issued with a licence to practice by it, with the requirements contemplated in regulation 16.5(3)(b) and suspend or revoke any such licence if the person no longer meets any of those requirements, and re-issue a licence when the person again meets the requirements.
- (4) Whenever an emergency occurs at a mine that requires the deployment of mine rescue teams, the *employer* and any mines rescue service provider notified in terms of regulation 16.5(1)(d) and whose assistance has been requested, must take reasonable measures to ensure that the required mine rescue teams are deployed as soon as possible.
- (5) No *employer* or mines rescue service provider may allow any rescue team member contemplated in regulation 16.5(1)(a) to be deployed as a member of a mine rescue team during an emergency unless such rescue team member is in possession of a valid licence to practice , as contemplated in regulation 16.5(3) and has passed a pre-operational medical examination, determined by the mines rescue service provider, to ensure that the rescue team member is medically fit at the time to be so deployed.

[Reg. 16.5 inserted by GN. 86 of 2008.]

## **16.6 Refuge bays**

- (1) The *employer* of every underground mine must ensure that:
- (a) readily accessible refuge bays are provided in the underground workings of the mine; and

- (b) where a mine is required to have self-contained self rescuers in terms of regulation 16.2 above, such refuge bays are located within the limits of protection afforded by the self-contained self-rescuers in use at the mine, when being used.
- (2) The *employer* must take *reasonably practicable* measures to ensure that, having regard to the number of persons likely to be present in the area served by the refuge bay, every refuge bay complies with at least the following-
- (a) is of sufficient size;
  - (b) is equipped with means for the sufficient supply of respirable air;
  - (c) is equipped with a sufficient supply of potable water;
  - (d) is equipped with sufficient ablution facilities;
  - (e) is equipped with sufficient illumination;
  - (f) is equipped with sufficient first aid equipment;
  - (g) is equipped with efficient means to communicate verbally to surface;
  - (h) is situated, where practicable, in an area not being used for storage of combustible material or close to such an area;
  - (i) is constructed in such a way that air containing noxious smoke, fumes or gases will not enter the refuge bay;
  - (j) a plan of the escape route is displayed in the refuge bay, indicating the position of the refuge bay in relation to the shaft or any other egress or access way to the surface;
  - (k) a sign is displayed in the refuge bay, setting out the emergency procedures to be followed in the refuge bay and relevant emergency phone numbers; and
  - (l) has a means to facilitate clear identification of the location of the refuge bay from the outside in poor visibility.
- (3) The *employer* must take *reasonably practicable* measures to ensure that every refuge bay is examined to ensure compliance with 16.6(2)(a) to (l)-
- (a) at least once every 30 days by a person appointed in terms of regulation 2.15.1 or 2.17.1 in force in terms of item 4 of Schedule 4 of the Act or any other *employee* of a higher ranking;
  - (b) at least once every 90 days by a person appointed in terms of section 12 of the Act, or by a person who holds the Intermediate Certificate in Mine Environmental Control, issued by the Chamber of Mines of South Africa, working under the control of a person appointed in terms of section 12 of the Act.
- (4) The *employer* must take *reasonably practicable* measures to ensure that a written report on the inspection contemplated in regulation 16.6(3)(b) is provided within 7 days to the manager appointed in terms of section 3(1)(a).

[Reg. 16.6 inserted by GNR.906 of 2014.]

## CHAPTER 17

### SURVEYING, MAPPING AND MINE PLANS

[Heading amended by GNR.907 of 2002. Chapter 17 promulgated by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

#### 17.1 Definitions

In this Chapter, unless the context indicates otherwise-

**'bedded mineral deposit'** means any reef, coal seam, lode, mineral bed or fissure, which occurs conformably within its country rock and is not of a massive nature;

**'chart datum'** means the Lowest Astronomical Tide in all ports of the Republic of South Africa and Namibia as determined from time to time by the hydrographer of the South African Navy;

**'competent person'** for purposes of regulation 17(2)(a) means:

- (a) in the case of an underground mine or a surface mine where blasting takes place, a person in possession of a Mine Surveyor's Certificate of Competency issued by the Department; or
- (b) in the case of a surface mine where blasting does not take place, a person in possession of a Mine Surveyor's Certificate of Competency issued by the Department; or a person who has passed the examination for mining legislation as is required for the Mine Surveyor's Certificate of Competency issued by the Department and who is in possession of either:
  - (i). an Advanced Certificate in Mine Surveying issued by the Chamber of Mines of South Africa and who has at least three (3) years practical experience in mine surveying; or
  - (ii). a National Diploma in Mine Surveying issued by a tertiary institution accredited by the Department of Education; or
  - (iii). a person who has been assessed competent against a qualification recognised by the Mining Qualification Authority for this purpose.
- (c) in the case of mining at sea, a person in possession of a Mine Surveyor's Certificate of Competency issued by the Department; or a person who has passed the examination for mining legislation as required for the Mine Surveyor's Certificate of Competency issued by the Department and who is in the possession of either:
  - (i). a qualification in Hydrographic Surveying recognised by the Council for Professional and Technical Surveyors of South Africa for registration in the category of Technician; or

(ii). a person who has been assessed competent against a qualification recognised by the Mining Qualifications Authority for this purpose.

**'Director:** **Mine Surveying'** means the person appointed as such by the Department in terms of the Public Service Act of 1994;

**'fixed position'** means any point other than a survey station which is fixed within the relevant accuracy requirements for the class of survey concerned, and which is used for the purpose of locating details to be shown on plans;

**'fluid material'** means any substance, excluding gas, that has a potential to flow, including water, slimes and mud;

**'hazardous service'** means any object, structure or installation rendering a service with a potential risk to *health* or safety;

**'plan(s)'** means any plan, section or projection required to be prepared by these Regulations;

**'professional geotechnical specialist'** means a person who is registered with-

- (a) the Engineering Council of South Africa as a Professional Civil Engineer and is registered in the subcategory of Geotechnical Engineering; or
- (b) the South African Council for Natural Scientific Professions as a Professional Scientist in the field of engineering geology;

**'reserve land'** means any piece of land over which a servitude is registered or reserved for possible registration of a servitude in respect of roads, railways, power lines, pipe lines, conveyor lines, canals, etc;

**'restricted area'** means any area where mining is restricted due to significant risk;

**'risk assessment'** means the hazard identification and risk assessment required in terms of section 11 of the Act;

**'safety pillar'** means every portion of a reef, mineral deposit or ground left in situ for the support and protection of the surface, objects thereon or underground workings;

**'sea'** means the sea as defined in the National Environmental Management: Integrated Coastal Management Act, 2008 (Act 24 of 2008);

**'survey point'** means any easily identifiable point located by localised surveying, other than a survey station;

**'survey station'** means any point that has been surveyed within the prescribed standards of accuracy; and

**'workings'** means any excavation made or being made for the purpose of searching for or winning minerals or for any purpose connected therewith.

[Regulation 17.1 inserted by Government Notice R1304 of 12 November 2004 and substituted by GN R447 of 27 May 2011.]

## GENERAL REQUIREMENTS FOR MINING AT SEA AND ON LAND

### 17.2 Appointment of competent persons

- (a) The *employer* must appoint a competent person to be in charge of surveying, mapping and mine plans at the mine, and if the services of more than one competent person are engaged, ensure that their functions do not overlap. The Chief Inspector of Mines may require the appointment of more than one competent person where in his opinion such an appointment is necessary.
- (b) The *employer* must in writing inform the Chief Inspector of Mines of the appointment of any competent person in terms of regulation 17(2)(a), and of the termination of any such appointment, within 7 days of the date of such appointment or termination. In the case of an appointment, the notification must include-
  - (i). the name of the competent person;
  - (ii). certified copies of all relevant qualifications of the competent person; and
  - (iii). whether the appointment of the competent person is full time or part time.
- (c) In the case of an underground mine, one competent person appointed under regulation 17(2)(a) must be able to reach the mine in the case of those emergencies and within such time(s), as determined in terms of the mine's risk assessment. Such emergencies and time(s) must be included in the mine's mandatory Code of Practice for Emergency Preparedness and Response.

### Appointment at two or more mines

- (d) The competent person appointed at any mine by the *employer* under regulation 17(2)(a) may not in addition be appointed under regulation 17(2)(a) as a competent person at any other mine, except with the written permission of the Chief Inspector of Mines and subject to such terms and conditions as the Chief Inspector of Mines may determine.

### Period permitted without a Competent Person

- (e) The *employer* must take reasonable measures to ensure that no mine is worked without a competent person appointed under regulation 17(2)(a) for more than 60 days in any period of 6 consecutive months. The *employer* must in writing appoint a suitably qualified person to perform the functions of the competent person under this Chapter during such period of 60 days or portion thereof, as the case may be.

[Reg. 17.2 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

## DUTIES AND RESPONSIBILITIES

### 17.3

- (a) The competent person appointed under regulation 17(2)(a), and the suitably qualified person appointed under regulation 17(2)(e) are not responsible for the accuracy of the surveying done before their appointments.
- (b) No person may withhold from the *employer* any survey records or plans prepared in terms of these Regulations.

[Reg. 17.3 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### 17.4 The *employer* must take reasonable measures to ensure, in all surveying and mapping done and all plans prepared for purposes of these Regulations by the competent person, that:

#### Units of Measure

- (a) all units of measure conform to the metric system, except angular measurements which must conform to the sexagesimal system;

#### Survey System

- (b) all mine survey systems conform to the National Control Survey System as determined by the Chief Director: Surveys and Mapping as contemplated in the Land Survey Act, Act 8 of 1997. The projection origin may be changed to reduce the numerical values of the co-ordinates. Survey systems established on a mine prior to 1 January 1999 may be retained provided that a tabulation of the co-ordinates of at least 3 (three) survey stations, in both the existing mine survey system and the National Control Survey System, are shown on every sheet comprising a plan;

#### Datum Plane (Mining on land)

- (c) elevations determined above and below ground on mines established after 12 November 2004, refer to mean sea level, based on the South African Land Levelling Datum as determined by the Chief Director: Surveys and Mapping as contemplated in the Land Survey Act, Act 8 of 1997;

#### Datum Plane (Mining at sea)

- (d) bathymetric elevations determined at sea refer to chart datum;

#### Colours and Sign Conventions

- (e) all plans conform to the conventional signs and colours provided by the Director: Mine Surveying;

### **Back up and storage of data**

- (f) if any plans required in terms of this Chapter are kept electronically, they are adequately backed up; and
- (g) all survey records are securely stored in a dry and fire proof place when not in use.

[Reg. 17.4 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

## **SAFETY PRECAUTIONS**

### **Responsibilities regarding safety precautions**

**17.5** The *employer* must take reasonable measures to ensure that the competent person referred to in regulation 17(2)(a) is at all times aware of-

- (a) workings which are being advanced;
- (b) surface structures or objects which may be affected by mining;
- (c) workings which are being abandoned or closed down, in order to allow the final surveying thereof;
- (d) all workings or any place or [sic] surface where there is, or is likely to be, a dangerous accumulation of fluid material, noxious or flammable gas; and
- (e) safety pillars that are being, or have been, removed.

[Reg. 17.5 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

**17.6** The *employer* must take reasonable measures to ensure that the competent person referred to in regulation 17(2)(a) in writing notifies the *employer*, which notification must be dated, of any workings being advanced to come within:

- (a) a horizontal distance of 100 (one hundred) metres from reserve land, buildings, roads, railways, dams, waste dumps or any other structure whatsoever including structures beyond the mining boundaries, or from any surface, which it may be necessary to protect in order to prevent any significant risk.
- (b) 50 (fifty) metres from any excavation, workings, restricted area or any other place where there is, or is likely to be a dangerous accumulation of fluid material, noxious or flammable gas. Such notification must include a sketch plan giving the distance to such place from the nearest survey station.

[Reg. 17.6 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

**17.7** The *employer* must take reasonable measures to ensure that-

- (a) no mining operations are carried out within a horizontal distance of 100 (one hundred) metres from reserve land, buildings, roads, railways, dams, waste dumps, or any other structure whatsoever including such structures beyond the mining boundaries, or any surface, which it may be necessary to protect in order to prevent any significant risk, unless a lesser distance has been determined safe by risk assessment and all restrictions and conditions determined in terms of the risk assessment are complied with;
- (b) workings coming within 50 (fifty) metres, from any other excavation, workings, restricted area or any other place where there is, or is likely to be a dangerous accumulation of fluid material, noxious or flammable gas are mined subject to such restrictions and stopped at such positions as determined by risk assessment;
- (c) where ground movement, as a result of mining operations, poses significant risk, an effective ground movement monitoring system is in place.
- (d) survey records and plans relating to conditions described in paragraphs (a) and (b) above, are made available to the persons doing the risk assessment.

[Reg. 17.7 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

**17.8** No person may erect, establish or construct any buildings, roads, railways, dams, waste dumps, reserve land, excavations or any other structures whatsoever within a horizontal distance of 100 (one hundred) metres from workings, unless a lesser distance has been determined safe-

- (a) in the case of the *employer*, by risk assessment and all restrictions and conditions determined in terms of the risk assessment are complied with; or
- (b) in the case of any other person, by a professional geotechnical specialist and all restrictions and conditions determined by him or her or by the Chief Inspector of Mines are complied with.

[Reg. 17.8 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

**17.8** The person(s) responsible for activities in terms of regulations 17(7)(a) and 17(8) must-

- (a) in the case of an *employer*, provide the Chief Inspector of Mines with the distance and accompanying restrictions and conditions for comment, and;
- (b) in the case of other persons, provide the Chief Inspector of Mines with the distance and accompanying restrictions and conditions for approval.

[Reg. 17.9 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

**17.10** No mining operations, erecting, establishment, or construction, as contemplated in regulations 17(7)(a) and 17(8) respectively, may take place until such written comment or approval, as referred to in 17(9)(a) and 17(9)(b), has been obtained.

[Reg. 17.10 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### **Boundary Pillars**

**17.11** The *employer* must take reasonable measures to ensure that on the inside of every mine boundary, continuous pillars are left standing (*in situ*) the width of which, measured horizontally and at right angles to the boundary line, must not be less than-

- (a) for underground coal mines, 15 (fifteen) metres;
- (b) for all other mines, 9 (nine) metres.

[Reg. 17.11 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

**17.12** The *employer* must take reasonable measures to ensure that no boundary pillars are worked or cut through unless written permission has been obtained from all relevant adjacent *employers* and the Principal Inspector of Mines, provided that in the absence of any adjacent *employer*, permission need only be obtained from the Principal Inspector of Mines to work or cut through such boundary pillars.

[Reg. 17.12 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### **Check Survey**

**17.13** Should the Director: Mine Surveying be of the view that there may be errors in any survey or plans constructed there from or where they do not conform to the standards of accuracy required by these Regulations, he or she may cause a check survey to be carried out. The cost of such check survey must be borne by the *employer* if it is proved that there are errors in any survey or plans constructed therefrom, or that they do not conform to the standards of accuracy required by these Regulations.

[Reg. 17.13 inserted by GNR1304 of 2004 and substituted by GNR447 of 2011.]

## **SURVEY PRACTICE ON LAND (SURFACE AND UNDERGROUND) AND AT SEA**

**17.14** The employer must take reasonable measures to ensure in all surveying and mapping done and all plans prepared for purposes of these Regulations by the competent person, that:

### **Survey Stations**

- (a) sufficient survey stations are established, so that all surface objects and all workings can be accurately surveyed. Each survey station must be clearly marked with a unique number and recorded in a register;

### **Standards of Accuracy: Surface and Underground**

- (b) the minimum standard of accuracy and class of survey for the fixing of survey stations on both horizontal and vertical planes are in accordance with the following formula:

$$A = 0,015 + \frac{S}{30000}$$

where S is the distance in metres between the known and the unknown survey station; provided that in the case of a traverse, after a check survey has been completed, the error in direction of a line between any two consecutive survey stations must not exceed 2 (two) minutes of arc, provided that the horizontal and vertical displacement between the measured position and final position of a survey station does not exceed 0,1 (zero comma one) metres;

- (i). the allowable error for a Primary Survey (Class A) is not greater than A metres. Primary Survey means any survey carried out for the purpose of fixing shaft positions, shaft stations, underground connections, upgrading of secondary surveys to primary surveys and establishing primary surface survey control;
- (ii). the allowable error for a Secondary Survey (Class B) is not greater than 1,5A metres. Secondary Survey means any survey carried out for the purpose of fixing main or access development, mine boundaries and establishing secondary surface survey control;
- (iii). the allowable error for a Tertiary Survey (Class C) is not greater than 3A metres. Tertiary Survey includes survey stations established from secondary survey stations for localised survey purposes;

(iv). the allowable error for a Localised Survey is not greater than 0,2 (zero comma two) metres in addition to the allowable error at the nearest survey station. Localised Survey means measurements taken from a survey network to locate surface or underground workings, structures and features. This includes normal tape triangulation for month-end measurements, plugging, offsetting and tachometric work;

#### **Accurate Representation on Plan**

(v). errors in representation on plan do not exceed 0,1% (zero comma one per cent) of the denominator of the scale of the plan, in addition to the allowable survey error at the nearest survey station or fixed position. Where accurate surveying is not possible due to significant risks, the estimated position of affected workings or objects must be indicated on the plan by broken lines and with reasons why accurate measurements could not be made;

#### **Standards of Accuracy at Sea**

(c) all fixed positions determined at sea for the purpose of locating detail to be shown on plans, comply with the standards as set out in column 1(b) of Table 1 in the Minimum Standards of the International Hydrography Organisation (IHO) Standards, 5th Edition, dated February 2008;

#### **Details required on Plans**

(d) the following detail is depicted on all plans where applicable-

- (i). the name of the reef, lode or mineral bed;
- (ii). planes of sections or planes of plans;
- (iii). a subject heading indicating the name of the mine and the name of the plan;
- (iv). the name and signature of the competent person for purposes of regulation 17(2)(a) against the relevant date of updating;
- (v). the identification number allotted by authorities;
- (vi). the survey system and co-ordinates of origin used;
- (vii). a north point;
- (viii). the scale of the plan;
- (ix). a legend illustrating colours and conventional signs not provided for by the Director: Mine Surveying;
- (x). co-ordinate lines sufficient in number for the scale of the plan to be verified;
- (xi). in the case of mining at sea, also geographic co-ordinates of the centre point of the sheet (longitude and latitude);
- (xii). in the case of mining at sea, also the relationship between the South African Land Levelling Datum and the latest chart datum determined;

### **Material and Size of the Plans**

- (e) all plans are drawn on durable transparent draughting material on sheets of a size not greater than AO as defined by the International Organisation for Standardisation. The Director: Mine Surveying may request in the case of plans produced by means of computer aided draughting (CAD), that such plans be produced on suitable draughting material;

### **Scale of Plans - Land**

- (f) all plans are drawn to a scale of 1:1 500 in the case of a coal mine, and 1:1000 in the case of any other mine, unless specifically provided otherwise in these Regulations;

### **Scale of Plans - Sea**

- (g) in the case of mining at sea, the general plan referred to in regulation 17(25) is drawn to a legible scale;

### **Plans to be Kept Up to Date**

- (h) plans are at all times correct to within 12 (twelve) months, except for the plans showing the workings which must at all times be correct to within 3 (three) months. In the case of offshore prospecting and mining, plans must at all times be correct to within 6 (six) months;

### **Inventory of Plans**

- (i) an inventory of all plans and all copies called for in terms of regulation 17(26) is kept, showing the following details-
  - (A) the name of the mine;
  - (B) the name and number of the plan;
  - (C) the date of the last updating of the plan and the name of the competent person for purposes of regulation 17(2)(a);
  - (D) the relevant details where a plan has been superseded; and

### **Superseded Plans**

- (j) when a plan or sheet is superseded by another plan or sheet, the old and the new plan are referenced accordingly.

[Reg. 17.14 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

## RESPONSIBILITY FOR MINE PLANS

- 17.15** The *employer* must take reasonable measures to ensure that the competent person referred to in regulation 17(2)(a)-
- (a) constructs accurate plans, as contemplated in regulations 17(16) to 17(25), which are readily available to the *employer*. Such plans must cover all restricted areas and the areas where the surface infrastructure and workings occur; and
  - (b) determines the accuracy of any plan or drawing which was not prepared by him or her, where any inaccuracy on any such plan or drawing may create a risk of endangering the *health* or safety of any persons.

[Reg. 17.15 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

## PLANS TO BE KEPT

### Index Key Plan

- 17.16** A legible index key plan, showing the areas covered by the relevant plan sheets, the mine boundaries and the farm names and boundaries within and adjacent to the mine, or this detail may be shown on every plan sheet as an inset key plan drawn to a legible scale.

[Reg. 17.16 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### Surface Plan

- 17.17** A plan of the surface showing the boundaries of the mining area, names of adjacent mining areas, the primary surface survey stations, outcrops and dips of the mineral deposits, perimeters of all surface mining, shafts, openings, rescue boreholes, subsidence or cavities, areas of restricted mining affecting the surface, any hazardous services whether on surface or buried and every surface object, structure or reserve land which requires protection against mining.

[Reg. 17.17 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### Surface Contour Plan

- 17.18** A surface contour plan showing relevant mine and farm boundaries, original surface contours, boreholes and watercourses.

[Reg. 17.18 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### **Mine Ventilation and Rescue Plan**

**17.19** At every underground mine, a ventilation and rescue plan of the workings, taking into consideration the requirements of regulation 17(22), drawn to a legible scale and depicting the ventilation districts, the direction of air currents, the quantity of air circulating in such ventilation district, the position of each permanent fan, door, regulator, crossing, stopping, telephone, refuge bay, rope-aided or normal escape route, safe place, first aid room, main water valve, fire fighting equipment site, emergency power source and any area sealed off for fire or spontaneous combustion.

- (a) A square grid, lettered horizontally and numbered vertically, drawn to a suitable scale must be shown on the plan contemplated in regulation 17(19).
- (b) The information relating to the ventilation aspects of the plan in subregulation (19) must be provided by the person authorised by the *employer* to do so and must be certified as accurate on the plan by that person.
- (c) An updated hard copy of the plan contemplated in regulation 17(19) must be immediately available at the mine for rescue operation purposes. In the case of a coal mine, an updated hard copy must be submitted to the Principal Inspector of Mines at intervals not exceeding 3 (three) months.

[Reg. 17.19 inserted by GNR.1304 of 2004 and substituted by G NR.447 of 2011.]

### **Mine Residue Deposit Plans**

**17.20** Plans (including sections) showing mine residue deposits containing fluid material.

[Reg. 17.20 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### **Geological Plan**

**17.21** A plan, drawn to a legible scale, depicting geological features that could affect mining, or these features may be shown on the plan(s) referred to in regulation 17(22).

[Reg. 17.21 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### **Plans of the Workings**

**17.22** Plans of the workings showing the following: boundaries of the mining area; names of adjacent mining areas; outlines and dips of the workings, date of measurement on the excavated side of the outline of the workings, heights representative of workings, survey stations; relevant survey points; areas in which mining has been restricted or prohibited; dams; explosives magazines; lines indicating the planes of sections; faults; dykes and any containment wall or any explosion proof seal, showing the designed static pressure in Kilo Pascal (kPa) of such walls and seals.

(a) In the case of underground mines:

- (i). Where a bedded mineral deposit has an average inclination to the horizontal of more than 60° (sixty degrees), a plan showing the projection of the workings onto a vertical plane parallel to the average strike.
- (ii). Where multiple bedded mineral deposits overlie each other, the workings thereof must be shown on separate plans.
- (iii). Where a massive or irregular ore body is worked, level plans and vertical sections through the workings must be kept.

(b) In the case of surface mines:

- (i). Where bedded mineral deposits are worked by surface mining methods, there must be shown on the surface plan sufficient data regarding the thickness and elevation of every mineral deposit worked in a suitable grid pattern. As an alternative to the grid pattern data, vertical sections may be kept, the lines of which must be indicated on the surface plan.
- (ii). Where massive or irregular deposits are worked, level plans or vertical sections or a composite plan showing all the bench outlines, must be kept.

[Reg. 17.22 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### **Level Plans**

**17.23** Level plans must show the outline of all workings at suitably chosen elevations. In the case of underground mines, the detail required in regulation 17(22) must be shown.

[Reg. 17.23 inserted by GNR.1304 of 2004, amended by GNR.89 of 2008 and substituted by GNR.447 of 2011.]

### **General Plan - Mining on Land**

**17.24** A general plan, showing the detail required in regulations 17(17), 17(18) and 17(22)(a) on one plan instead of on three separate plans, or a general surface plan showing the detail required in regulations 17(17) and 17(18) on one plan instead of two separate plans, may be constructed.

[Reg. 17.24 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### **General Plan - Mining at Sea**

**17.25** A general plan showing the boundaries of the mining area, the names of adjacent mining areas, bathymetric contours, dates of mining and the locality of semi-permanent production rigs and platforms.

[Reg. 17.25 inserted by GNR1304 of 2004 and substituted by GNR.447 of 2011.]

### **Departmental copies of plans**

**17.26** The *employer* must provide the Principal Inspector of Mines annually with updated copies of the plans. In the case of computer aided draughting (CAD), legible plans in book form (approximately A3 size) or a copy of the index key plan referred to in regulation 17(16), indicating additionally the outlines of the workings as well as the surface infrastructure, and a copy of the back-up referred to in regulation 17(4)(f) must be provided.

[Reg. 17.26 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

### **Unsatisfactory Plans**

**17.27** Where in the opinion of the Director: Mine Surveying plans are deficient, he or she may have the mine surveyed and new plans prepared at the expense of the *employer*.

[Reg.17.27 inserted by GNR1304 of 2004 and substituted by GNR.447 of 2011.]

### **Plans Confidential**

**17.28** The Principal Inspector of Mines and the Director: Mine Surveying must keep information contained in any plan confidential and may only release such information in accordance with the Promotion of Access to Information Act, 2000 (Act 2 of 2000).

[Reg.17.28 inserted by GNR1304 of 2004 and substituted by GNR.447 of 2011.]

## **MINE CLOSURE**

### **Plans brought Up to Date**

**17.29** The *employer* must take reasonable measures to ensure that, before a mine is abandoned, closed or rendered inaccessible-

- (a) the plans and departmental copies thereof referred to in regulation 17(26) are brought up to date by the competent person referred to in regulation 17(2)(a) and that the Director: Mine Surveying is notified to inspect such plans and the copies thereof for approval; and

- (b) where the surface has been disturbed by mining, a rehabilitation plan is drawn, to a legible scale, showing the final surface contours and established water courses and that the Director: Mine Surveying is notified to inspect such plan for approval.

[Reg.17.29 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

#### **Plans and Books to be handed in**

- 17.30** The *employer* must take reasonable measures to ensure that updated hard copies of the plans, copies referred to in regulation 17(26) and inventories thereof on durable draughting material, together with the survey station register are handed in at the office of the Director: Mine Surveying, following the inspection and approval of the plans as contemplated in regulation 17(29).

[Reg. 17.30 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

#### **Updating of Surface Plans**

- 17.31** The *employer* must take reasonable measures to ensure, where rehabilitation is completed after cessation of mining, that the surface and rehabilitation plans contemplated in regulations 17(17) or (24) and (29)(b) are updated upon such completion.

[Reg. 17.31 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

#### **Certificate of Compliance**

- 17.32** The Director: Mine Surveying must issue a certificate of compliance with the requirements of regulations 17(29) to 17(31) to the *employer* within 60 (sixty) calendar days of compliance in respect of the said regulations.

[Reg. 17.32 inserted by GNR.1304 of 2004 and substituted by GNR.447 of 2011.]

## **CHAPTER 18**

### **TRIPARTITE INSTITUTIONS**

[Chapter 18 promulgated by GNR.93 of 1997.]

#### **18.1 Nomination of members to represent employees and owners [18]**

- (1) Nominations for the appointment of members of every tripartite institution are invited by notice in the Gazette from-
  - (a) every registered trade union with employees as members to represent employees; and
  - (b) every employers' organisation with owners as members to represent owners.

[Section 98(1)(zC) empowers the Minister to make regulations for the appointment of members to the Council]

[Section 98(zD) empowers the Minister to make regulations for the appointment of members to the Mining Qualifications Authority]

- (2) Every nomination must be submitted in writing within 30 days of the notice referred to in subregulation (1) and must contain-
  - (a) the name, address and a short curriculum vitae of the nominee;
  - (b) the tripartite institution for which the person is nominated;
  - (c) if submitted by-
    - (i). a registered trade union, a statement of the number of employees who are members of the union; or
    - (ii). an employer's organisation, a statement of the number of employees employed by the members of the organisation; and
  - (d) any other information or documentation required in the notice.
- (3) Any registered trade union or *employer's* organisation that has submitted a nomination must, within 15 days of receiving a request from the Minister, provide such further information or documentation as the Minister may reasonably request regarding such nomination, including but not limited to information or documentation necessary to verify a statement contemplated in subregulation (2).
- (4) The nomination period referred to in subregulation (2) may be extended.

## **18.2 Appointment of members representing employees**

The Minister must appoint persons, nominated under regulation 18.1(2) to represent employees as members of tripartite institutions so that-

- (a) the members are all nominated by agreement between registered trade unions representing at least 75% of employees belonging to such trade unions in the mining industry; or
- (b) failing agreement in terms of paragraph (a)-
  - (i). at least half the members are persons nominated by a registered trade union or unions representing the majority of employees belonging to registered trade unions in the mining industry; and
  - (ii). the rest are persons nominated by registered trade unions with members employed in the mining industry and appointed in accordance with the significance in the mining industry of the trade unions concerned.

### **18.3 Appointment of members representing owners**

The Minister, must appoint persons, nominated under regulation 18.1(2) to represent owners in the mining industry, as members of tripartite institutions so that-

- (a) the members are all nominated by agreement between *employers'* organisations whose members employ at least 75% of employees in the mining industry; or
- (b) failing agreement in terms of paragraph (a)-
  - (i). at least half the members are persons nominated by an *employer's* organisation or organisations whose members employ the majority of the employees in the mining industry; and
  - (ii). the rest are persons nominated by *employers'* organisations and appointed in accordance with the significance in the mining industry of the organisations concerned.

### **18.4 Appointment of members representing departments of State**

The Minister, after consulting the *Chief Inspector*, must appoint the members representing department of the State on every tripartite institution.

### **18.5 Term of office of members**

- (1) A member of a tripartite institution is appointed for a period of three years.
- (2) Despite subregulation (1), a person appointed to replace a member of a tripartite institution who has vacated office before the expiry of such member's term of office, is appointed for the remainder of that member's term of office.
- (3) Every member of a tripartite institution is eligible for reappointment after the expiry of such member's term of office.
- (4) If for any reason a person to replace a member of a tripartite institution is not appointed at the expiry of the period of office of such member, the Minister may extend the period of office of such member for a period not exceeding six months.

### **18.6 Filling of casual vacancies**

- (1) If a member vacates office in terms of the Constitution of the tripartite institution before the expiry of such member's terms of office, subject to subregulation (2)-
  - (a) the party that nominated the member is invited to nominate a replacement; and
  - (b) the Minister must appoint the person nominated as a member of the tripartite institution concerned.

[Section 97(3) empowers the Minister, after consulting the Council to add to this Act, Schedule 5 containing the constitution of the Council and its permanent committees]

- (2) If the party contemplated in subregulation (1)(a) no longer satisfies the representative requirements of regulation 18.2 or 18.3-
  - (a) nominations of persons to fill the vacancy are invited in terms of regulation 18.1; and
  - (b) the Minister must appointed a person to fill the vacancy in terms of regulation 18.2 or 18.3.
- (3) If a member representing a department of the State on a tripartite institution vacates office before the expiry of such member's term of office, a person must be appointed to fill the vacancy in terms of regulation 18.4.

#### **18.7 Publication of names of members**

The names of persons appointed in terms of these Regulations, their period of office and the parties who they represent are published by notice in the Gazette.

## **CHAPTER 19**

### **UNDERWATER MINING**

[Regulations not yet promulgated]

## **CHAPTER 20**

### **DEFINITIONS**

[Chapter 20 promulgated by GNR.93 of 1997 and substituted by GNR.846 of 1997.]

#### **Definitions**

In these Regulations a word or phrase to which a meaning has been assigned in this Act has that meaning and, unless the context otherwise indicates-

**'audiogram'** means a chart, graph or table indicating the hearing threshold levels of an individual as a function of frequency (viz. 0.5, 1, 2, 3, 4, 6 and 8 kilohertz), as determined during a measurement of a person's hearing threshold levels by means of monaural, pure-tone, air-conduction threshold tests;

[Definition inserted by GNR.786 of 2002]

**'braking system'** means a device or combination of devices capable of reducing the speed of a locomotive or train to a standstill including emergency brake, park brake and service brake;

[Definition inserted by GNR.583 of 2004]

**'cardio-respiratory examination'** means a clinical examination of the cardio-respiratory system including a full size chest x-ray and a lung function test;

[Definition inserted by GNR.1792 of 2003]

**'dynamic type test'** means the test conducted on a train to determine the deceleration rate and braking efficiency;

[Definition inserted by GNR.583 of 2004]

**'full size chest x-ray'** means a chest x-ray using a photographic plate measuring 35 cm x 35 cm or 35 cm x 42 cm or the digital equivalent;

[Definition inserted by GNR.1792 of 2003]

**'locomotive'** means a self-propelled railbound machine which requires either a driver for manual operation or an operator for automatic operation;

[Definition inserted by GNR.583 of 2004]

**'lung function test'** means the measurement of the inspired and expired volume of air by means of a spirometry;

[Definition inserted by GNR1792 of 2003]

**'Principal Inspector of Mines'** means the officer appointed by the *Chief Inspector* to be in charge of *health* and safety in any region established by Government Notice R92 of 15 January 1997; and  
**'rolling stock'** means any railbound equipment that is not self-propelled;

[Definition inserted by GNR.583 of 2004]

**'static test'** means the test carried out to determine the compliance of the brake holding power of a locomotive braking system measured against the design specification or an appropriate safety standard;

[Definition inserted by GNR.583 of 2004]

**'train'** means one or more locomotives and rolling stock, all attached;

[Definition inserted by GNR.583 of 2004]

**'tripartite institution'** means the Council and its permanent committees and the Mining Qualifications Authority.

## CHAPTER 21 FORMS

[Chapter 21 promulgated by GNR134 of 2001.]

*Form DME 132 (SAMRASS 1)*  
ACCIDENT AND DANGEROUS OCCURRENCE REPORT

SCHEDULE  
CHAPTER 21

DME 132  
(SAMRASS 1)

DEPARTMENT: MINERALS AND ENERGY ACCIDENT AND DANGEROUS OCCURRENCE REPORT											
This form must be completed for reportable accidents in terms of regulations 23.1(a) (b) (c) and (d) and Dangerous Occurrences in terms of regulation 23.4, sections E and F, need not be completed in the event of a Dangerous Occurrence. Attach forms SAMRASS 2, 3, 5, 6, 7 and 8, where applicable.											
<b>SECTION A: EMPLOYER DETAILS</b>											
1	NAME OF MINE										
2	DME MINE CODE										
3	MAIN COMMODITY										
<b>SECTION B: ACCIDENT OR DANGEROUS OCCURRENCE DETAILS</b>											
1	Mine Accident or Dangerous Occurrence Number	YEAR				ACC/DO REF NO				SHAFT	
		Y	Y	Y	Y	N	N	N	N	S	S
2	Number of persons killed										
3	Number of persons totally disabled										
4	Number of persons injured										
5	Date of accident or dangerous occurrence (use YYYY/MM/DD format)	Y	Y	Y	Y	M	M	D	D		
6	Time of accident or dangerous occurrence					H	H	M	M		
7	Location of accident or dangerous occurrence										
8	Name of working place										
9	Depth below surface (in metres)										
10	Section										
11	Description of accident or dangerous occurrence in words										
12	Accident classification code										
13	Dangerous Occurrence Classification code										
14	Did accident or dangerous occurrence occur during normal working hours or overtime?					Normal		O/Time			
15	Did accident or dangerous occurrence happen at normal workplace?					Y		N			
16	Average number of persons at work during the previous month	SURF OPS	U/G	O/CAST	SURF MIN	MARINE					

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SECTION C: RESPONSIBLE PERSONS			
NAME	IDENTITY NUMBER/PASSPORT NUMBER	CERTIFICATE No.	OCCUPATION
1st LEVEL SUPERVISOR			
2nd LEVEL SUPERVISOR			
3rd LEVEL SUPERVISOR			
4th LEVEL SUPERVISOR			
Name of Manager	Designation	Signature	Date
			Y Y Y Y M M D D

  

SECTION D: FOR USE BY THE DEPARTMENT OF MINERALS AND ENERGY										
1. Regional accident or dangerous occurrence number						Y	Y	Y	R N N N	
2. Date report						Y	Y	Y	R N N N	
3. Type of accident or dangerous occurrence										
4. Accident or dangerous occurrence register by						Date	Y	Y	Y	M M D D
5. Inquiry type										
6. Probable cause of accident or dangerous occurrence										
7. Contravention in inspector's opinion								YES	NO	
8. If yes, act/regulation contravened										
9. Administrative fine recommended?								YES	NO	
10. Date evaluation form completed						Y	Y	Y	R N N N	
INSPECTORATE DETAILS		NAME (IN BLOCK LETTERS)	DATE			SIGNATURE				
11. Inspector of mines										
12. Senior inspector of mines (mining)										
13. Senior inspector of mines (mining equipment)										
14. Are criminal proceedings envisaged?								Yes	No	

Minerals and Energy for Development Prosperity

DEPARTMENT: MINERALS AND ENERGY  
ROCKBURST AND FALL OF GROUND ACCIDENT

DME 136  
(SAMRASS 3)

<b>A. DETAILS OF MINE</b>												
MINE NAME												
MINE'S ACCIDENT NUMBER		Y	Y	Y	Y	N	N	N	Shaft No.			
ACTIVITY												
DATE OF ACCIDENT					Y	Y	/	M	M	/	D	D
CAUSE OF ACCIDENT												
DEPTH BELOW SURFACE (m)												
MINING METHOD												
<b>B. DETAILS OF ACCIDENT</b>												
<b>B.1. LOCATION</b>												
DESCRIPTION OF WORKING PLACE												
DISTANCE FROM FACE (m)												
DISTANCE FROM PANEL BOTTOM STRIKE GULLY (m)												
DIMENSIONS OF STOPE	STRIKE SPAN (m)			DIPSPAN (m)			STOPING (m)					
DIMENSIONS OF OTHER EXCAVATIONS	HEIGHT (m)			WIDTH (m)			LENGTH (m)					
DISTANCE FROM REEF (m)												
<b>B.2. SITE DESCRIPTION</b>												
QUALITY OF EXCAVATION:	.....											
.....												
.....												
<b>B.3. TEMPORARY SUPPORT</b>												
<b>B.3.1. ACCORDING TO CODE OF PRACTICE</b>												
TYPE OF SUPPORT												
SIZE OF SUPPORT (m)												
SPACING OF SUPPORT (m)												
ROWS OF SUPPORT												
DISTANCE FROM FACE (m)												
<b>B.3.2. OBSERVED AFTER ACCIDENT</b>												
TYPE OF SUPPORT												
SIZE OF SUPPORT (m)												
SPACING OF SUPPORT (m)												
ROWS OF SUPPORT												
DISTANCE FROM FACE (m)												

# Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

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**DEPARTMENT: MINERALS AND ENERGY**  
**Form DME 200 (SAMRASS 2)**  
**INJURY REPORT FORM**

DME 200  
 (SAMRASS 2)

This form must be completed for reportable accidents in terms of regulations 23.1(a), (b), (c) and (d). Sections E and F, need not be completed in the event of a Dangerous Occurrence. Attach forms SAMRASS 2, 3, 5, 6, 7 and 8, where applicable.											
Name of mine											
Mine Accident or Dangerous Occurrence Number	YEAR					ACC/DO REF NO			SHAFT		
	Y	Y	Y	Y	N	N	N	N	S	S	
Date of accident or dangerous occurrence (use YYYY/MM/DD format)					Y	Y	Y	Y	M	M	
Regional accident or dangerous occurrence number					Y	Y	Y	R	N	N	
					N	N	I				
<b>SECTION E: EMPLOYEE'S DETAILS</b>											
<b>NOTE: THIS SECTION NEED NOT BE COMPLETED FOR A DANGEROUS OCCURRENCE ACCIDENT</b>											
1. Surname											
2. Full first names											
3. Industry number											
4. Pt/company number											
5. Identity/passport number											
6. Date of birth (use YYYY/MM/DD format)	Y	Y	Y	Y	M	M	M	D	D		
7. Country of origin											
8. Population group	01	02	03	04							
9. Was the injured a permanent employee ("E"), a contractor ("C") or a casual ("T")?	E		C		T						
10. Name of contracting company (if applicable)											
11. Male or female						M	F				
12. Normal occupation at time of accident											
13. Total experience in current occupation	Y	Y	M	M							
14. Was injured carrying out normal duties at time of accident?											
15. Date first employed with current employer (use YYYY/MM/DD format)	Y	Y	Y	Y	M	M	M	D	D		
16. Date last shift worked (use YYYY/MM/DD format)	Y	Y	Y	Y	M	M	M	D	D		
17. Date resumed work (use YYYY/MM/DD format)	Y	Y	Y	Y	M	M	M	D	D		
18. If fatal, date of death (use YYYY/MM/DD format)	Y	Y	Y	Y	M	M	M	D	D		
<b>SECTION F: INJURY DETAILS</b>											
<b>THIS SECTION NEED NOT BE COMPLETED FOR A DANGEROUS OCCURRENCE ACCIDENT</b>											
1. Task: (person injured or killed while performing											
2. Activity: (injured or killed while.....)											
3. Nature of injury											
4. Part of body injured											
5. Type of accident of individual fatal (F), totally disabling (T), injury (I)	F	T	I								
6. Allocated days lost (to be completed by DME)											

<b>B.4. PERMANENT SUPPORT</b>						
<b>B.4.1. ACCORDING TO CODE OF PRACTICE</b>						
TYPE OF SUPPORT						
SIZE OF SUPPORT (m)						
SPACING OF SUPPORT (m)						
DISTANCE FROM FACE (m)						
<b>B.4.2. OBSERVED AFTER ACCIDENT</b>						
TYPE OF SUPPORT						
SIZE OF SUPPORT (m)						
SPACING OF SUPPORT (m)						
DISTANCE FROM FACE (m)						
<b>B.5. REGIONAL SUPPORT</b>						
<b>B.5.1. ACCORDING TO CODE OF PRACTICE</b>						
TYPE OF SUPPORT						
SIZE OF SUPPORT (m)						
SPACING OF SUPPORT (m)						
<b>B.5.2. OBSERVED AFTER ACCIDENT</b>						
TYPE OF SUPPORT						
SIZE OF SUPPORT (m)						
SPACING OF SUPPORT (m)						
COMMENTS ON SUPPORT:						
COMMENTS ON EFFECTIVE USE:						
<b>B.6. INSTRUMENTATION</b>						
INSTRUMENT	CODE	WARNING SIGNAL				
		YES	NO			
		YES	NO			
		YES	NO			
		YES	NO			
		YES	NO			

Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

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B.7. GEOLOGICAL DETAILS									
REEF BEING MINED	CODE:				DESCRIPTION:				
					ROCK TYP	COD		U.C.S. STRENGTH	
IMMEDIATE HANGING WALL					MPs				
IMMEDIATE FOOT WALL					MPs				
REEF/ORE					MPs				
RELEVANT GEOLOGICAL STRUCTURE									
SHORTEST DISTANCE FROM SCENE TO DISTURBENCE (m)									
COMMENT ON DISTANCE:	.....								
MEASURED OR ESTIMATED FIELD STRESS STATE									
INDUCED FRACTURES									
B.8. FALL OF GROUND									
DIMENSIONS OF FALL	HEIGHT (m)				WIDTH (m)			LENGTH (m)	
BOUNDRARIES OF FALL									
B.9. ROCKBURST									
TOTAL SIZE OF AFFECTED AREA (m <sup>2</sup> )					ESTIMATED MAXIMUM CLOSURE				
B.9.1 EXTENT OF DAMAGE									
HANGING WALL DAMAGE (m <sup>2</sup> )									
FOOTWALL DAMAGE (m <sup>2</sup> )									
SIDEWALL DAMAGE (m <sup>2</sup> )									
ROOF SUPPORT UNITS DAMAGED									
SUSPECTED BURSTING MECHANISM									
SUSPECTED MECHANISM BASED ON									
DISTANCE BETWEEN HYPOCENTRE AND ROCKBURST DAMAGE (m)									
B.10. GENERAL MINE LAYOUT									
MINE LAYOUT							CODE	CONTRIBUT	
								YES NO	
								YES NO	
								YES NO	
								YES NO	
								YES NO	
								YES NO	
C. SEISMIC EVENT DETAIL									
REFERENCE NUMBER									
HYPOCENTRE (m)	X	Y	Z	LOCATION MAGNITUDE					
LOCATION ERROR (m)				M	M	SEISMIC MOMENT (Nm)			
TIME	H	H		M	M	ENERGY RADIATED: S-WAVE			
ENERGY RADIATED: P-WAVE (J)									
SOURCE RADIUS (m)									
STATIC STRESS DROP (MPa)									
PEAK ACCELERATION (g)									
DISPLACEMENT (cm)									
C.1. SEISMIC MOMENT RELEASED	1 WEEK				1 MONTH				AVERAGE
PER 1m OF FACE ADVANCE (N/m/m)									
PER 11 OF ROCK OUTPUT WITHIN 300m RADIUS									

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D. SEISMIC HISTORY		MAGNITUDE					
WITHIN 300M RADIUS OF SENE OF THE ACCIDENT		HISTORY DETAIL	< 0	0-1	1-2	> 2	TOTAL
1 DAY BEFORE ACCIDENT	1. NUMBER OF SEISMIC EVENTS						
	2. ENERGY RELEASED: P-WAVE (J)						
	3.	S-WAVE (J)					
	4. SEISMIC MOMENT RELEASED (Nm)						
	5. STATIC STRESS DROP (Mpa)						
	6. MAX. ENERGY INDEX (E-obs/E-expec)						
1 Week before Accident	1. NUMBER OF SEISMIC EVENTS						
	2. ENERGY RELEASED: P-WAVE (J)						
	3.	S-WAVE (J)					
	4. SEISMIC MOMENT RELEASED (Nm)						
	5. STATIC STRESS DROP (Mpa)						
	6. MAX. ENERGY INDEX (E-obs/E-expec)						
6 Months before Accident	1. NUMBER OF SEISMIC EVENTS						
	2. ENERGY RELEASED: P-WAVE (J)						
	3.	S-WAVE (J)					
	4. SEISMIC MOMENT RELEASED (Nm)						
	5. STATIC STRESS DROP (Mpa)						
	6. MAX. ENERGY INDEX (E-obs/E-expec)						
<b>D.1. BEFORE ACCIDENT</b>		1 WEEK			1 MONTH		AVERAGE FOR LAST 6 MONTH
<b>E. COMPLETED BY</b>							
NAME		SIGNATURE		DATE	/		
Designation		SIGNATURE		DATE	/		

Minerals and Energy for Development and Prosperity

DEPARTMENT: MINERALS AND ENE

This form must be completed for reportable accidents in terms of regulation 23.1(e)

Name of Mine:

Month.....  
Subjects known on this Exam are enclosed in the Code Book

Date of \_\_\_\_\_

DME 201  
(SAMRASS 4)

DME Mine Code:

**DEPARTMENT: MINERALS AND ENERGY**

**Form DME 133 (SAMRASS 5)**

**EXPLOSIVES**

Complete a form for each accident involving explosives and attach this to form SAMRASS 1

DME 133  
(SAMRASS 5)

Regional Accident or Dangerous Occurrence No.	Y	Y	Y	Y	R	N	N	N	N	I
---	---	---	---	---	---	---	---	---	---	---

MINE NAME										
MINE'S ACCIDENT OR DANGEROUS OCCURRENCE NUMBER	Y Y Y Y N N N N Shaft NO									
TYPE OF EXPLOSIVES										
SUPPLIER OF EXPLOSIVES										
RELATIVE ENERGY										
DETINATION										
TYPE OF DETONATOR										
SUPPLIER OF DETONATOR										
TYPE OF FUSE										
SUPPLIER OF FUSE										
PRIMER CARTRIDGE										
LENGTH OF CARTRIDGE (MM)										
DIAMETER OF CARTRIDGE (MM)										
DIAMETER OF SHOTHOLE										
METHOD USED TO DETECT MISFIRES										
EXPERIENCE OF MINER	Y Y M M									
CAUSE OF EXPLOSION										

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**DEPARTMENT: MINERALS AND ENERGY**  
*Form DME 134 (SAMRASS 6)*  
**FIRE**

DME 134  
(SAMRASS 6)

Regional Accident or Dangerous Occurrence No.	Y	Y	Y	Y	R	N	N	N	I
---	---	---	---	---	---	---	---	---	---

MINE NAME													
MINE'S ACCIDENT OR DANGEROUS OCCURRENCE NUMBER		Y	Y	Y	Y	N	N	N	N	Shaft No.			
DATE FIRE DETECTED						Y	Y	Y	Y	M	M	D	D
TIME FIRE DETECTED						H H : M M							
BY WHOM DETECTED													
OCCUPATION OF PERSON													
WHAT BURNT?													
NUMBER OF PROTO TEAMS CALLED OUT													
NUMBER OF PROTOTEAMS SENT UNDERGROUND													
SEALED OFF											Yes	No	
TIME TAKEN						D	D	:	H	H	:	M	M
INDIRECT COST													
DIRECT COST													
LOSS IN PRODUCTION (Time)													
REPORTABLE CASUALTIES	KILLED				DISABLED			INJURED					
DID CODE OF PRACTICE CATER FOR PREVENTION OF FIRE?											Yes	No	
WAS THERE ANY NEGLIGENCE?											Yes	No	
WERE PERSONS ENDANGERED?											Yes	No	
WERE SELF RESCUERS USED?											Yes	No	
IS PROSECUTION ENVISAGED?											Yes	No	
IOM SIGNATURE:	.....										DATE:	.....	

Minerals and Energy for Development and Prosperity

## Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

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**DEPARTMENT: MINERALS AND ENERGY**

*Form DME 135 (SAMRASS 6)*

**SUBSIDENCE (COAL MINES)**

Complete a form for each subsidence andives and attach this to form to form SAMRASS 1 Form.

DME 135  
(SAMRASS 7)

MINE NAME													
MINER'S ACCIDENT OR DANGEROUS OCCURRENCE NUMBER		Y	Y	Y	Y	N	N	N	N	Shaft No.			
DATE DETECTED						Y	Y	Y	Y	M	M	D	D
MINING METHOD													
MAXIMUM DEPTH OF SUBSIDENCE (m)													
VENTILATION PLAN GRID REFERENCE													
INFLUENCE ON UNDERGROUND WORKINGS													
MINING PARAMETERS:	PLANNED MINING PARAMETERS:				ACTUAL MINING PARAMETERS:								
ROAD WIDTH:													
MINING HEIGHT (m)													
PILLAR CENTRES (m)													
PILLAR SIZE(m)													
BARRIER PILLAR (m)													
SAFETY FACTOR													
PANEL WIDTH (m)													
PANEL ROADS													
% OVERMINED													
GEOLOGY													
SEAM													
INFLUENCE ON STRUCTURES													
ACTION TO BE TAKEN													
IGM SIGNATURE: ..... DATE: .....													

Minerals and Energy for Development and Prosperity

Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

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**DEPARTMENT: MINERALS AND ENERGY  
HEAT STROKE / HEAT EXHAUSTION QUESTIONNAIRE**

Complete a form for each person suffering from heat stroke/Heat exhaustion and attach this form to form SAMRASS 1

DME 137  
(SAMRASS 8)

REGIONAL ACCIDENT NO.	Y	Y	Y	Y	R	N	N	N	N	I
-----------------------	---	---	---	---	---	---	---	---	---	---

A. PERSONAL DETAILS												
NAME OF MINE												
MINE'S ACCIDENT OR DANGEROUS OCCURRENCE NUMBER			Y	Y	Y	Y	N	N	N	Shaft No.		
SURNAME			FIRST NAME									
OCCUPATION			LENGTH OF TIME WORKED IN AREA		H	H	:	M	M	:	S	S

B. EXPERIENCE (OTHER MINES)

MINE	PERIOD WORKED				OCCUPATION			
	Y	Y	/	M	M	M	M	M
	Y	Y	/	M	M			
	Y	Y	/	M	M			
	Y	Y	/	M	M			
	Y	Y	/	M	M			

C. HEAT STRESS ACCLIMATIZATION

METHOD OF ACCLIMATIZATION ON MINE												
WAS ACCLIMATIZATION PERIOD EVADED IN ANY WAY?											YES	NO
ACCLIMATIZATION DETAILS												
TIME TAKEN												
TEMPERATURE												
DETAILS REGARDING DATES, TEMPERATURE AND MASS RESPONSES DURING THE ACCLIMATIZATION PROCEDURE, TO BE OBTAINED FROM THE ACCLIMATIZATION CENTRE	H	H	:	M	M							
	H	H	:	M	M							
	H	H	:	M	M							
	H	H	:	M	M							

D. SYMPTOMS, ETC

SIGN OF ILLNESS					YES	NO			
LENGTH OF TIME WORKED BEFORE COLLAPSE					H	H	:	M	M
APPEARANCE NORMAL								YES	NO
SIGN OF FATIGUE								YES	NO
DRINKING WATER AVAILABLE								YES	NO
WATER DRUNK								YES	NO
SIGN OF COLLAPSE								YES	NO
SWEATING								YES	NO

## Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

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DAY OF COLLAPSE (1 – MONDAY, 2 – TUESDAY, 3 – WEDNESDAY, 4 – THURSDAY, 5 – FRIDAY, 6 – SATURDAY, 7 – SUNDAY)														
<b>E. TREATMENT</b>														
DATE TAKEN							TIME TAKEN				TEMPERATURE			
Y	Y	/	M	M	/	D	D	H	H	:	M	M		
Y	Y	/	M	M	/	D	D	H	H	:	M	M		
Y	Y	/	M	M	/	D	D	H	H	:	M	M		
Y	Y	/	M	M	/	D	D	H	H	:	M	M		
Y	Y	/	M	M	/	D	D	H	H	:	M	M		
<b>F. WORKING AREA</b>														
WET KATA READING														
WET BULB READING														
DRY BULB READING														
AVERAGE WET BULB READING														
AVERAGE DRY BULB READING														
AIR QUANTITY														
AIR VELOCITY														
AVERAGE QUANTITY														
AVERAGE VELOCITY														
MEANS OF VENTILATION														

Minerals and Energy for Development and Prosperity

DEPARTMENT: MINERALS AND ENERGY

This form must be completed for reportable accidents in terms of regulation 23.2(3)

**REPORT ON DATE RESUMED WORK**

Name of Mine:

Codes to be used on this Form are specified in the Code Book

DME 202  
(SAMRASS 9)

DME Mine Code:

This form is to be completed monthly and forwarded to the regional office of the Inspectorate in respect of all injured persons who returned to work during that month.



**AIRBORNE POLLUTANTS — GASES AND VAPOURS PERSONAL EXPOSURE REPORT FORM 21.9(2)(b)**

110 terms of regulation 92 (7))

## General:

HEG Category Classification Band		Gases and Vapours
A	Quarterly reports ending March, June, Sept. and December	
B	Annual reports ending December	
3. The monitoring frequency and number of samples to be used are specified in the SAMOHP		
4. Complete one form for each homogeneous exposure group		
5. Attach Operation Details — Report Form 21.9(2)(f) at the end of each reporting cycle		
6. The results of samples taken from randomly selected occupations within a HEG must be assigned to the where occupations within a HEG were not sampled the HEG mean pollutant concentration must be the all or		

2. The monitoring frequency and number of samples to be used are specified in the SAMOHP
  3. Complete one form for each homogeneous exposure group
  4. Codes to be used in this form are specified in the SAMOHP
  5. Attach Operation Details — Report Form 21-9(2)f at the end of each reporting cycle
  6. The results of samples taken from randomly selected employees within a HEG must be assigned to that specific occupation code, where occupations within a HEG were not sampled the HEG mean pollutant concentration must be allocated to those occupations

**Note:** Mean Pollutant Concentration needs to be calculated at 95% Confidence Interval (see explanation in SAMOHP Code Book)

HEAT STRESS EXPOSURE REPORT 21 9(2)(c)

[Report Form 21.9(2)(c) added by GN R954 of 2 July 2002 and substituted by GN R1226 of 15 December 2005.]  
[In terms of regulation 9(2)(f)]

**General:**

1. Risk assessment will determine the warmest quarter, statutory reports to be submitted to DME within 60 days of the compilation of the identified quarter.

2. Complete one form for each homogeneous exposure group

3. Codes to be used in this form are specified in the SAVOHP

4. Attach Operation Details — Report Form 21-9(2)(f) at the end of each reporting cycle

5. The results of samples taken from randomly selected operations within a HEG must be assigned to that specific occupation code



## Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

**DEPARTMENT: MINERALS AND ENERGY**  
**PERSONAL NOISE EXPOSURE — REPORT FORM 21.9(2)(e)**

#### **General:**

- General:**  
1. Reporting Period as per table below:

HEG Category Classification Band	Noise
A	Annual reports ending December
B	
C	Two-yearly reports ending December

Information in shaded area not to be included in statutory report submitted to DME; see examples in SAMOHP Code Book

2. Complete one form for each homogeneous exposure group.
  3. Codes to be used in this form are specified in the SAMOHP.
  4. Attach Operation Details — Report Form 21.9(2)(f) at the end of each reporting cycle.
  5. The results of samples taken from randomly selected occupations within a HEG must be assigned to that specific occupation code.

Main Commodity Code:		DME Mine Code:	
Sample Area:		Sub Mine Code:	
Activity Area Code:		Reporting Period:	
HEG Classification Band:		Start	End
<b>HEG</b>			
Occupations Codes in Noise HEG	Number of Persons per Occupation	* Logarithmic Average Sound Pressure Level $(L_{A_8h, 8dB})$ per Occupation	
1000 lines for entries			
<b>TOTAL</b>			

\* Note: Logarithmic Average Sound Pressure Level ( $L_{A_{avg}, dB}$ ) must be calculated as per formula on Pg 74 Para 3.6.2.2 of the Guideline for the Compilation of a Mandatory Code of Practice for an Occupational Health Programme for Noise: Ref. No. DME 16/3/24—A3.

[Report Form 21.9(2)(e) added by GN R1226 of 2005.]  
(In terms of regulation 9.2.(7))

Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

OPERATIONS DETAILS — REPORT FORM 21.9(2)(f)																
[Report Form 21.9(2)(f) added by GN R1226 of 15 December 2005.]																
Report on exposure levels	Airborne Pollutants	<input type="checkbox"/>	Pages/Report	For sampling period.....												
	Thermal Stress	<input type="checkbox"/>														
	Noise	<input type="checkbox"/>														
(Tick appropriate box)																
DME Mine Code:	<input type="text"/>			DME Sub Mine Code: <input type="text"/>												
Mine:	<input type="text"/>															
Address:	<input type="text"/>				Control Group: <input type="text"/>											
	<input type="text"/>				<input type="text"/>											
Area Code:	<input type="text"/>				Commodities: <input type="text"/>											
Manager:	<input type="text"/>				Production Process: <input type="text"/>											
Telephone:	<input type="text"/>				<input type="text"/>											
Telefax:	<input type="text"/>				E-Mail: <input type="text"/>											
<b>Section 12.1</b>																
Name	Engaged Occupational Hygienist	Part time	Full time	MEC Certificate No. or Intermediate Certificate and SAICM Registration No. <input type="text"/>												
Code																
Telephone:	<input type="text"/>	<input type="text"/>			Cell Phone: <input type="text"/>											
Code																
Telefax:	<input type="text"/>	<input type="text"/>			E-Mail: <input type="text"/>											
Directorate: <input type="text"/>																
<b>Summary</b>																
Airborne Particulates		No. of persons per category		Gases & Vapours		No. of persons per category		Noise		No. of persons per category		Thermal Stress		No. of persons per category		
Substance	Code	A	B	C	Substance	Code	A	B		A	B	C	A	B	C	D
														Heat Stress		
																Cold Stress
Labour	Mine	Contractors		Total Labour												
..... Engaged Occupational Hygienist Date Manager Date																





## Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

**DRIVE SYSTEM:**

Drive motor: (kW) Volts (AC/DC) (r.p.m.)  
 Estimated maximum absorbed power: (kW)  
 Drive sheave mean diameter: metres  
 Gear reducer type and ratio (if used):  
 Type of governor:

### **BRAKES:**

#### Description of service brake system:

#### Description of back-up brake system:

#### HATCHWAY:

Drawing number:  
Air - upcast or downcast:  
Velocity:  
Wet or dry:  
If wet, is water acidic, neutral or alkaline?

#### COUNTERWEIGHT

Counterweight mass	(kg/MPa)
Diameter/specification of counter weight rope	
Estimated breaking strength of counterweight rope	(Newtons)
Counterweight movement allowed	(metres)

## HEAD ROPES

Number of ropes:  
Diameter/specification:  
Finish  
Maximum calculated dynamic rope tension (Newtons)  
Calculated minimum dynamic rope safety factor

#### TATI ROPES/CHATNS

**TAIL ROPE CHAINS**  
Number of ropes/chains  
Breaking force  
Estimated breaking strength

**OTHER DETAIL**

(Attach certified copies of OEM's lift calculations, specifications and general arrangement drawing of the lift installation.)  
Name of Inspection Authority that conducts the Commissioning Inspection:

I certify that the particulars and specifications given herein are correct.

Signature of employer .....

**Form DMR 299  
Chairlifts**

[Form DMR 299 added by GN R893 of 25 August 2017.]



The Chairlift Particulars

In terms of regulation 8.12.2 Chapter 8 of the Mine Health and Safety Act, (Act 29 of 1996)

O E M:  
Ref No:

The Principal Inspector of Mines

Region:  
Date:

Please be advised that we wish to inform you of particulars of a chairlift as set out below:

Name of mine:

Address of mine:

The chairlift will be:

- (a) installed;
  - (b) modified; or
  - (c) recommissioned.
- (specify (a), (b) or (c))

Nature of loads to be transported:

Location of chairlift (including shaft and levels):

**EXCAVATION:**

Drawing number:

Air - upcast or downcast:

Velocity:

Indicate 'Wet or Dry':

If wet, is water acid, neutral or alkaline?

**ILLUMINATION:**

Are the stations and the traveling ways adequately illuminated?

**COMMUNICATIONS ARRANGEMENTS:**

Type:

**DESCRIPTION OF CHAIRLIFT INSTALLATION**

Does the chairlift design comply in all respects with SANS 273:2006 Edition 1 - 'Standard for the design, construction, maintenance and safe operation of chairlifts in mines'?

If not, describe variances

Chairlift type: (fixed grip, detachable grip, other)

Centre to centre length: (metres)

Vertical lift: (metres)

Maximum angle to horizontal: (degrees)

Number of intermediate stations:

Chairlift capacity: (persons per hour)

Rope speed: (metres per second)  
Minimum time interval between carriers: (seconds)  
Minimum equidistant carrier spacing: (metres)  
Carrier design – personnel:  
Carrier design – specified: (loads)  
Drive system:  
Drive motor: (kW) Volts (AC/DC): (r p m)  
Estimated maximum absorbed power: (kW)  
Drive sheave mean diameter: (metres)  
Gear reducer type and ratio:

**LIFT TYPE:**

(Electric, Hydraulic, Goods Only, other)

**BRAKES:**

Service brake system (description of):

Back-up brake system (description of):

**ROPE TENSIONING SYSTEM:**

Return sheave mean diameter: (metres)  
Method of applying tension:  
Counterweight mass of hydraulic pressure: (kg/MPa)  
Initial tension applied to the rope or sheave axle: (Newtons)  
Diameter/specification of tension rope:  
Estimated breaking strength of tension rope: (Newtons)  
Counterweight/hydraulic cylinder movement allowed: (metres)  
Tension carriage movement allowed: (metres)

**HAULING ROPE**

Diameter/specification:  
Finish:  
Manufacturer's lubrication:  
Estimated breaking strength:  
Ratio of minimum sheave diameter (drive, return or idler), to rope diameter  
Ratio of minimum sheave diameter (drive, return or idler), to rope outer wire diameter  
Maximum calculated dynamic rope tension: (Newtons)  
Calculated minimum dynamic rope safety factor:

(Attach certified copies of OEM's chairlift calculations, specifications and general arrangement drawing of the chairlift installation.)

I certify that the particulars and specifications given herein are correct.

Signature of employer .....



Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

**D. DETAILS OF SUBMISSION FOR COMPENSATION (Mark with "X" whether applicable)**

Is the disease compensable?

Yes

No

Date submitted:

Was death caused by the reported disease/s?

Yes

No

Employment status changed:  Yes  No If yes,  
state date:

Is the disease reportable  
to:

DoL Compensation  
Commissioner

MBOD

RMA

Compensation/claim number (If applicable):

**E. EMPLOYMENT HISTORY RECORD (start with recent employment history)**

## **F. GENERAL DETAILS**

**Person submitting the form:**

Surname: \_\_\_\_\_ Full Name(s): \_\_\_\_\_

Contact No. \_\_\_\_\_

Date: \_\_\_\_\_

Signature (person submitting)

**Occupational Medical Practitioner:**

Surname: \_\_\_\_\_ Full Name(s): \_\_\_\_\_

HPCSA No:

Contact No. \_\_\_\_\_

Date: D D M M Y Y Y Y

## Annexure A

### INTRODUCTION

The Health Incident Report (HIR) has been developed from recommendations of GEN 501 to generate centralised database to record the occurrence of occupational diseases in the South African mining industry, together with the morbidity and mortality of such diseases.

The database is used by the Mine Health and Safety Inspectorate for research purposes. This research helps to identify and classify problem areas in occupational disease management, so that appropriate preventative measures can be implemented. The occupational diseases database has been designed with an attached user guideline/procedure and the data-input form for completion by Occupational Medical Practitioners (OMPs) in the mining industry in submitting details of disease occurrences.

The Health Incident Report occupational diseases system uses the same list of mines as SAMRASS, the intention being to standardise data on disease incidents for administrative simplicity, as well as for statistical purposes.

Normal medical ethics must apply to confidentiality of personal and medical data. An *employee* consent form is attached as an annexure (Annexure B). There is a legal obligation to notify certain diseases, such as tuberculosis, to the authorities for protection of the community. In such a case, the common good has to override personal interests. But, as mentioned, access to the detailed data must be restricted in order to prevent violation of personal privacy rights.

The system is not designed to record clinical details of a disease occurrence; the main purpose of the data is to address the lack of information on the prevalence of occupational diseases in the mining industry. The nature of the data is designed to facilitate subsequent statistical analysis of masses of cases, rather than an in-depth clinical analysis of any specific case. This is to enable corrective measures to be prioritised and monitored. The document was developed in consultation with representatives from State, Labour and *Employer*.

The following aspects were taken into account:

- **Simplification**

An important consideration in the revision process was to design the reporting system without adding to the workload for the mines. With this in mind, codes which are consistent with industry reporting to Rand Mutual Assurance have been incorporated with SAMRASS reporting.

- **Content**

The choice and definition of variables to be reported, statistical measures and categories and groups for which statistics are reported, were revisited.

The new system has also been designed to conform to international standards and to facilitate comparison with other statistics.

- **Accuracy and Consistency**

Coding structures should be consistent with previous code sets so that history is not lost and should be readily understood by persons completing the prescribed forms.

• **Accessibility**

Statistics will be published in the Mine Health and Safety Inspectorate (MHSI) Annual Report and disseminated. Graphs, diagrams and explanatory notes will be used.

• **Uses**

Statistics will be presented, illustrating the situation and trends within the different mining sectors.

• **Common Vocabulary**

The intention of this document is to ensure that all mines make use of the same terminology regarding disease reporting.

[Annexure A of form DMR 231 inserted by GNR.702 of 2014]

**Annexure B**

**Employee Consent Form**

I \_\_\_\_\_ (full names and surname) understand that my personal information regarding disease and employment will be sent as regulated to the Health Incident report database and may be used for purposes of reporting of occupational disease in mines and research.

I have been informed that confidentiality will be maintained in terms of section 15 of the Mine Health and Safety Act, 1996, as amended.

---

Employee  
(Signature)

Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

---

Witness 1  
(Signature)

Witness 2  
(Signature)

Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_      Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

[Annexure B of form DMR 231 inserted by GNR 702 of 2014.]

**Annexure C**

**USER GUIDELINE ON HEALTH INCIDENT REPORT (HIR)**

**A. DETAILS OF EMPLOYER**

- Name of mine: The name of the mine must be filled in
- SAMRASS Mine Code: The Mine's SAMRASS code must be filled in
- Mine Address: The mine's postal address must be filled in

**B. PERSONAL DETAILS OF THE AFFECTED EMPLOYEE**

Supply **ALL** available information on personal details

- U/G and surface: Indicate the employee's designated working area

**C. DETAILS OF DIAGNOSED DISEASE**

Indicate with an 'X' on the disease (s)/illness diagnosed

- Date diagnosed Complete the date when the disease/illness was diagnosed, e.g. DD/MM/YYYY
- Date of death (if applicable): Indicate date if the diagnosed disease(s)/illness caused death

**D. DETAILS OF SUBMISSION FOR COMPENSATION**

- Submitted for compensation: Mark with 'X' if a compensation claim has been submitted
- Date submitted: Date on which the compensation claim was submitted
- Disease caused Death: State whether the employee died as a result of the disease
- Employment status changed: State if the employee's occupation has changed as a result of the disease
- Date: Indicate the date from which the employee's employment status has changed
- Compensation Houses/Bodies Indicate which institution handled the compensation claim e.g. Rand Mutual Assurance, Compensation Commissioner or Medical Bureau for Occupational Diseases
- Compensation/claim number Indicate the compensation/claim number

**E. WORK AND/OR EXPOSURES THAT LED TO THE DISEASE**

Supply **ALL** available information on the affected employee's work and work exposures

**F. EMPLOYMENT HISTORY RECORD:**

Supply **ALL** information

**G. GENERAL DETAILS:**

Supply **ALL** information and sign the form where indicated

[Annexure C of form DMR 231 inserted by GNR.702 of 2014]

**Annexure D**

**USER GUIDELINE ON HEALTH INCIDENT REPORT (HIR)**

**LIST OF ACRONYMS**

PTB	Pulmonary tuberculosis
SIL+TB	Silico-tuberculosis
MDR-TB	Multidrug-resistant tuberculosis
XDR-TB	Extensively drug-resistant tuberculosis
SIL	Silicosis
ASB	Asbestosis
CWP	Coal Workers' pneumoconiosis
COAD	Chronic obstructive airway disease
NIHL	Noise-induced hearing loss
OTHER	Specify

[Annexure D of form DMR 231 inserted by GNR.702 of 2014]

**Annexure E**

MHSI Regional Offices - Contact List

Region	Telephone No.	Physical Address	Postal Address
Eastern Cape	041 396 3940	C/o Mount Road & Diaz, Mount Croix, PORT ELIZABETH	Private Bag X6076 PORT ELIZABETH 6000
Free State	057 391 1371/3	The Strip, 314 State Way & Bok Streets WELKOM 9459	Private Bag X33 WELKOM 9460
Gauteng	011 358 9700	Mineralia Building, 1st and 2nd Floor, c/o De Korte & De beer Streets BRAAMFONTEIN Johannesburg	Private Bag X5 BRAAMFONTEIN 2017
KwaZulu-Natal	031 335 9626	Durban Bay House 333 Anton Lembede Street (former Smith Street) DURBAN 4001	Private Bag X54307 DURBAN 3000
Limpopo	015 287 4705	101 Dorp Street POLOKWANE 0699	Private Bag X9467 POLOKWANE 0700
Mpumalanga	013 653 0500	Receiver of Revenue Building, C/o Paul Kruger & Botha Street EMALAHLENI 1035	Private Bag X7279 WITBANK 1035
Northern Cape	053 807 1735	65 Phakamile Mabija Street Perm Building KIMBERLEY 8300	Private Bag X6093 KIMBERLEY 8300
North West-Klerksdorp	018 487 9867	Vaal University of Technology Building, C/o Voortrekker & Margaret Prinsloo Streets KLERKSDORP 2570	Private Bag A1 KLERKSDORP 2570
North West-Rustenburg	014 594 9240	254 C/o Beyers Naude & Unie Streets RUSTENBURG	PO BOX 150 TLHABANE 0390
Western Cape	012 427 1004	Atterbury House, 9th Floor C/o Lower Burg & Riebeeck Streets CAPE TOWN 8012	Private Bag X9 ROGGE BAY 8012

[Annexure E of form DMR 231 inserted by GNR.702 of 2014]

## CHAPTER 22

### SCHEDULES

#### 22.4 Explosives

- (1) For purposes of regulation 4.4(1) '**competent person**' means a person who is a holder of the following certificates recognised by the **Department** for this purpose, valid for the class of **mine** to which the **mine** belongs:
  - (a) Blasting certificate issued by the **Department** until 30 June 2009; or
  - (b) Rock breaker or equivalent certificate issued by the Mining Qualifications Authority from 01 July 2009 to 31 May 2017; or
  - (c) Blasting certificate issued by the **Department** with effect from 01 June 2017.

[Chapter 22.4.1 has been replaced by GNR.953 of 2018.]

- (2) For purposes of regulation 4.4(3) '**competent person**' means a person who:
  - (a) has been assessed and found competent against a skills programme issued by the Mining Qualifications Authority for this purpose; or
  - (b) is qualified by:
    - (i). virtue of his/her knowledge, training, skills and experience to perform the activities contemplated in regulation 4.4(3);
    - (ii). being familiar with the provisions of regulation 4 which apply to the work to be performed by such person; and
    - (iii). being trained to recognise any potential or actual danger to *health* or safety that may arise from the work to be performed by such person.

[Chapter 22.4.2 has been replaced by GNR.953 of 2018.]

- (1) Underground coal mines—
  - (a) Primary blasting  
A person in possession of a blasting certificate for fiery mines issued by the Department, or  
A person assessed and found competent against a qualification for the type of mining to be undertaken recognised by the MQA for this purpose.
  - (b) Secondary blasting  
A person in possession of a blasting certificate for fiery mines issued by the Department, or  
A person assessed and found competent against a qualification recognised by the MQA for this purpose.
  - (c) Blasting assistant  
A person assessed and found competent against a skills programme recognised by the MQA for this purpose.

- (2) Underground hard rock massive mine-
- (a) Primary blasting
    - A person in possession of a blasting certificate for scheduled mines issued by the Department, or
    - A person assessed and found competent against a qualification recognised by the MQA for this purpose.
  - (b) Secondary blasting
    - A person in possession of a blasting certificate for scheduled mines issued by the Department, or.
    - A person assessed and found competent against a skills programme recognised by the MQA for this purpose.
  - (c) Blasting assistant
    - A person assessed and found competent against a skills programme recognised by the MQA for this purpose.
- (3) Quarries other than dimension stone quarries
- (a) Primary blasting
    - A person in possession of a blasting certificate for opencast mines issued by the Department, or
    - A person assessed and found competent against a qualification recognised by the MQA for this purpose.
  - (b) Secondary blasting
    - A person in possession of a blasting certificate for opencast mines issued by the Department, or
    - A person assessed and found competent against a qualification recognised by the MQA for this purpose.
  - (c) Blasting assistant
    - A person assessed and found competent against a skills programme recognised by the MQA for this purpose.
- (4) Open-pit/strip mine
- (a) Primary blasting
    - A person in possession of a blasting certificate for opencast mines issued by the Department.
    - A person assessed and found competent against a qualification recognised by the MQA for this purpose.
  - (b) Secondary blasting
    - A person in possession of a blasting certificate for opencast mines issued by the Department, or
    - A person assessed and found competent against a qualification recognised by the MQA for this purpose.

(c) Blasting assistant

A person assessed and found competent against a skills programme recognised by the MSA for this purpose.

(5) Dimension stone quarries

(a) Primary blasting

A person in possession of a blasting certificate for opencast mines issued by the Department, or

A person assessed and found competent against a qualification recognised by the MSA for this purpose.

(b) Secondary blasting

A person in possession of a blasting certificate for opencast mines issued by the Department, or

A person assessed and found competent against a qualification recognised by the MSA for this purpose.

(c) Blasting assistant

A person assessed and found competent against a skills programme recognised by the MSA for this purpose.

[Reg. 22.4 inserted by GNR.1279 of 2006]

## **22.8 Machinery and Equipment**

**22.8.6(4)** For purposes of regulation 8.6(4) the competent person means a person who is a certificated electrical or mechanical engineer or has an appropriate qualification registered on the National Qualifications Framework and recognised by the Mining Qualifications Authority for this purpose.

[Regulation 22.8.6(4) inserted by GN.911 of 2006]

**22.8.7(2)** The competent person referred to in regulation 8.7(2) means a person who-

- (i). is a certificated electrical or mechanical engineer or has an appropriate qualification registered on the National Qualifications Framework and which is recognised by the MSA for this purpose;
- (ii). is familiar with the type of refrigeration and air conditioning plants used at the mine in so far it concerns aspects of safety, construction, erection, operation, inspection and testing of such plants; and
- (iii). is familiar with any relevant national or international Standards, Codes of Practice and specifications related to the type of refrigeration and air conditioning plants used at the mine.

[Regulation 22.8.7(2) inserted by GN.911 of 2006]

### **22.8.10 Hazardous location**

**22.8.10.1** The competent person referred to in regulation 8.10.1 [sic] means a person who-

- (i). is the holder of a Certificate of Competency for mechanical or electrical engineering issued by the Chief Inspector of Mines and has knowledge and experience in the design, construction and maintenance of equipment in the Hazardous Location and is conversant with the relevant SANS Standards; or
- (ii). has been assessed competent against a qualification recognised by the MQA [for] this purpose.

**22.8.10.2** The competent person referred to in regulation 8.10.2(f) [sic] means a person who-

- (i).
  - (a) is in possession of an Electrician Trade certificate issued by the Department of Labour under the Manpower Training Act or who has been assessed competent against a skills programme or qualification recognised for this purpose by the Mining Qualifications Authority;
  - (b) has the experience in the design, construction, installation, operation and maintenance of the type of electrical apparatus used in a hazardous location on which he is required to work at the mine; and
  - (c) is conversant with the relevant SANS Standards referred to in the regulations; or
- (ii). has been assessed competent against a qualification recognised by the MQA [for] this purpose.

**22.8.10.3** The competent person referred to in regulation 8.10.2(n) [sic] means a person who-

- (i).
  - (a) is in possession of Diesel Mechanic Trade certificate issued by the Department of Labour under the Manpower Training Act or who has been assessed competent against a skills programme or qualification recognised for this purpose by the Mining Qualification Authority;
  - (b) has the experience in the design, construction, installation, operation and maintenance of type of diesel equipment on which he is required to work at a mine; and
  - (c) is conversant with the relevant SANS standards referred to in the regulations; or
- (ii). been assessed competent against a qualification recognised by the MQA [for] this purpose.

[Reg. 22.8.10 inserted by GNR.1068 of 19 November 2010.]

### **22.8.13 Vessels under pressure**

The competent person<sup>1</sup> referred to in regulation 8.13(9), 8.13(11), 8.13(17) [sic] means a person-

- 1.1** who is the holder of a Certificate of Competency for Mechanical or Electrical Engineers (Mines and Works) issued by the Department; or
- 1.2** who has been assessed competent against a qualification, skills programme or unit standards recognised by the Mining Qualification Authority for this purpose; or
- 1.3** who is the holder of a valid certificate of registration: 'Competent Person Pressure Vessels' issued by the South African Qualification and Certification Committee for competent persons (pressure vessels and boilers).

[Reg. 22.8.13 inserted by GNR.1068 of 2010]

## **22.9**

### **(2) Occupational Hygiene**

- (a) Occupational Exposure Limits for Airborne Pollutants  
In this Schedule the following terms/abbreviations have the meanings as set out below.

#### **Terms**

**'Asbestos'** means any of the following minerals: Crocidolite, Amosite, Chrysotile, Fibrous actinolite, Fibrous anthophyllite, Fibrous tremolite, and any mixture containing any of these minerals.

**'Occupational exposure limit'** (OEL) means the time weighted average concentration for a 8 hour work day and a 40 hour work week to which nearly all workers may be repeatedly exposed without adverse *health* effects.

**'Occupational exposure limit - Ceiling limit'** (OEL - C) means an instantaneous value which must never be exceeded during any part of the working exposure.

**'Occupational exposure limit - Short term exposure limit' (OEL-STEL)**

means a 15 minute TWA exposure which should not be exceeded at any time during a workday even if the 8-hour TWA is within the OEL-TWA. Exposures above the OEL-TWA up to the STEL should not be longer than 15 minutes and should not occur more than four times per day. There should be at least 60 minutes between successive exposures in this range. An averaging period other than 15 minutes may be recommended when this is warranted by observed biological effects.

For those substances for which no OEL-STEL has been specified, excluding airborne particulates, a figure of three times the occupational exposure limit is to be used when controlling short-term excursions in exposure.

**'Respirable particulates'** means the respirable fraction of airborne particulates.

**'Inhalable particulates'** means airborne particulates as collected by a personal gravimetric sampler without particle size selection.

## ABBREVIATIONS

<b>CAS</b>	=	Chemical Abstracts Service is an organisation under the American Chemical Society. CAS Numbers are used to identify specific chemicals or mixtures.
<b>Ppm</b>	=	parts per million
<b>mg/m<sup>3</sup></b>	=	milligrams per cubic metre
<b>Sk</b>	=	Skin absorption
<b>Sen</b>	=	Capable of causing respiratory sensitisation
<b>f/ml</b>	=	fibres per millilitre

**2006 OCCUPATIONAL EXPOSURE LIMITS FOR AIRBORNE POLLUTANTS**

Tabulation shows inhalable particulates unless indicated to be respirable

[Table substituted by GNR.989 of 5 October 2006.]

Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/ OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Acetaldehyde	1	CH <sub>3</sub> CHO	75-07-0	25	45	50	90	[06]
Acetic acid	2	CH <sub>3</sub> COOH	64-19-7	10	25	15	37	
Acetic anhydride	3	(CH <sub>3</sub> CO) <sub>2</sub> O	108-24-7	—	—	5	20	
Acetone	4	(CH <sub>3</sub> ) <sub>2</sub> CO	67-64-1	500	1185	1000	2375	[06]
Acetonitrile	5	CH <sub>3</sub> CN	75-05-8	40	70	60	105	
Acetyl salicylic acid [Aspirin]	6	CH <sub>3</sub> COOC <sub>6</sub> H <sub>5</sub> COOH	50-78-2	—	5	—	—	
Acrolein	7	CH <sub>2</sub> =CHCHO	107-02-8	0,1	0,25	0,3	0,8	
Acrylaldehyde	7	CH <sub>2</sub> =CHCHO	107-02-8			see Acrolein		
*Acrylamide	8	CH <sub>2</sub> =CHCONH <sub>2</sub>	79-06-1	—	0,3	—	—	Sk
*Acrylic acid	9	CH <sub>2</sub> =CHCOOH	79-10-7	2	6	15	45	[06]
*Acrylonitrile	10	CH <sub>2</sub> =CHCN	107-13-1	2	4	—	—	Sk
Aldrin	11	C <sub>12</sub> H <sub>8</sub> Cl <sub>8</sub>	309-00-2	—	0,25	—	0,75	Sk
Allyl alcohol	12	CH <sub>2</sub> =CHCH <sub>2</sub> OH	107-18-6	2	5	4	10	Sk
Allyl chloride	13	CH <sub>2</sub> =CHCH <sub>2</sub> Cl	107-05-1	1	3	2	6	
Allyl-2,3- epoxypropyl ether	14	C <sub>6</sub> H <sub>10</sub> O <sub>2</sub>	106-92-3			see Allyl glycidyl ether		
Allyl glycidyl ether (AGE)	14	C <sub>6</sub> H <sub>10</sub> O <sub>2</sub>	106-92-3	5	22	10	44	
Aluminium alkyl compounds	15	—	—	—	—	2	—	
Aluminum metal								
inhalable particulate	16	Al	7429-90	—	10	—	—	
respirable particulate	17			—	5	—	—	
Aluminum oxides								
inhalable particulate	18	Al <sub>2</sub> O <sub>3</sub> , Al(OH) <sub>n</sub> and AlOCH	1344-28-1	—	10	—	—	[c]
respirable particulate	19			—	5	—	—	
Aluminum pyro powders	19A	—	7429-90-5	—	5	—	—	[06*]
Aluminum salts, soluble	20	—	—	—	2	—	—	
Aluminum welding fumes	20A	—	7429-90-5	—	5-	—	—	[06*]
Aminodimethylbenzene	21	(CH <sub>3</sub> ) <sub>2</sub> C <sub>6</sub> H <sub>3</sub> NH <sub>2</sub>	1300-73-8			see Xylyidine		
2-Aminoethanol	22	NH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OH	141-43-5			See Ethanolamine		
2-Aminopyridine	23	NH <sub>2</sub> C <sub>5</sub> H <sub>4</sub> N	504-29-0	0,5	2	2	8	
Ammonia	24	NH <sub>3</sub>	7664-41-7	25	17	35	24	
Ammonium chloride, fume	25	NH <sub>4</sub> Cl	12125-02-9	—	10	—	20	
Ammonium sulphamate	26	NH <sub>4</sub> SO <sub>3</sub> NH <sub>4</sub>	7773-06-0	—	10	—	20	
<i>n</i> -Amyl acetate	27	CH <sub>3</sub> COO(CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub>	628-63-7	100	530	150	800	
sec-Amyl acetate	28	CH <sub>3</sub> COOCH(CH <sub>3</sub> )C <sub>3</sub> H <sub>7</sub>	626-38-0	125	666	—	—	[06*]
Aniline	29	NH <sub>2</sub> C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub>	62-53-3	2	10	5	20	Sk
Anisidines, <i>o</i> - and <i>p</i> -isomers	30	NH <sub>2</sub> C <sub>6</sub> H <sub>4</sub> OCH <sub>3</sub>	90-04-0 104-94-9	0,1	0,5	—	—	Sk
Antimony & compounds [as Sb] except antimony trisulphide and antimony trioxide	31	Sb	7440-36-0	—	0,5	—	—	
*Arsenic & compounds, except arsine [as As]	32	As	7440-38-2	—	0,01	—	—	[06]
Arsine	33	AsH <sub>3</sub>	7784-42-1	0,05	0,2	—	—	
*Asbestos, all forms	34	—	1332-21-4	—	0,2/ml	—	—	[06]
Asphalt, petroleum fumes	35	—	8052-42-4	—	5	—	10	
Atrazine	36	C <sub>8</sub> H <sub>14</sub> CIN <sub>5</sub>	1912-24-9	—	5	—	—	[06]
Azinphos-methyl	37	C <sub>10</sub> H <sub>12</sub> O <sub>3</sub> PS <sub>2</sub> N <sub>3</sub>	86-50-0	—	0,2	—	0,6	Sk
Aziridine	38	CH <sub>2</sub> NHCH <sub>2</sub>	151-56-4			see Ethyleneimine		

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
gamma-BHC	39	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	58-89-9	—	—	see Lindane	—	
Barium compounds, soluble [as Ba]	40	—	7440-39-3	—	0,5	—	—	
Barium sulphate, respirable particulate	41	BaSO <sub>4</sub>	7727-43-7	—	2	—	—	
Benomyl	42	C <sub>11</sub> H <sub>18</sub> N <sub>4</sub> O <sub>3</sub>	17804-35-2	—	10	—	15	
*Benzene	43	C <sub>6</sub> H <sub>6</sub>	71-43-2	1	3	—	—	[06]
Benzenthiol	44	C <sub>6</sub> H <sub>6</sub> SH	108-98-5	0,5	2	—	—	
Benzene-1,2,4,- tricarboxylic acid 1,2 anhydride	45	C <sub>8</sub> H <sub>4</sub> O <sub>5</sub>	552-30-7	—	—	see Trimellitic anhydride	—	
p-Benzoquinone	46	C <sub>6</sub> H <sub>4</sub> O <sub>2</sub>	106-51-4	—	—	see Quinone	—	
Benzoyl peroxide	47	(C <sub>6</sub> H <sub>5</sub> CO) <sub>2</sub> O	94-36-0	—	5	—	—	
Benzyl butyl phthalate	40	C <sub>11</sub> H <sub>20</sub> O <sub>4</sub>	85-66-7	—	—	See Butyl benzyl phthalate	—	
Benzyl chloride	49	C <sub>6</sub> H <sub>5</sub> CH <sub>2</sub> Cl	100-44-7	1	5	—	—	
*Beryllium and beryllium compounds [as Be]	50	Be	7440-41-7 (metal)	—	0,002	—	—	
Biphenyl	51	(C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub>	92-52-4	0,2	1,5	0,6	4	
*Bis(chloromethyl) ether [BCME]	52	ClCH <sub>2</sub> OCH <sub>2</sub> Cl	542-88-1	0,001	0,005	—	—	
Bis(2,3-epoxypropyl) ether	53	(OCH <sub>2</sub> CHCH <sub>2</sub> ) <sub>2</sub> O	2238-07-5	—	—	see Diglycidyl ether	—	
Bis(2-ethylhexyl) phthalate	54	C <sub>20</sub> H <sub>38</sub> O(COOC <sub>2</sub> H <sub>5</sub> ) <sub>2</sub>	117-81-7	—	—	see Di-(2-ethylhexyl) phthalate	—	
2,2-Bis(p-Methoxyphenyl)-1,1,1-trichloroethane (DMDT)	55	(C <sub>6</sub> H <sub>5</sub> OCH <sub>3</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	72-43-5	—	—	see Methoxychlor	—	
Bismuth telluride [as Bi <sub>2</sub> Te <sub>3</sub> ]	—	—	—	—	—	—	—	
Undoped	56	Bi <sub>2</sub> Te <sub>3</sub>	1304-82-1	—	10	—	20	
Selenium-doped	57	—	—	—	5	—	10	
Borates, — tetra, sodium salts								
Anhydrous	58	Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	1330-43-4	—	1	—	—	
Decahydrate	59	Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> ·10H <sub>2</sub> O	1303-96-4	—	5	—	—	
Pentahydrate	60	Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> ·5H <sub>2</sub> O	12179-04-3	—	1	—	—	
Boran-2-one	61	C <sub>10</sub> H <sub>16</sub> O	76-22-2	—	—	see Camphor, synthetic	—	
Boron oxide	62	B <sub>2</sub> O <sub>3</sub>	1303-86-2	—	10	—	20	
Boron tribromide	63	BBF <sub>3</sub>	10294-33-4	—	—	C1	C10	[06]
Boron trifluoride	64	BF <sub>3</sub>	7637-07-2	—	—	C1	C3	[06]
Bromacil	65	C <sub>8</sub> H <sub>13</sub> BrN <sub>2</sub> O <sub>2</sub>	314-40-9	1	10	2	20	
Bromine	66	Br <sub>2</sub>	7726-95-6	0,1	0,7	0,3	2	
Bromine pentafluoride	67	BrF <sub>5</sub>	7789-30-2	0,1	0,7	0,3	2	
Bromo-chloromethane	68	CH <sub>3</sub> BrCl	74-97-5	—	—	see Chlorobromomethane	—	
Bromoethane	69	CH <sub>3</sub> CH <sub>2</sub> Br	74-96-4	—	—	see Ethyl bromide	—	
Bromoethylene	70	CH <sub>2</sub> =CHBr	593-60-2	—	—	see Vinyl bromide	—	
Bromoform	71	CHBr <sub>3</sub>	75-25-2	0,5	5	—	—	Sk
Bromomethane	72	CH <sub>3</sub> Br	74-83-9	—	—	see Methyl bromide	—	
Bromotrifluoromethane	73	CF <sub>3</sub> Br	75-63-8	—	—	see Trifluorodromethane	—	
*Buta-1,3- diene	74	CH <sub>2</sub> =CHCH=CH <sub>2</sub>	106-99-0	2	4	—	—	[06]
n-Butane	75	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	106-97-8	600	1430	750	1780	
Butan-1-ol	76	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OH	71-36-3	—	—	see n-Butyl alcohol	—	
Butan-2-ol	77	CH <sub>3</sub> CH(OH)CH <sub>2</sub> CH <sub>3</sub>	78-92-2	—	—	see sec-Butyl alcohol	—	
Butan-2-one	78	CH <sub>3</sub> COCH <sub>2</sub> CH <sub>3</sub>	78-93-3	—	—	see Methyl ethyl ketone	—	
trans-But-2- enal	79	CH <sub>3</sub> CH=CHCHO	4170-30-3	—	—	see Crotonaldehyde	—	
*2- Butoxyethanol [EGBE]	80	C <sub>4</sub> H <sub>9</sub> OCH <sub>2</sub> CH <sub>2</sub> OH	111-76-2	25	120	—	—	Sk
n-Butyl acetate	81	CH <sub>3</sub> COO(CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub>	123-85-4	150	710	200	950	
sec-Butyl acetate	82	CH <sub>3</sub> COOCH(CH <sub>3</sub> )CH <sub>2</sub> CH <sub>3</sub>	105-46-4	200	950	250	1190	

Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/ OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
tert-Butyl acetate	83	CH <sub>3</sub> COOC(CH <sub>3</sub> ) <sub>3</sub>	540-88-5	200	950	250	1190	
Butyl acrylate	84	CH <sub>2</sub> =CHCOOC <sub>2</sub> H <sub>5</sub>	141-32-2	2	11	—	—	[06]
n-Butyl alcohol	76	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OH	71-36-3	—	—	50	150	Sk
sec-Butyl alcohol	77	CH <sub>3</sub> CH(OH)CH <sub>2</sub> CH <sub>3</sub>	78-92-2	100	300	150	450	
tert-Butyl alcohol	85	(CH <sub>3</sub> ) <sub>3</sub> COH	75-65-0	100	300	150	450	
n-Butylamine	86	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> NH <sub>2</sub>	109-73-9	—	—	C5	C15	Sk [06]
Butyl benzyl phthalate	48	C <sub>11</sub> H <sub>12</sub> O <sub>4</sub>	85-68-7	—	5	—	—	
n-Butyl chloroformate	88	ClCO <sub>2</sub> C <sub>4</sub> H <sub>10</sub>	592-34-7	1	5,6	—	—	
n-Butyl glycidyl ether [BGE]	89	C <sub>4</sub> H <sub>9</sub> OCH <sub>2</sub> CHCH <sub>2</sub> O	2426-08-6	25	135	—	—	
n-Butyl lactate	90	CH <sub>3</sub> CH(OH)COOC <sub>2</sub> H <sub>5</sub>	138-22-7	5	25	—	—	
2-sec- Butylphenol	91	C <sub>9</sub> H <sub>10</sub> (CH <sub>3</sub> )CHC <sub>6</sub> H <sub>4</sub> OH	89-72-5	5	30	—	—	Sk
*Cadmium & cadmium compounds, except cadmium oxide fume, cadmium sulphide and cadmium sulphide pigments [as Cd]	92	Cd	7440-43-9 (metal)	—	0,01	—	—	[06]
*Cadmium oxide fume [as Cd]	93	CdO	1306-19-0	—	0,01	—	0,050	[06]
*Cadmium sulphide and cadmium sulphide pigments respirable particulate [as Cd]	94	CdS	1306-23-6	—	0,04	—	—	
Caesium hydroxide	95	CsOH	21351-79-1	—	2	—	—	
Calcium carbonate inhalable particulate respirable particulate	96	CaCO <sub>3</sub>	1317-65-3	—	10	—	—	
	97			—	5	—	—	
Calcium cyanamide	98	CaNC=N	156-62-7	—	0,5	—	1	
Calcium cyanide	335	Ca(CN) <sub>2</sub>	592-01-8	see Hydrogen and cyanide salts				
Calcium hydroxide	99	Ca(OH) <sub>2</sub>	1305-62-0	—	5	—	—	
Calcium oxide	100	CaO	1305-78-	—	2	—	—	
Calcium silicate inhalable particulate respirable particulate	101	CaSiO <sub>4</sub>	1344-95-2	—	10	—	—	
	102			—	5	—	—	
Camphor, synthetic	61	C <sub>10</sub> H <sub>16</sub> O	76-22-2	2	12	3	18	
Caprolactam particulate inhalable vapour	104	NH(CH <sub>2</sub> ) <sub>5</sub> CO	105-60-2	—	1	—	3	
	105			5	20	10	40	
Captafol	106	C <sub>10</sub> H <sub>8</sub> Cl <sub>2</sub> NO <sub>2</sub> S	242 5-06-1	—	0,1	—	—	Sk
Captan	107	C <sub>6</sub> H <sub>5</sub> Cl <sub>3</sub> NO <sub>2</sub> S	133-06-2	—	5	—	15	
Carbaryl	108	CH <sub>3</sub> NHCOOC <sub>10</sub> H <sub>7</sub>	63-25-2	—	5	—	10	
Carbofuran	109	C <sub>12</sub> H <sub>15</sub> NO <sub>3</sub>	1563-66-2	—	0,1	—	—	
Carbon black	110	C	1333-86-4	—	3,5	—	7	
Carbon dioxide	111	CO <sub>2</sub>	124-38-9	5000	9000	C 30000	C 54000	
*Carbon disulphide	112	CS <sub>2</sub>	75-15-0	10	30	—	—	Sk
Carbon monoxide	113	CO	630-08-0	30	35	C100	C115	[06]
Carbon tetrabromide	114	CBr <sub>4</sub>	558-13-4	0,1	1,4	0,3	4	
Carbon tetrachloride	115	CCl <sub>4</sub>	56-23-5	2	12,6	—	—	Sk
Carbonyl chloride	116	COCl <sub>2</sub>	75-44-5	see Phosgene				
Catechol	117	C <sub>6</sub> H <sub>5</sub> (OH) <sub>2</sub>	120-80-9	5	20	—	—	
Cellulose inhalable particulate respirable particulate	118	(C <sub>6</sub> H <sub>10</sub> O <sub>5</sub> ) <sub>n</sub>	9004-34-6	—	10	—	20	
	119			—	5	—	—	

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Cement inhalable particulate respirable particulate	120	—	—	—	10	—	—	
	121	—	—	—	5	—	—	
Chlordane	122	C <sub>10</sub> H <sub>8</sub> Cl <sub>8</sub>	57-74-9	—	0,5	—	2	Sk
Chlorine	123	Cl <sub>2</sub>	7782-50-5	0,5	1,5	1	3	
Chlorodiphenyl (PCBs)								
Chlorodiphenyl (42% chlorine)	124	C <sub>6</sub> H <sub>4</sub> ClC <sub>6</sub> H <sub>5</sub> Cl <sub>2</sub> (Approx)	53469-21-9	—	1	—	2	Sk
Chlorodiphenyl (54% chlorine)	125	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub> C <sub>6</sub> H <sub>5</sub> Cl <sub>3</sub> (Approx)	11097-69-1	—	0,5	—	1	Sk
Chlorine dioxide	126	ClO <sub>2</sub>	10049-04-4	0,1	0,3	0,3	0,9	
Chlorine trifluoride	127	ClF <sub>3</sub>	7790-91-2	—	—	C0,1	C0,4	[06]
Chloroacetaldehyde	128	ClCH <sub>2</sub> CHO	107-20-0	—	—	C1	C3	[06]
2-Chloroacetophenone	129	C <sub>6</sub> H <sub>5</sub> COCH <sub>2</sub> Cl	532-27-4	0,05	0,3	—	—	
Chloroacetyl chloride	130	ClCH <sub>2</sub> COCl	79-04-9	0,05	0,2	—	—	
Chlorobenzene	131	C <sub>6</sub> H <sub>5</sub> Cl	108-90-7	10	46	—	—	[06]
Chlorobromomethane	68	CH <sub>3</sub> BrCl	74-97-5	200	1050	250	1300	
2-Chlorobuta-1,3-diene	133	CH <sub>2</sub> =CClCH=CH <sub>2</sub>	126-99-8	see beta-Chloroprene				
Chlorodifluoromethane	134	CHClF <sub>2</sub>	75-45-6	1000	3500	—	—	
*1-Chloro-2,3- epoxy propane	135	C <sub>3</sub> H <sub>6</sub> OCl	106-89-8	see *Epichlorohydrin				
Chloroethane	136	CH <sub>3</sub> CH <sub>2</sub> Cl	75-00-3	see Ethyl chloride				
2-Chloroethanol	137	CH <sub>2</sub> ClCH <sub>2</sub> OH	107-07-3	see Ethylene chlorhydrin				
*Chloroethylene VCM)	138	H <sub>2</sub> C=C=Cl	75-01-4	see *Vinyl chloride				
Chloroform	139	CHCl <sub>3</sub>	67-66-3	2	9,8	—	—	Sk
Chloromethane	140	CH <sub>3</sub> Cl	74-87-3	see Methyl chloride				
1-Chloro-4-nitrobenzene	141	ClC <sub>6</sub> H <sub>4</sub> NO <sub>2</sub>	100-00-5	—	0,1	—	2	Sk [06]
Chloropentafluoroethane	142	CClF <sub>2</sub> CF <sub>3</sub>	76-15-3	1000	6320	—	—	
Chloropicrin	143	CCl <sub>2</sub> NO <sub>2</sub>	76-06-2	0,1	0,7	0,3	2	
beta-Chloroprene	133	CH <sub>2</sub> -C(Cl)CH=CH <sub>2</sub>	126-99-8	10	36	—	—	Sk
3-Chloropropylene	13	CH <sub>2</sub> =C(Cl)CH <sub>2</sub> Cl	107-05-1	see Allyl chloride				
Chlorosulphonic acid	144	HSCl <sub>3</sub>	7790-94-5	—	1	—	—	
alpha-Chlorotoluene	49	C <sub>6</sub> H <sub>5</sub> CH <sub>2</sub> Cl	100-44-7	see Benzyl chloride				
2-Chlorotoluene	145	ClC <sub>6</sub> H <sub>4</sub> CH <sub>3</sub>	95-49-8	50	250	—	—	
2-Chloro-6-(trichloromethyl) pyridine	146	ClC <sub>6</sub> H <sub>3</sub> NCCl <sub>3</sub>	1929-82-4	see Nitrapyrin				
Chlorpyrifos	147	C <sub>9</sub> H <sub>11</sub> Cl <sub>3</sub> NO <sub>3</sub> PS	2921-88-2	—	0,2	—	0,6	Sk
Chromium, metal and inorganic compounds [as Cr]			7440-47-3 (metal)					
Cr[II] compounds	148	Cr	—	—	0,5	—	—	
Metal and Cr [III] compounds	149		—	—	0,5	—	—	
Cr [VI] compounds	150		—	—	0,05	—	—	
Coal dust [respirable particulate]	151	—	—	—	2	—	—	[g] [06]
Coal tar pitch volatiles [as cyclohexane soluble]	152	—	65996-93-2	—	0,14	—	—	
*Cobalt & cobalt compounds [as Co]	153	Co	7440-48-4	—	0,05	—	—	[06]
Copper								
Fume	154	Cu	1317-38-0	—	0,2	—	—	
Dusts & mists (as Cu)	155	7440-50-8	—	1	—	2		

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/ OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Cotton dust	156	—	—	—	0,2	—	—	[d] [06]
Cresols, all isomers	151A	CH <sub>3</sub> C <sub>6</sub> H <sub>5</sub> OH	1319-77-3	5	22	—	—	Sk
Cristobalite	521	—	14464-46-1			see Silica, crystalline		
Crotonaldehyde	79	CH <sub>3</sub> CH=CHCHO	4170-30-3	2	6	18	6	
Cryofluorane [INN]	156	CCl <sub>2</sub> F <sub>2</sub> COF <sub>2</sub>	76-14-2			see 1,2-Dichlorotetrafluoroethane		
Cumene	159	C <sub>6</sub> H <sub>5</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	98-82-8	25	120	75	370	Sk
Cyanamide	160	NH <sub>2</sub> CN	420-04-2	—	2	—	—	
Cyanides, except hydrogen cyanide, cyanogen & cyanogen chloride	335-337	—	57-12-5			see Hydrogen cyanide and cyanide salts		
Cyanogen	161	(CN) <sub>2</sub>	460-19-5	10	20	—	—	
Cyanogen chloride	162	ClCN	506-77-4	—	—	C0,3	C0,6	[06]
Cyclohexane	163	C <sub>6</sub> H <sub>12</sub>	110-82-7	100	340	300	1030	
Cyclohexanol	164	C <sub>6</sub> H <sub>11</sub> OH	108-93-0	50	200	—	—	
Cyclohexanone	165	C <sub>6</sub> H <sub>10</sub> O	108-94-1	25	100	50	200	[06]
Cyclohexene	166	C <sub>6</sub> H <sub>11</sub>	110-83-8	300	1015	—	—	
Cyclohexylamine	167	C <sub>6</sub> H <sub>11</sub> NH <sub>2</sub>	108-91-8	10	40	—	—	
Cyclonite (RDX)	168	C <sub>6</sub> H <sub>2</sub> N <sub>3</sub> O <sub>8</sub>	121-82-4	—	1,5	—	3	Sk
Cyhexatin	169	(C <sub>6</sub> H <sub>11</sub> ) <sub>2</sub> SnOH	13121-70-5	—	5	—	10	
2,4-D	170	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub> OCH <sub>2</sub> COOH	94-75-7	—	10	—	20	
DDT	171	(C <sub>6</sub> H <sub>4</sub> Cl) <sub>2</sub> CHCCl <sub>3</sub>	50-29-3	—	1	—	3	
DDVP	172	(CH <sub>2</sub> O) <sub>2</sub> POOC=CCl <sub>2</sub>	62-73-7			see Dichlorvos		
2,4-DES	173	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub> NaO <sub>3</sub> S	136-78-7			see Sodium 2,4-dichlorophenoxyethyl sulphate		
DMDT	55	(C <sub>6</sub> H <sub>4</sub> OCH <sub>3</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	72-43-5			see Methoxychlor		
Derris, commercial	175	C <sub>23</sub> H <sub>22</sub> O <sub>6</sub>	83-79-4			see Rotenone		
Diacetone alcohol	176	CH <sub>3</sub> COCH <sub>2</sub> C(CH <sub>3</sub> ) <sub>3</sub>	123-42-2	50	240	75	360	
Dialkyl 79 phthalate	177	C <sub>6</sub> H <sub>4</sub> (COOC <sub>7,9</sub> H <sub>15,17</sub> ) <sub>2</sub>	—	—	5	—	—	
Diethyl phthalate	178	C <sub>6</sub> H <sub>4</sub> (COOCH <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub>	131-17-9	—	5	—	—	
2,2'-Diaminodiethylamine	179	(NH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub> NH	111-40-0			see Diethylene triamine		
*4,4'-Diaminodiphenylmethane [DADPM, DDM]	180	CH <sub>2</sub> (C <sub>6</sub> H <sub>4</sub> NH <sub>2</sub> ) <sub>2</sub>	101-77-9			see '4,4'-Methyleneedianiline		
1,2-Diaminoethane	181	NH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> NH <sub>2</sub>	107-15-3			see Ethylene diamine		
Diammonium peroxodisulphate [as S <sub>2</sub> O <sub>8</sub> <sup>2-</sup> ]	182	(NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	7727-54-0	—	1	—	—	
Diatomaceous earth, natural (respirable particulate)	183	SiO <sub>2</sub>	68855-54-9	—	1,5	—	—	
Diazinon	184	C <sub>12</sub> H <sub>21</sub> N <sub>2</sub> O <sub>4</sub> PS	333-41-5	—	0,1	—	0,3	Sk
Diazomethane	185	CH <sub>2</sub> N <sub>2</sub>	334-88-3	0,2	0,4	—	—	
Dibenzoyl peroxide	47	(C <sub>6</sub> H <sub>5</sub> C(=O) <sub>2</sub> O) <sub>2</sub>	94-36-0			see Benzoyl peroxide		
Dibismuth tritelluride	56-57	Bi <sub>2</sub> T <sub>3</sub>	1304-82-1			see Bismuth telluride		
Diborane	186	B <sub>2</sub> H <sub>6</sub>	19287-45-7	0,1	0,1	—	—	
Diboron trioxide	62	B <sub>2</sub> O <sub>3</sub>	1303-86-2			see Boron oxide		
Dibrom	187	C <sub>2</sub> H <sub>2</sub> Br <sub>2</sub> Cl <sub>2</sub> O <sub>2</sub> P	300-76-5			see Naled		
1,2-Dibromo-2,2-dichloroethyl dimethyl phosphate	187	C <sub>2</sub> H <sub>2</sub> Br <sub>2</sub> Cl <sub>2</sub> O <sub>4</sub> P	300-76-5			see Naled		
Dibromodifluoromethane	188	CBr <sub>2</sub> F <sub>2</sub>	75-61-6	100	860	150	1290	
*1,2-Dibromoethane	189	BrCH <sub>2</sub> CH <sub>2</sub> Br	106-93-4			see Ethylene dibromide		
Dibutyl hydrogen phosphate	190	(C <sub>4</sub> H <sub>9</sub> O <sub>4</sub> ) <sub>2</sub> (OH)PO	107-66-4			see Dibutyl phosphate		
Dibutyl phosphate	190	(C <sub>4</sub> H <sub>9</sub> O <sub>4</sub> ) <sub>2</sub> (OH)PO	107-66-4	1	5	2	10	
Dibutyl phthalate	191	C <sub>6</sub> H <sub>4</sub> (CO <sub>2</sub> C <sub>4</sub> H <sub>9</sub> ) <sub>2</sub>	84-74-2	—	5	—	10	

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Dichloroacetylene	192	CIC=CCl	7572-29-4	—	—	0.1	0.4	[06]
1,2-Dichlorobenzene	193	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	95-50-1	20	120	50	300	[06]
1,4-Dichlorobenzene	194	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	106-49-7	25	150	50	300	
Dichlorodifluoromethane	195	CCl <sub>2</sub> F <sub>2</sub>	75-71-8	1000	4050	1250	6200	
1,3-Dichloro-5,5-dimethyl 2 hydantoin	196	C <sub>5</sub> H <sub>8</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>2</sub>	118-52-5	—	0,2	—	0,4	
Dichlorodiphenylchloroethane	171	(C <sub>6</sub> H <sub>5</sub> Cl) <sub>2</sub> CHHCCl <sub>3</sub>	50-29-3	see DDT				
1,1-Dichloroethane	197	CH <sub>3</sub> CHCl <sub>2</sub>	75-34-3	100	405	200	810	[06]
*1,2-Dichloroethane	198	ClCH <sub>2</sub> CH <sub>2</sub> Cl	107-06-2	see "Ethylene dichloride"				
*1,1-Dichloroethylene	199	CH <sub>2</sub> =CCl <sub>2</sub>	75-35-4	see "Vinylidene chloride"				
1,2-Dichloroethylene cis & trans isomers	200	ClCH=CHCl	540-59-0	200	790	250	1000	
Dichlorofluoromethane	201	CHCl <sub>2</sub> F	75-43-4	10	40	—	—	
*Dichloromethane	202	CH <sub>2</sub> Cl <sub>2</sub>	75-09-2	see "Methylene chloride"				
*2,2-Dichloro-4,4'-methylene dianiline	203	CH <sub>2</sub> (C <sub>6</sub> H <sub>5</sub> CINH <sub>2</sub> ) <sub>2</sub>	101-14-4	see "4,4'-Methylenebis(2-chloroaniline)"				
2,4-Dichlorophenoxyacetic acid	170	C <sub>6</sub> H <sub>5</sub> Cl <sub>2</sub> OCH <sub>2</sub> COOH	94-75-7	see 2,4-D				
1,3-Dichloropropene cis & trans isomers	204	ClHC=CHCH <sub>2</sub> Cl	542-75-6	1	5	10	50	Sk
1,2-Dichlorotetrafluoroethane	158	CClF <sub>2</sub> CClF <sub>2</sub>	76-14-2	1000	7000	1250	8750	
Dichloros	172	(CH <sub>3</sub> O) <sub>2</sub> POOCH=CCl <sub>2</sub>	62-73-7	0,1	1	0,3	3	Sk
Dicyclohexyl phthalate	206	C <sub>6</sub> H <sub>11</sub> (COOC <sub>8</sub> H <sub>17</sub> ) <sub>2</sub>	84-61-7	—	5	—	—	
Dicyclopentadiene	207	C <sub>5</sub> H <sub>8</sub>	77-73-6	5	30	—	—	
Dicyclopentadienyl iron	208	(C <sub>5</sub> H <sub>8</sub> ) <sub>2</sub> Fe	102-54-5	—	10	—	20	
Dieldrin	209	C <sub>11</sub> H <sub>8</sub> Cl <sub>2</sub> O	60-57-1	—	0,25	—	0,75	Sk
Diethanolamine	210	(CH <sub>3</sub> CH <sub>2</sub> OH) <sub>2</sub> NH	111-42-2	3	15	—	—	
Diethylamine	211	(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> NH	109-89-7	10	30	25	75	
2-Diethylaminoethanol	212	(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> NCH <sub>2</sub> CH <sub>2</sub> OH	100-37-8	10	50	—	—	Sk
Diethylene glycol	213	(CH <sub>2</sub> CH <sub>2</sub> OH) <sub>2</sub> O	111-46-6	23	100	—	—	
Diethylene triamine	179	(NH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> ) <sub>3</sub> NH	111-40-0	1	4	—	—	Sk
Diethyl ether	214	C <sub>2</sub> H <sub>5</sub> OC <sub>2</sub> H <sub>5</sub>	60-29-7	see Ethyl ether				
Di-(2-ethylhexyl) phthalate [DEHP]	54	C <sub>6</sub> H <sub>4</sub> (COOC <sub>8</sub> H <sub>17</sub> ) <sub>2</sub>	117-81-7	—	5	—	10	
Diethyl ketone	216	CH <sub>3</sub> CH <sub>2</sub> COCH <sub>2</sub> CH <sub>3</sub>	96-22-0	200	700	250	675	
Diethyl phthalate	217	C <sub>6</sub> H <sub>4</sub> COOC <sub>2</sub> H <sub>5</sub>	84-66-2	—	5	—	10	
Difluorochloromethane	134	CHClF <sub>2</sub>	75-45-6	see Chlorodifluoromethane				
Diglycidyl ether [DGE]	53	(OCH <sub>2</sub> CHCH <sub>2</sub> ) <sub>2</sub> O	2238-07-5	0,1	0,6	—	—	
o-Dihydroxybenzene	117	C <sub>6</sub> H <sub>4</sub> (OH) <sub>2</sub>	120-80-9	see Catechol				
m-Dihydroxybenzene	219	C <sub>6</sub> H <sub>4</sub> (OH) <sub>2</sub>	108-48-3	see Resorcinol				
p-Dihydroxybenzene	220	C <sub>6</sub> H <sub>4</sub> (OH) <sub>2</sub>	123-31-9	see Hydroquinone				
1,2-Dihydroxyethane	283-284	HOCH <sub>2</sub> CH <sub>2</sub> OH	107-21-1	see Ethylene glycol				
Disobutyl ketone	221	(CH <sub>3</sub> ) <sub>2</sub> C(HC <sub>2</sub> ) <sub>2</sub> CO	108-83-8	25	150	—	—	
Disobutyl phthalate	222	C <sub>6</sub> H <sub>4</sub> (COOCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub> ) <sub>2</sub>	84-69-5	—	5	—	—	
Disodecyl phthalate	223	(C <sub>10</sub> H <sub>21</sub> ) <sub>2</sub> CO <sub>2</sub> C <sub>6</sub> H <sub>4</sub>	26761-40-0	—	5	—	—	
Disononyl phthalate	224	C <sub>6</sub> H <sub>4</sub> (COOC <sub>9</sub> H <sub>19</sub> ) <sub>2</sub>	28553-12-0	—	5	—	—	
Disooctyl phthalate	225	C <sub>6</sub> H <sub>4</sub> (CO <sub>2</sub> C <sub>7</sub> H <sub>15</sub> ) <sub>2</sub>	27554-26-3	—	5	—	—	
Disopropylamine	226	(CH <sub>3</sub> ) <sub>2</sub> CHNHNH(CH <sub>3</sub> ) <sub>2</sub>	108-18-9	5	20	—	—	
Disopropyl ether	227	(CH <sub>3</sub> ) <sub>2</sub> CHOCH(CH <sub>3</sub> ) <sub>2</sub>	108-20-3	see Isopropyl ether				
Di-linear 79 phthalate	177	C <sub>6</sub> H <sub>4</sub> (COOC <sub>7</sub> H <sub>15</sub> ) <sub>2</sub>	—	see Dialkyl 79 phthalate				
Dimethoxymethane	228	CH <sub>2</sub> (OCH <sub>3</sub> ) <sub>2</sub>	109-87-5	see Methylal				
N,N-Dimethylacetamide	229	CH <sub>3</sub> CON(CH <sub>3</sub> ) <sub>2</sub>	127-19-5	10	36	20	71	Sk
Dimethylamine	230	(CH <sub>3</sub> ) <sub>2</sub> NH	124-40-3	10	18	—	—	

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
N,N-Dimethylaniline	231	C <sub>6</sub> H <sub>5</sub> N(CH <sub>3</sub> ) <sub>2</sub>	121-69-7	5	25	10	50	Sk
1,3-Dimethylbutyl acetate	232	C <sub>9</sub> H <sub>16</sub> O <sub>2</sub>	108-84-9			see sec-Hexyl acetate		
Dimethyl ether	233	CH <sub>3</sub> OCH <sub>3</sub>	115-10-6	400	750	500	940	
N,N-Dimethylethylamine [DMEA]	234	C <sub>2</sub> H <sub>5</sub> (CH <sub>3</sub> ) <sub>2</sub> N	598-56-1	10	30	15	45	
Dimethylformamide	235	HCON(CH <sub>3</sub> ) <sub>2</sub>	68-12-2	10	30	20	60	Sk
2,6-Dimethylheptan-4-one	221	[C(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>3</sub> ] <sub>2</sub> CO	108-83-8			see Diisobutyl ketone		
Dimethyl phthalate	236	C <sub>8</sub> H <sub>14</sub> (COOCH <sub>3</sub> ) <sub>2</sub>	131-11-3	—	5	—	10	
Dimethyl sulphate	237	(CH <sub>3</sub> ) <sub>2</sub> SO <sub>4</sub>	77-78-1	0.1	0.5	0.1	0.5	Sk
Dinitrobenzene, all isomers	238	C <sub>6</sub> H <sub>4</sub> (NO <sub>2</sub> ) <sub>2</sub>	25154-54-5	0.15	1	0.5	3	Sk
Dinitro-o-cresol	239	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> (OH)(NO <sub>2</sub> ) <sub>2</sub>	534-52-1	—	0.2	—	0.6	Sk
Dinitrotoluene	240	CH <sub>3</sub> C <sub>6</sub> H <sub>3</sub> (NO <sub>2</sub> ) <sub>2</sub>	25321-14-6	—	0.2	—	5	Sk [06]
Dinonyl phthalate	241	C <sub>20</sub> H <sub>34</sub> (COOC <sub>6</sub> H <sub>13</sub> ) <sub>2</sub>	84-76-4	—	5	—	—	
Di-sec-octyl phthalate	54	C <sub>16</sub> H <sub>34</sub> (COOC <sub>6</sub> H <sub>13</sub> ) <sub>2</sub>	117-81-7			see Di-(2-ethylhexyl) phthalate		
1,4-Dioxane, tech grade	242	OCH <sub>2</sub> CH <sub>2</sub> OCH <sub>2</sub> CH <sub>2</sub>	123-91-1	25	90	50	180	Sk [06]
Dioxathion	243	C <sub>12</sub> H <sub>20</sub> O <sub>6</sub> P <sub>2</sub> S <sub>2</sub>	78-34-2	—	0.2	—	—	Sk
Diphenyl	51	(C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub>	92-52-4			see Biphenyl		
Diphenylamine	244	(C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> NH	122-39-4	—	10	—	20	
Diphenyl ether [vapour]	245	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>5</sub>	101-84-8			see Phenyl ether, vapour		
Diphosphorus pentasulphide	246	P <sub>2</sub> S <sub>5</sub> /P <sub>4</sub> S <sub>10</sub>	1314-80-3			see Phosphorus pentasulphide		
Diphosphorus pentoxide	247	P <sub>2</sub> O <sub>5</sub> /P <sub>4</sub> O <sub>10</sub>	1314-56-3	—	1	—	2	[06]
Dipotassium peroxodisulphate [as S <sub>2</sub> O <sub>8</sub> <sup>2-</sup> ]	248	K <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	7727-21-1	—	1	—	—	
Diquat dibromide	249	C <sub>12</sub> H <sub>8</sub> Br <sub>2</sub> N <sub>2</sub>	85-00-7	—	0.5	—	1	
Disodium disulphite	250	Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>	7681-57-4			see Sodium metabisulphite		
Disodium peroxodisulphite [as Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub> ]	251	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	7775-27-1	—	1	—	—	
Disodium tetraborate	58	Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	1330-43-4			see Borates, tetra, sodium salts		
Disulfoton	252	(C <sub>6</sub> H <sub>5</sub> O) <sub>2</sub> PS CH <sub>2</sub> CH <sub>2</sub> SC <sub>6</sub> H <sub>5</sub>	298-04-4	—	0.1	—	0.3	
Disulphur decafluoride	253	S <sub>8</sub> F <sub>10</sub>	5714-22-7			see Sulphur pentafluoride		
Disulphur dichloride	254	S <sub>8</sub> Cl <sub>8</sub>	10025-67-9			see Sulphur monochloride		
2,6-Di-tert-butyl-p-cresol	255	(C <sub>7</sub> H <sub>15</sub> ) <sub>2</sub> CH <sub>2</sub> C <sub>6</sub> H <sub>4</sub> H	128-37-0	—	10	—	—	
6,6-Di-tert-butyl-4,4-thiodi-m-cresol	256	[CH <sub>3</sub> OC(H <sub>3</sub> C <sub>6</sub> H <sub>4</sub> C(SH <sub>3</sub> ) <sub>2</sub> ) <sub>2</sub> ] <sub>2</sub>	96-69-5			see 4,4'-Thiobis(6-tert-butyl- m-cresol)		
Duron	257	C <sub>6</sub> H <sub>5</sub> Cl <sub>2</sub> N <sub>2</sub> O	330-54-1	—	10	—	—	
Divanadium pentoxide	592-593	V <sub>2</sub> O <sub>5</sub>	1314-62-1			see Vanadium pentoxide		
Divinyl benzene [DVB]	258	C <sub>8</sub> H <sub>8</sub> (HC=CH <sub>2</sub> ) <sub>2</sub>	1321-74-0	10	50	—	—	
Emery inhalable particulate respirable particulate	259	Al <sub>2</sub> O <sub>3</sub>	1302-74-5	—	10	—	—	
Endosulfan	261	C <sub>10</sub> H <sub>8</sub> Cl <sub>6</sub> O <sub>3</sub> S	115-29-7	—	0.1	—	0.3	Sk
Endrin	262	C <sub>12</sub> H <sub>8</sub> Cl <sub>2</sub> O	72-20-8	—	0.1	—	0.3	Sk
Enfurane	263	CHFCIFC <sub>2</sub> OCHF <sub>2</sub>	13838-16-9	50	380	—	—	
*Epicichlorhydrin	135	C <sub>3</sub> H <sub>6</sub> OCl	106-89-8	0.5	2	1.5	6	Sk
1,2-Epoxy-4-epoxyethyl-cyclohexane	265	C <sub>8</sub> H <sub>12</sub> O <sub>2</sub>	106-87-6			see 4-Vinyl cyclohexene dioxide		
2,3-Epoxypropyl isopropyl ether	266	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	4016-14-2			see Isopropyl glycidyl ether		
Ethane 1,2-diol	283-284	HOCH <sub>2</sub> CH <sub>2</sub> OH	107-21-1			see Ethylene glycol		
Ethanethiol	267	CH <sub>3</sub> CH <sub>2</sub> SH	75-08-1			see Ethyl mercaptan		
Ethanol	268	CH <sub>3</sub> CH <sub>2</sub> OH	64-17-5	1000	1900	—	—	
Ethanolamine	22	NH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OH	141-43-5	3	8	6	15	

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Ether	214	C <sub>2</sub> H <sub>5</sub> OC <sub>2</sub> H <sub>5</sub>	60-29-7	see Ethyl ether				
*2-Ethoxyethanol [EGEE]	270	CH <sub>3</sub> CH <sub>2</sub> OCH <sub>2</sub> CH <sub>2</sub> OH	110-80-5	5	18	—	—	Sk [06]
*2-Ethoxyethyl acetate [EGEEA]	271	C <sub>4</sub> H <sub>9</sub> OCH <sub>2</sub> CH <sub>2</sub> OOCCH <sub>3</sub>	111-15-9	5	27	—	—	Sk [06]
Ethyl acetate	272	CH <sub>3</sub> COOC <sub>2</sub> H <sub>5</sub>	141-78-6	200	700	—	—	[06]
Ethyl acrylate C2H5	273	CH <sub>2</sub> =CHCOO	140-88-5	5	20	15	60	
Ethyl alcohol	268	CH <sub>3</sub> CH <sub>2</sub> OH	64-17-5	see Ethanol				
Ethyamine	274	CH <sub>3</sub> CH <sub>2</sub> NH <sub>2</sub>	75-04-7	5	9	—	—	[06]
Ethyl amyl ketone	275	C <sub>9</sub> H <sub>18</sub> O	541-85-5	25	130	—	—	
Ethyl benzene	276	CH <sub>3</sub> CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub>	100-41-4	100	435	125	545	
Ethyl bromide	69	CH <sub>3</sub> CH <sub>2</sub> Br	74-96-4	5	22	—	—	[06]
Ethyl butyl ketone	278	CH <sub>3</sub> CH <sub>2</sub> CO(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>	106-35-4	50	240	75	345	
Ethyl chloride	136	CH <sub>3</sub> CH <sub>2</sub> Cl	75-00-3	100	260	—	—	[06]
Ethyl chloroformate	280	ClCO <sub>2</sub> C <sub>2</sub> H <sub>5</sub>	541-41-3	1	4.4	—	—	
Ethylene chlorohydrin	137	CH <sub>2</sub> CICH <sub>2</sub> OH	107-07-3	—	—	1	3	Sk
Ethylene diamine	181	NH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> NH <sub>2</sub>	107-15-3	10	25	—	—	
*Ethylene dibromide	189	BrCH <sub>2</sub> CH <sub>2</sub> Br	106-93-4	0.5	4	—	—	Sk
*Ethylene dichloride	198	ClCH <sub>2</sub> CH <sub>2</sub> Cl	107-06-2	5	20	—	—	Sk
Ethylene dinitrate	282	O <sub>2</sub> NOCH <sub>2</sub> CH <sub>2</sub> ONO <sub>2</sub>	628-98-6	see Ethylene glycol dinitrate				
Ethylene glycol	283-284	HOCH <sub>2</sub> CH <sub>2</sub> OH	107-21-1	20	—	40	—	[06]
Ethylene glycol dinitrate	282	O <sub>2</sub> NOCH <sub>2</sub> CH <sub>2</sub> ONO <sub>2</sub>	628-96-6	0.05	0.3	0.2	1.2	Sk [06]
*Ethylene glycol ether [EGBE]	80	C <sub>2</sub> H <sub>5</sub> OCH <sub>2</sub> CH <sub>2</sub> OH	111-76-2	see *2-Butoxyethanol monobutyl				
*Ethylene glycol monoethyl ether [EGEE]	270	CH <sub>3</sub> CH <sub>2</sub> OCH <sub>2</sub> CH <sub>2</sub> OH	110-80-5	See *2-Ethoxyethanol				
*Ethylene glycol monoethyl ether acetate [EGEEA]	271	C <sub>2</sub> H <sub>5</sub> OCH <sub>2</sub> CH <sub>2</sub> OOCCH <sub>3</sub>	111-15-9	see *2-Ethoxyethyl acetate				
*Ethylene glycol monomethyl ether [EGME]	285	CH <sub>3</sub> OCH <sub>2</sub> CH <sub>2</sub> OH	109-86-4	see *2-Methoxyethanol				
*Ethylene glycol monomethyl ether acetate [EGMEA]	286	CH <sub>3</sub> COOCH <sub>2</sub> CH <sub>2</sub> OCH <sub>3</sub>	110-49-6	see *2-Methoxyethyl acetate				
Ethylenimine	38	CH <sub>2</sub> NHCH <sub>2</sub>	151-56-4	0,5	1	—	—	Sk
*Ethylene oxide	288	CH <sub>2</sub> CH <sub>2</sub> O	75-21-8	1	2	—	—	[06]
Ethyl ether	214	C <sub>2</sub> H <sub>5</sub> OC <sub>2</sub> H <sub>5</sub>	60-29-7	400	1200	500	1500	
Ethyl formate	289	CH <sub>3</sub> CH <sub>2</sub> OCHO	109-94-4	100	300	150	450	
2-Ethylhexyl chloroformate	290	ClCO <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OCH <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub>	24468-13-1	1	7.9	—	—	
Ethyldene dichloride	197	CH <sub>2</sub> CHCl <sub>2</sub>	75-34-3	see 1,1-Dichloroethane				
Ethyl mercaptan	267	CH <sub>3</sub> CH <sub>2</sub> SH	75-08-1	0,5	1	2	3	
4-Ethylmorpholine	291	C <sub>6</sub> H <sub>11</sub> ONCH <sub>2</sub> CH <sub>3</sub>	100-74-3	5	23	20	95	Sk
Ethyl silicate	292	Si(O <sub>2</sub> C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub>	78-10-4	10	85	30	255	
Fenchlorphos	293	(CH <sub>2</sub> O) <sub>2</sub> PSOC <sub>6</sub> H <sub>5</sub> Cl <sub>3</sub>	299-84-3	see Ronnel				
Ferbam	294	[C(CH <sub>3</sub> ) <sub>3</sub> ]NCSS <sub>2</sub> Fe	14484-64-1	—	10	—	20	
Ferrocene	208	[C <sub>5</sub> H <sub>5</sub> ] <sub>2</sub> Fe	102-54-5	see Dicyclopentadienyl iron				
Ferrovanadium dust	295	FeV	12604-58-9	—	1	—	3	
Flammable gas (methane/ hydrogen)	296	—	—	—	—	C 1,4%	—	[e]
Flour dust	296A	—	—	—	3	—	—	[06"]
Fluorides [as F]	297	F	16984-48-8	—	2.5	—	—	
Fluorine	298	F <sub>2</sub>	7782-41-4	1	1.5	2	3	[06]
Fluorodichloromethane	201	CHCl <sub>2</sub> F	75-43-4	see Dichlorofluoromethane				
Fluorotrichloromethane	299	CCl <sub>3</sub> F	75-69-4	see Trichlorofluoromethane				
*Formaldehyde	300	HCHO	50-00-0	1	12	2	2.5	[06]

Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Formamide	301	HCONH <sub>2</sub>	75-12-7	10	15	30	45	[06]
Formic acid	302	HCOOH	64-18-6	5	9	—	—	
2-Furaldehyde	303	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	98-01-1			see Furfural		
Furfural	303	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	98-01-1	2	8	10	40	Sk
Furfuryl alcohol	304	OCH=CHCH=CCH <sub>2</sub> OH	88-00-0	5	20	15	60	Sk
Gasoline	305	—	8006-61-9	300	—	500	—	
Germane	306	GeH <sub>4</sub>	7782-65-2			see Germanium tetrahydride		
Germanium tetrahydride	306	GeH <sub>4</sub>	7782-65-2	0,2	0,6	0,6	1,8	
Glutaraldehyde	307	OCH(CH <sub>2</sub> ) <sub>2</sub> CHO	111-30-8	—	—	C0,1	C0,35	[06]
Glycerol, mist	308	HOCH <sub>2</sub> CH(OH)CH <sub>2</sub> OH	56-81-5	10	—	—	—	
Glycerol	309	CH <sub>3</sub> NO <sub>2</sub> CHNO <sub>2</sub> CH <sub>3</sub> NO <sub>3</sub>	55-63-0			see Nitroglycerine trinitrate		
Glycol monoethyl	270	CH <sub>3</sub> CH <sub>2</sub> OCH <sub>2</sub> CH <sub>2</sub> OH	110-80-5			see "2-Ethoxyethanol ether		
Graphite, natural & synthetic inhalable particulate respirable particulate	310	C	7440-44-0	—	10	—	—	
	311		7782-42-5	—	5	—	—	
*Grain dust (oat, wheat, barley)	312	—	—	—	4	—	—	Sen [06]
Guthion	37	C <sub>10</sub> H <sub>19</sub> O <sub>3</sub> PS <sub>2</sub> N <sub>3</sub>	86-50-0			see Azinphos-methyl		
Gypsum						—	—	
inhalable particulate	313	CaSO <sub>4</sub> 2H <sub>2</sub> O	13397-24-5	—	10	—	—	
respirable particulate	314			—	5	—	—	
gamma-HCH	39	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	58-89-9			see Lindane		
Hafnium	316	Hf	7440-58-6	—	0,5	—	1,5	
Halothane	317	CF <sub>3</sub> CHClBr	151-67-7	10	80	—	—	
Heptachlor	318	C <sub>10</sub> H <sub>6</sub> Cl <sub>7</sub>	76-44-8	—	0,5	—	2	Sk
n-Heptane	319	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub>	142-82-5	400	1600	500	2000	
Heptan-2-one	320	CH <sub>3</sub> CO(CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub>	110-43-0			see Methyl n-amyl ketone		
Heptan-3-one	278	CH <sub>3</sub> CH <sub>2</sub> CO(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>	106-35-4			see Ethyl butyl ketone		
gamma-Hexachlorocyclohexane	39	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	58-89-9			see Lindane		
Hexachloroethane						—	—	
vapour	321			1	10	—	—	[06]
inhalable particulate	322	CCl <sub>3</sub> CCl <sub>3</sub>	67-72-1	10	—	—	—	
respirable particulate	323			5	—	—	—	
Hexahydro-1,3,5-trinitro-1,3,5-triazine	168	C <sub>3</sub> H <sub>6</sub> N <sub>6</sub> O <sub>6</sub>	121-82-4			see Cyclonite		
Hexane, all isomers except n-Hexane	324	C <sub>6</sub> H <sub>14</sub>	—	500	1800	1000	3800	
n-Hexane	325	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub>	110-54-3	20	70	—	—	
1,6-Hexanolactam	104-105	NH(CH <sub>2</sub> ) <sub>5</sub> CO	105-60-2			see Caprolactam		
Hexan-2-one	326	CH <sub>3</sub> CO(CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub>	591-78-6			see Methyl n-butyl ketone		
Hexone	327	CH <sub>3</sub> COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	108-10-1			see Methyl isobutyl ketone		
sec-Hexyl acetate	232	C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	108-84-9	50	300	100	600	
Hexylene glycol	328	(CH <sub>3</sub> ) <sub>2</sub> COHCH <sub>2</sub> CHOCOHCH <sub>3</sub>	107-41-5	—	—	C25	C125	[06]
Hydrazine	329	H <sub>2</sub> NNH <sub>2</sub>	302-01-2	0,02	0,02	—	—	Sk [06]
Hydrazoic acid [as vapour]	330	HN <sub>3</sub>	7782-79-8	—	—	0,1	—	
Hydrogen	331	H <sub>2</sub>	1333-74-0	—	—	C1,4%	—	[f]
Hydrogen bromide	332	HBr	10035-10-6	—	—	2	7	[06]
Hydrogen chloride	333	HCl	7647-01-0	—	—	C5	C7	[06]

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Hydrogen—cyanide and cyanide salts [as CN]		—	—	—	—	—	—	
*Hydrogen cyanide	334	HCN	74-90-8	—	—	C 10	C 10	Sk
Calcium cyanide	335	Ca(CN) <sub>2</sub>	582-01-8	—	—	—	—	C5 Sk
Potassium cyanide	336	KCN	151-50-8	—	—	—	—	C5 Sk
Sodium cyanide	337	NaCN	143-33-9	—	—	—	—	C5 Sk
Hydrogen fluoride [as F]	338	HF	7664-39-3	—	—	3	2,5	
Hydrogen peroxide	339	H <sub>2</sub> O <sub>2</sub>	7722-84-1	1	1,5	2	3	
Hydrogen selenide [as Se]	340	H <sub>2</sub> Se	7783-07-5	0,05	0,2	—	—	
Hydrogen sulphide	341	H <sub>2</sub> S	7783-06-4	10	14	15	21	
Hydroquinone	220	C <sub>6</sub> H <sub>4</sub> (OH) <sub>2</sub>	123-31-9	—	2	—	4	
4-Hydroxy-4- methyl-pentan-2-one	176	CH <sub>3</sub> COCH <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub> OH	123-42-2	see Diacetone alcohol				
2-Hydroxypropyl acrylate	342	C <sub>6</sub> H <sub>11</sub> O <sub>3</sub>	999-61-1	0,5	3	—	—	Sk
2,2'- Iminodioethanol	210	(CH <sub>2</sub> CH <sub>2</sub> OH) <sub>2</sub> NH	111-42-2	see Diethanolamine				
2,2'- Iminodi(ethylamine)	179	(NH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub> NH	111-40-0	see Diethylene triamine				
Indene	343	C <sub>8</sub> H <sub>8</sub>	95-13-6	10	45	15	70	
Indium & compounds [as In]	344	In	7440-74-6	—	0,1	—	0,3	
Iodine	345	I <sub>2</sub>	7553-56-2	—	—	0,1	1	
Iodoform	346	CHI <sub>3</sub>	75-47-8	0,6	10	1	20	
Iodomethane	347	CH <sub>3</sub> I	74-88-4	see Methyl iodide				
Iron oxide, dust & fume [as Fe]	348	Fe <sub>2</sub> O <sub>3</sub>	1309-37-1	—	5	—	10	
Iron pentacarbonyl	349	Fe(CO) <sub>5</sub>	13463-40-6	0,1	0,8	0,2	1,6	[06]
Iron salts [as Fe]	350	—	—	—	1	—	2	
Isocamyl acetate	351	CH <sub>3</sub> COOCl <sub>2</sub> , Cl <sub>2</sub> CH(Cl) <sub>2</sub>	123-92-2	50	262	100	525	[06]
Isocamyl alcohol	352	(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> CH <sub>2</sub> OH	123-51-3	100	360	125	450	
Isocamyl methyl ketone	353	CH <sub>3</sub> COCH <sub>2</sub> CH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	110-12-3	see Methyl isocamyl ketone				
Isobutyl acetate	354	CH <sub>3</sub> COOCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	110-19-0	150	700	187	875	
Isobutyl alcohol	355	(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> OH	78-83-1	50	150	75	225	
Isobutyl methyl ketone	327	CH <sub>3</sub> COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	108-10-1	see Methyl isobutyl ketone				
*Isocyanates, all [as—NCO]	356	—	—	0,005	—	0,02	—	Sen [06]
Isofluorane	357	CF <sub>3</sub> CHClOCHF <sub>2</sub>	26675-46-7	50	380	—	—	
Isooctyl alcohol [mixed isomers]	358	C <sub>8</sub> H <sub>17</sub> OH	26952-21-6	50	270	—	—	
Isopentyl acetate	351	CH <sub>3</sub> COOCH <sub>2</sub> CH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	123-92-2	see Isoamyl acetate				
Isophorone	359	C <sub>8</sub> H <sub>14</sub> O	78-59-1	—	—	C5	C25	[06]
Isophorone [IPDI]	360	C <sub>8</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub>	4098-71-9	see *Isocyanates diisocyanate				
Isopropyl acetate	361	CH <sub>3</sub> COOCH(CH <sub>3</sub> ) <sub>2</sub>	108-21-4	—	—	200	840	
Isopropyl alcohol	362	(CH <sub>3</sub> ) <sub>2</sub> CHOH	67-63-0	400	980	500	1225	
Isopropyl benzene	159	C <sub>8</sub> H <sub>10</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	98-82-8	see Cumene				
Isopropyl chloroformate	363	ClCO <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	108-23-6	1	5	—	—	
Isopropyl ether	227	(CH <sub>3</sub> ) <sub>2</sub> CHOCH(OH) <sub>2</sub>	108-20-3	250	1050	310	1320	
Isopropyl glycidyl ether [IGE]	266	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	4016-14-2	50	240	75	360	
Kaolin, respirable particulate	364	Al <sub>2</sub> Si <sub>2</sub> O <sub>10</sub> (OH) <sub>8</sub>	1332-58-7	—	2,5	—	—	
Ketene	365	CH <sub>2</sub> =CO	463-51-4	0,5	0,9	1,5	3	
*Lead, elemental, and inorganic compounds [as Pb]	366	Pb	7439-92-1 (metal)	—	0,1	—	—	[06]
*Lead tetra- ethyl [as Pb]	367	Pb(C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub>	78-00-2	—	0,10	—	—	Sk
Lead tetra- methyl [as Pb]	368	Pb(CH <sub>3</sub> ) <sub>4</sub>	75-74-1	—	0,15	—	—	Sk [06]
Limestone	96-97	CaCO <sub>3</sub>	1317-65-3	see Calcium carbonate				
Lindane	39	C <sub>6</sub> H <sub>5</sub> Cl <sub>6</sub>	58-89-9	—	0,1	—	—	Sk

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Liquified petroleum gas [LPG]	369	Mixture: C <sub>3</sub> H <sub>8</sub> ; C <sub>3</sub> H <sub>6</sub> ; C <sub>4</sub> H <sub>10</sub> ; C <sub>5</sub> H <sub>12</sub>	68476-85-7	1000	1800	1250	2250	
Lithium hydride	370	LiH	7580-67-8	—	0,025	—	—	
Lithium hydroxide	371	LiOH	1310-65-2	—	—	—	1	
*MBOCA	203	CH <sub>3</sub> (C <sub>6</sub> H <sub>5</sub> CINH <sub>2</sub> ) <sub>2</sub>	101-14-4	see "4,4'-Methylenebis-(2-chloroaniline)				
*MDA	180	CH <sub>3</sub> (C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub> ) <sub>2</sub>	101-77-9	see "4,4'Methylene dianiline"				
*MDI	360A	CH <sub>3</sub> (C <sub>6</sub> H <sub>4</sub> NCO) <sub>2</sub>	101-68-8	see *Isocyanates				
Magnesite								
inhalable particulate	372	MgCO <sub>3</sub>	546-93-0	—	10	—	—	
respirable particulate	373			—	5	—	—	
Magnesium oxide [as Mg]								
inhalable particulate	374			—	10	—	—	
fume and respirable particulate	375	MgO	1309-48-4	—	5	—	10	
Malathion	376	C <sub>10</sub> H <sub>19</sub> O <sub>3</sub> PS <sub>2</sub>	121-75-5	—	10	—	—	Sk
Maleic anhydride	377	C <sub>4</sub> H <sub>2</sub> O <sub>3</sub>	108-31-6	0,25	1	—	—	
Manganese, elemental, and inorganic compounds [as Mn]	378	Mn	7439-96-5 (metal)	—	1	—	—	[06]
Manganese, fume [as Mn]	379	Mn	7439-96-5	—	1	—	3	
Manganese cyclopentadienyl tricarbonyl [as Mn]	380	C <sub>5</sub> H <sub>5</sub> Mn(CO) <sub>3</sub>	12079-65-1	0,1	—	0,3	Sk	
Manganese tetroxide	381	Mn <sub>2</sub> O <sub>7</sub>	1317-35-7	—	1	—	—	
Man made mineral fibres [Glass, slag and rock wool fibres]	382	—	—	—	26/ml	—	—	
Marble	96-97	CaCO <sub>3</sub>	1317-65-3	see Calcium carbonate				
Mequinol [INN]	383	CH <sub>3</sub> OC <sub>2</sub> H <sub>5</sub> OH	150-76-5	—	5	—	—	
Mercaptoacetic acid	384	HSCH <sub>2</sub> COOH	68-11-1	see Thioglycolic acid				
Mercury alkyls [as Hg]	385	—	—	—	0,01	—	0,03	Sk
Mercury and compounds, except Mercury alkyls [as Hg]	386	Hg	7439-97-6	—	0,025	—	—	
Mesityl oxide	387	(CH <sub>3</sub> ) <sub>2</sub> C=CHCOCH <sub>3</sub>	141-79-7	15	60	25	100	
Methacrylic acid	388	CH <sub>2</sub> =C(CH <sub>3</sub> )COOH	79-41-4	20	70	40	140	
Methacrylonitrile	389	CH <sub>2</sub> =C(CH <sub>3</sub> )CN	126-98-7	1	3	—	—	Sk
Methane	390	CH <sub>4</sub>	74-82-8	—	—	C 1,4%	—	[f]
Methanolthiol	391	CH <sub>3</sub> SH	74-93-1	see Methyl mercaptan				
Methanol	392	CH <sub>3</sub> OH	67-56-1	200	260	250	310	Sk
Methomyl	393	C <sub>5</sub> H <sub>11</sub> N <sub>2</sub> O <sub>2</sub>	16752-77-5	—	2,5	—	—	
Methoxychlor	55	(C <sub>6</sub> H <sub>5</sub> OCH <sub>3</sub> ) <sub>2</sub> CHCl <sub>2</sub>	72-43-5	—	10	—	—	
*2-Methoxyethanol [EGME]	285	CH <sub>3</sub> OCH <sub>2</sub> CH <sub>2</sub> OH	109-86-4	5	16	—	—	Sk
*2-Methoxyethyl acetate [EGMEA]	286	CH <sub>3</sub> COOCH <sub>2</sub> CH <sub>2</sub> OCH <sub>3</sub>	110-49-6	5	24	—	—	Sk
1-Methoxopropan-2-ol	394	CH <sub>3</sub> CHOCH <sub>2</sub> OCH <sub>3</sub>	107-98-2	see Propylene glycol monomethyl ether				
Methyl acetate	395	CH <sub>3</sub> COOCH <sub>3</sub>	79-20-9	200	610	250	760	
Methyl acrylate	396	CH <sub>2</sub> =CHCOOCH <sub>3</sub>	96-33-3	10	35	—	—	
Methylal	228	CH <sub>3</sub> (OCH <sub>3</sub> ) <sub>2</sub>	109-87-5	1000	3100	1250	3880	
Methyl alcohol	392	CH <sub>3</sub> OH	67-56-1	see Methanol				
Methylamine	397	CH <sub>3</sub> NH <sub>2</sub>	74-89-5	10	12	—	—	
Methyl n-amyl ketone	320	CH <sub>3</sub> CO(CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub>	110-43-0	50	240	100	480	Sk
N-Methylaniline	398	C <sub>6</sub> H <sub>5</sub> NHCH <sub>3</sub>	100-61-8	0,5	2	—	—	Sk
Methyl bromide	72	CH <sub>3</sub> Br	74-83-9	5	20	15	60	Sk
3-Methylbutan-1-ol	352	(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> CH <sub>2</sub> OH	123-51-3	see Isoamyl alcohol				
1-Methylbutyl acetate	28	CH <sub>3</sub> COOCH(CH <sub>3</sub> ) <sub>2</sub>	626-38-0	see sec-Amyl acetate				

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Methyl-n-butyl ketone	326	CH <sub>3</sub> CO(CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub>	591-78-6	5	20	—	—	Sk
Methyl chloride	140	CH <sub>3</sub> Cl	74-87-3	50	105	100	210	
Methyl chloroform	401	CH <sub>3</sub> CCl <sub>3</sub>	71-55-6	100	542	200	1085	[06]
Methyl 2-cyanoacrylate	402	CH <sub>3</sub> =C(CN)COOCH <sub>3</sub>	137-05-3	2	8	4	16	
Methylcyclohexane	403	CH <sub>3</sub> C <sub>6</sub> H <sub>11</sub>	108-87-2	400	1600	500	2000	
Methylcyclohexanol	404	CH <sub>3</sub> C <sub>6</sub> H <sub>11</sub> OH	25639-42-3	50	235	75	350	
2-Methylcyclohexanone	405	CH <sub>3</sub> CHCO(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>	583-60-8	50	230	75	345	Sk
Methylpentadecenyl manganese tricarbonyl [as Mn] [Mn]	406	CH <sub>3</sub> (C <sub>14</sub> H <sub>28</sub> )Mn(CO) <sub>3</sub>	12108-13-3	—	0,2	—	0,6	Sk
2-Methyl-4,6-dinitrophenol	239	CH <sub>3</sub> C <sub>6</sub> H <sub>3</sub> (OH)(NO <sub>2</sub> ) <sub>2</sub>	534-52-1	see Dinitro-o-cresol				
*4,4'-Methylenebis(2-chloroaniline) [MBOCA]	203	CH <sub>2</sub> (C <sub>6</sub> H <sub>4</sub> CINH <sub>2</sub> ) <sub>2</sub>	101-14-4	—	0,005	—	—	Sk
*Methylene chloride	202	CH <sub>2</sub> C I <sub>2</sub>	75-09-2	50	175	250	780	[06]
*4,4'-Methylene dianiline [MDA]	180	CH <sub>2</sub> (C <sub>6</sub> H <sub>4</sub> NH <sub>2</sub> ) <sub>2</sub>	101-77-9	0,01	0,08	—	—	
*4,4'-Methylene diphenyl diisocyanate [MDI]	360A	CH <sub>2</sub> (C <sub>6</sub> H <sub>4</sub> NCO) <sub>2</sub>	101-68-8	see *Isocyanates				
Methyl ethyl ketone [MEK]	78	CH <sub>3</sub> COCH <sub>2</sub> CH <sub>3</sub>	78-93-3	200	600	300	900	Sk
Methyl ethyl ketone or peroxides [MEKP]	406	C <sub>8</sub> H <sub>16</sub> O <sub>4</sub> C <sub>6</sub> H <sub>16</sub> O <sub>6</sub>	1338-23-4	—	—	C0,2	C1,5	[06]
Methyl formate	409	HCOOCH <sub>3</sub>	107-31-3	100	250	150	375	
5-Methylheptan-3-one	275	C <sub>6</sub> H <sub>13</sub> O	541-85-5	see Ethyl amyl ketone				
5-Methylhexan-2-one	353	CH <sub>3</sub> COCH <sub>2</sub> CH <sub>2</sub> CH(OH)CH <sub>3</sub>	110-12-3	see Methyl isoamyl ketone				
Methyl iodide	347	CH <sub>3</sub> I	74-88-4	2	11	5	28	Sk [06]
Methyl isoamyl ketone	353	CH <sub>3</sub> COCH <sub>2</sub> CH <sub>2</sub> CH(OH)CH <sub>3</sub>	110-12-3	50	240	75	360	Sk
Methyl isobutyl carbinol	410	(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> CH(OH)CH <sub>3</sub>	108-11-2	25	100	40	160	Sk
Methyl isobutyl ketone [MIBK]	327	CH <sub>3</sub> COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	108-10-1	20	82	50	205	Sk [06]
*Methyl isocyanate	360B	CH <sub>3</sub> NCO	624-83-9	see *Isocyanates				
Methyl mercaptan	391	CH <sub>3</sub> SH	74-93-1	0,5	1	—	—	
Methyl methacrylate	411	CH <sub>3</sub> -C(CH <sub>3</sub> ) <sub>2</sub> COOCH <sub>3</sub>	80-62-6	50	205	100	410	
Methyl parathion	412	C <sub>6</sub> H <sub>10</sub> NO <sub>3</sub> PS	298-00-0	—	0,2	—	0,6	Sk
2-Methylpentane-2,4-diol	328	(CH <sub>3</sub> ) <sub>2</sub> COHCH <sub>2</sub> CHOHCH <sub>3</sub>	107-41-5	see Hexylene glycol				
4-Methylpentan-2-ol	410	(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> CH(OH)CH <sub>3</sub>	108-11-2	see Methyl isobutyl carbinol				
4-Methylpentan-2-one	327	CH <sub>3</sub> COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	108-10-1	see Methyl isobutyl ketone				
4-Methyl-3-penten-2-one	387	(CH <sub>3</sub> ) <sub>2</sub> C=CHCOCH <sub>3</sub>	141-79-7	see Mesityl oxide				
*4-Methyl-m-phenylene diisocyanate	360C	CH <sub>3</sub> C <sub>6</sub> H <sub>3</sub> (NCO) <sub>2</sub>	584-84-9	see *Isocyanates				
2-Methylpropan-1-ol	355	(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> OH	78-83-1	see Isobutyl alcohol				
2-Methylpropan-2-ol	85	(CH <sub>3</sub> ) <sub>2</sub> COH	75-65-0	see tert-Butyl alcohol				
Methyl propyl ketone	413	CH <sub>3</sub> COCH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	107-87-9	200	700	250	875	
1-Methyl-2-pyrrolidone	414	CH <sub>3</sub> N(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> CO	872-50-4	25	100	—	—	[06]
Methyl silicate	415	(CH <sub>3</sub> O) <sub>2</sub> Si	681-84-5	1	6	5	30	
alpha-Methyl styrene	416	C <sub>6</sub> H <sub>5</sub> C(CH <sub>3</sub> )=CH <sub>2</sub>	98-83-9	50	240	100	480	
Methylstyrenes	417	CH <sub>2</sub> =CHCO <sub>2</sub> H <sub>2</sub> CH <sub>3</sub>	25013-15-4	see Vinyl toluenes, all isomers				
N-Methyl-N-(2,4,6-tetra)toluene	418	(NO <sub>2</sub> ) <sub>2</sub> -C <sub>6</sub> H <sub>3</sub> N(NO <sub>2</sub> )CH <sub>3</sub>	479-45-8	see Tetryl				
Mevinphos	419	C <sub>7</sub> H <sub>13</sub> PO <sub>6</sub>	7786-34-7	0,01	0,1	0,03	0,3	Sk
Mica								
inhalable particulate	420	—	12001-26-2	—	10	—	—	
respirable particulate	421	—	—	—	1	—	—	

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Molybdenum compounds [as Mo]				—	5	—	10	
	422	Mo	7439-98-7 (metal)	—	10	—	20	
	423			0,3	1	—	—	Sk
Monochloroacetic acid	425	C <sub>2</sub> ClH <sub>3</sub> CO <sub>2</sub> H	79-11-8	20	70	30	105	Sk
Morpholine	426	C <sub>4</sub> H <sub>8</sub> NO	110-91-8	—	3	—	6	
Naled	187	C <sub>4</sub> H <sub>8</sub> Br <sub>2</sub> Cl <sub>2</sub> O <sub>4</sub> P	300-76-5	10	50	15	75	
Naphthalene	427	C <sub>10</sub> H <sub>8</sub>	91-20-3	see *Isocyanates				
1,5-Naphthalene diisocyanate	428	C <sub>10</sub> H <sub>8</sub> (NCO) <sub>2</sub>	3173-72-6	—	0,5	—	—	
*Nickel	429	Ni	7440-02-0 (metal)	—	—	—	—	
Nickel carbonyl [as Ni]	430	Ni(CO) <sub>4</sub>	13463-39-3	—	—	0,1	0,24	
Nickel, organic compounds [as Ni]	431	Ni	—	—	1	—	3	
*Nickel, inorganic compounds [as Ni]								
	432	Ni	—	—	0,1	—	—	
	433		—	—	0,5	—	—	[06]
Nickel subsulfide	433A		12035-72-2	—	0,1	—	—	[06]
Nicotine	434	C <sub>10</sub> H <sub>11</sub> N <sub>2</sub>	54-11-5	—	0,5	—	1,5	Sk
Nitrapyrin	146	C <sub>10</sub> C <sub>6</sub> H <sub>4</sub> NC <sub>2</sub> Cl <sub>2</sub>	1929-62-4	—	10	—	20	
Nitric acid	436	HNO <sub>3</sub>	7697-37-2	2	5	4	10	
Nitric oxide	437	NO	10102-43-9	25	30	35	45	
4-Nitroaniline	438	NO <sub>2</sub> C <sub>6</sub> H <sub>4</sub> NH <sub>2</sub>	100-01-6	—	6	—	—	Sk
Nitrobenzene	439	C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	98-95-3	1	5	2	10	Sk
Nitroethane	440	C <sub>2</sub> H <sub>5</sub> NO <sub>2</sub>	79-24-3	100	310	—	—	
Nitrogen dioxide	441	NO <sub>2</sub>	10102-44-0	3	5	5	9	
Nitrogen	437	NO	10102-43-9	see Nitric oxide monoxide				
Nitrogen trifluoride	442	NF <sub>3</sub>	7783-54-2	10	30	15	45	
Nitroglycerine [NG]	309	CH <sub>3</sub> NO <sub>3</sub> CHNO <sub>2</sub> CH <sub>2</sub> NO <sub>3</sub>	55-63-0	0,05	0,5	0,2	2	Sk [06]
Nitromethane	443	CH <sub>3</sub> NO <sub>2</sub>	75-52-5	20	50	—	—	[06]
1-Nitropropane	444	C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	108-03-2	25	90	—	—	
*2-Nitropropane	445	(CH <sub>3</sub> ) <sub>2</sub> CH(NO <sub>2</sub> )	79-46-9	5	18	—	—	
Nitrotoluene, all isomers	446	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> NO <sub>2</sub>	88-72-2	2	12	10	60	Sk [06]
Nitrous oxide	447	N <sub>2</sub> O	10024-97-2	50	90	—	—	[06]
Octachloronaphthalene	448	C <sub>10</sub> Cl <sub>8</sub>	2234-13-1	—	0,1	—	0,3	Sk
n-Octane	449	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>6</sub> CH <sub>3</sub>	111-65-9	300	1450	375	1800	
Oil mist, mineral	450	—	—	—	1	—	10	[06]
Orthophosphoric acid	451	H <sub>3</sub> PO <sub>4</sub>	7664-38-2	see Phosphoric acid				
Osmium tetroxide [as Os]	452	OsO <sub>4</sub>	20816-12-0	0,0002	0,002	0,0006	0,006	
Oxalic acid	453	COOHCOOH 2H <sub>2</sub> O	144-62-7	—	1	—	2	
Oxalonitrile	161	(CN) <sub>2</sub>	460-19-5	see Cyanogen				
Oxygen	—	O <sub>2</sub>	7782-44-7	Not less than 19%				
2,2'-Oxydiethanol	213	(CH <sub>2</sub> CH <sub>2</sub> OH) <sub>2</sub> O	111-46-6	see Diethylene glycol				
Ozone	454	O <sub>3</sub>	10028-15-6	—	—	0,2	0,4	
Paraffin wax, fume	455	—	8002-74-2	—	2	—	6	
Paraquat dichloride respirable particulate	456	CH <sub>3</sub> (C <sub>6</sub> H <sub>4</sub> N) <sub>2</sub> CH <sub>2</sub> Cl	1910-42-5	—	0,1	—	—	
Parathion	457	(C <sub>2</sub> H <sub>5</sub> O) <sub>2</sub> PSOC <sub>6</sub> H <sub>4</sub> NO <sub>2</sub>	56-38-2	—	0,1	—	0,3	Sk
Parathion-methyl	412	C <sub>8</sub> H <sub>11</sub> NO <sub>5</sub> PS	298-00-0	see Methyl parathion				

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Particles not otherwise classified [PNOC] inhalable particulate				—	—	—	—	
	458	—	—	—	10	—	—	[g] [06]
	459	—	—	—	3	—	—	
PCBs	124-125			see Chlorodiphenyls				
Pentacarbonyliron [as Fe]	349	Fe(CO) <sub>5</sub>	13463-40-6	see Iron pentacarbonyl				
Pentachlorophenol	460	C <sub>6</sub> Cl <sub>5</sub> OH	87-86-5	—	0,5	—	1,5	Sk
Pentaerythritol inhalable particulate				—	—	—	—	
	461	C(CH <sub>2</sub> OH) <sub>4</sub>	115-77-5	—	10	—	20	
	462	—	—	—	5	—	—	
Pentane, all isomers	463	C <sub>5</sub> H <sub>12</sub>	—	600	1800	750	2250	
Pentan-2-one	413	CH <sub>3</sub> COCH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	107-87-9	see Methyl propyl ketone				
Pentan-3-one	216	CH <sub>3</sub> CH <sub>2</sub> COCH <sub>2</sub> CH <sub>3</sub>	96-22-0	see Diethyl ketone				
Pentyl acetate	27	CH <sub>3</sub> COO(CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub>	528-63-7	see n-Amyl acetate				
Perchloroethylene	464	Cl <sub>2</sub> C <sub>2</sub> Cl <sub>2</sub>	127-18-4	25	170	100	678	[06]
Perchloryl fluoride	465	ClO <sub>3</sub> F	7616-94-8	3	14	6	28	
Phenacyl chloride	129	C <sub>6</sub> H <sub>5</sub> COCH <sub>2</sub> Cl	532-27-4	see 2-Chloroacetophenone				
Phenol	466	C <sub>6</sub> H <sub>5</sub> OH	108-95-2	5	19	10	38	Sk
p-Phenylenediamine	467	C <sub>6</sub> H <sub>4</sub> (NH <sub>2</sub> ) <sub>2</sub>	106-50-3	—	0,1	—	—	
Phenyl-2,3-epoxypropyl ether	468	C <sub>6</sub> H <sub>5</sub> OCH <sub>2</sub> CHCH <sub>3</sub>	122-60-1	1	6	—	—	
Phenyl ether, vapour	245	C <sub>6</sub> H <sub>5</sub> OCH <sub>3</sub>	101-64-6	1	7	—	—	
*Phenylethylenne	469	C <sub>6</sub> H <sub>5</sub> CH=CH <sub>2</sub>	100-42-5	see *Styrene, monomer				
Phenyldiazine	470	C <sub>6</sub> H <sub>5</sub> NHNH <sub>2</sub>	100-63-0	0,1	0,4	—	—	Sk [06]
2-Phenylpropene	416	C <sub>6</sub> H <sub>5</sub> C(CH <sub>3</sub> )=CH <sub>2</sub>	98-83-9	see alpha-Methyl styrene				
Phorato	471	C <sub>6</sub> H <sub>5</sub> O <sub>2</sub> PS <sub>3</sub>	298-02-2	—	0,05	—	0,2	Sk
Phosdrin	419	C <sub>7</sub> H <sub>13</sub> PO <sub>6</sub>	7786-34-7	see Mevinphos				
Phosgene	116	COCl <sub>2</sub>	75-44-5	0,02	0,06	0,06	0,25	
Phosphine	473	PH <sub>3</sub>	7803-51-2	—	—	0,3	0,4	
Phosphoric acid	451	H <sub>3</sub> PO <sub>4</sub>	7664-38-2	—	1	—	3	
Phosphorus, yellow	475	P <sub>2</sub>	7723-14-0	—	0,1	—	0,3	
Phosphorus pentachloride	476	PCl <sub>5</sub>	10026-13-8	0,1	1	—	—	
Phosphorus pentasulphide	246	P <sub>2</sub> S <sub>8</sub> /P <sub>4</sub> S <sub>10</sub>	1314-60-3	—	1	—	3	
Phosphorus trichloride	477	PCl <sub>3</sub>	7719-12-2	0,2	1,5	0,5	3	
Phosphoryl trichloride	478	POCl <sub>3</sub>	10025-87-3	0,2	1,2	0,6	3,6	
Phthalic anhydride	479	C <sub>6</sub> H <sub>4</sub> (CO) <sub>2</sub> O	85-44-9	1	6	4	24	Sen
Pidoram	480	C <sub>6</sub> H <sub>5</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>2</sub>	1918-02-1	—	10	—	20	
Picric acid	481	(NO <sub>2</sub> ) <sub>3</sub> C <sub>6</sub> H <sub>2</sub> OH	88-89-1	—	0,1	—	0,3	
Piperazine dihydrochloride	482	C <sub>6</sub> H <sub>11</sub> N <sub>2</sub> ·2HCl	142-64-3	—	5	—	—	
Piperidine	483	C <sub>6</sub> H <sub>11</sub> N	110-89-4	1	3,5	—	—	Sk
Plaster of Paris inhalable particulate				—	10	—	—	
	484	(CaSO <sub>4</sub> ) <sub>2</sub> ·H <sub>2</sub> O	26499-65-0	—	5	—	—	
	485	—	—	—	5	—	—	
Platinum metal	486	Pt	7440-06-4	—	5	—	—	
Platinum mine dust respirable particulate	487	—	—	—	3	—	—	[06]
Platinum salts, soluble [as Pt]	488	—	—	—	0,002	—	—	Sen
Polychlorinated biphenyls [PCBs]	124-125	—	—	see Chlorodiphenyls				
Polyvinyl chloride [PVC] inhalable particulate	489	—		—	10	—	—	
	490	—	9002-86-2	—	5	—	—	

Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Portland cement inhalable particulate respirable particulate	491	—	65997-15-1	—	10	—	—	
	492	—		—	5	—	—	
Potassium cyanide	336	KCN	151-50-8	see Hydrogen cyanide and cyanide salts				
Potassium hydroxide	493	KOH	1310-58-3	—	—	—	2	
Propane-1,2-diol	502-503	CH <sub>3</sub> CHOHCH <sub>2</sub> OH	57-55-6	see Propylene glycol				
n-Propanol	494	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> OH	71-23-8	200	500	250	625	Sk
Propan-1-ol	494	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> OH	71-23-8	see n-Propanol				
Propan-2-ol	362	(CH <sub>3</sub> ) <sub>2</sub> CHOH	67-63-0	see Isopropyl alcohol				
Propane	495	CH <sub>3</sub> CH <sub>2</sub> CH <sub>3</sub>	74-98-6	1000	1800	—	—	
Propargyl alcohol	496	HC=CCH <sub>2</sub> OH	107-19-7	1	2	3	6	Sk
Propionic acid	497	CH <sub>3</sub> CH <sub>2</sub> COOH	79-09-4	10	30	15	45	
Propoxur	498	C <sub>11</sub> H <sub>12</sub> NO <sub>3</sub>	114-26-1	—	0,5	—	2	
Propranolol	499	C <sub>16</sub> H <sub>21</sub> NO <sub>2</sub>	525-66-6	—	2	—	6	
n-Propyl acetate	500	CH <sub>3</sub> COOC <sub>2</sub> H <sub>5</sub>	109-60-4	200	840	250	1050	
Propylene dinitrate	501	CH <sub>3</sub> CNO <sub>2</sub> OHCHNO <sub>2</sub> OH	6423-43-4	see Propylene glycol dinitrate				
Propylene glycol total (particulate & vapour) particulate	502	CH <sub>3</sub> CHOHCH <sub>2</sub> OH	57-55-6	150	470	—	—	
	503	—		—	10	—	—	
Propylene glycol dinitrate [PGDN]	501	CH <sub>3</sub> CNO <sub>2</sub> OHCHNO <sub>2</sub> OH	6423-43-4	0,05	0,3	0,2	1,2	Sk
Propylene glycol monomethyl ether	394	CH <sub>3</sub> CHOHCH <sub>2</sub> OCH <sub>3</sub>	107-98-2	100	370	150	550	Sk [06]
2-Propyn-1-ol	496	HC=CCH <sub>2</sub> OH	107-19-7	see Propargyl alcohol				
Pulverised fuel ash inhalable particulate respirable particulate	504	—	—	—	10	—	—	
	505	—	—	—	5	—	—	
Pyrethrins	506	—	8003-34-7	—	5	—	10	
Pyridine	507	C <sub>5</sub> H <sub>5</sub> N	110-86-1	5	15	10	30	
2-Pyridylamine	508	NH <sub>2</sub> C <sub>5</sub> H <sub>4</sub> N	502-29-0	0,5	2	2	8	
Pyrocatechol	117	Cr(H <sub>4</sub> OH) <sub>2</sub>	120-80-9	see Catechol				
Quartz, crystalline	522	SiO <sub>2</sub>	14808-60-7	see Silica—Crystalline				
Quinone	46	Cr <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	106-51-4	0,1	0,4	0,3	1,2	
ROX	168	C <sub>11</sub> H <sub>10</sub> N <sub>6</sub> O <sub>6</sub>	121-82-4	see Cyclonite				
Resorcinol	219	Cr(H <sub>4</sub> OH) <sub>2</sub>	108-46-3	10	45	20	90	
Rhodium (as Rh) metal fume & dust soluble salts	510	Rh	7440-16-6 (metal)	—	0,1	—	0,3	
	511	—		—	0,001	—	0,003	
Ronnel	293	(CH <sub>3</sub> O) <sub>2</sub> P(S)OC <sub>6</sub> H <sub>5</sub> Cl <sub>5</sub>	299-84-3	—	10	—	—	
Rosin core solder pyrolysis products [as formaldehyde]	512	—	—	—	0,1	—	0,3	Sen
Rotenone	175	C <sub>29</sub> H <sub>20</sub> O <sub>6</sub> I	83-79-4	—	5	—	10	
Rouge inhalable particulate respirable particulate	513	Fe <sub>2</sub> O <sub>3</sub>	1309-37-1	—	10	—	—	
	514	—		—	5	—	—	
*Rubber fume	515	—	—	—	0,6	—	—	
*Rubber process dust	516	—	—	—	6	—	—	
Selenium & compounds, except hydrogen selenide [as Se]	517	Se	7782-49-2	—	0,1	—	—	
Silane	518	SiH <sub>4</sub>	7803-62-5	see Silicon tetrahydride				
Silica, amorphous inhalable particulate respirable particulate	519	SiO <sub>2</sub>	7631-86-9	—	6	—	—	
	520	—		—	3	—	—	

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
* Silica, crystalline [respirable particulate]		SiO <sub>2</sub>	14808-60-7	—	—	—	—	
Cristobalite	521		14464-46-1	—	0,1	—	—	
Quartz	522		14808-60-7	—	0,1	—	—	
Tridymite	523		15468-32-3	—	0,1	—	—	
Tropill	524		1317-95-9	—	0,1	—	—	
Silica fume [respirable particulate]			69012-64-2	—	2	—	—	
Silica, fused [respirable particulate]	525	SiO <sub>2</sub>	60676-86-0	—	0,1	—	—	
Silicon				—	—	—	—	
inhalable particulate	526	Si	7440-21-3	—	10	—	—	
respirable particulate	527			—	5	—	—	
Silicon carbide				—	—	—	—	
inhalable particulate	528	SiC	409-21-2	—	10	—	—	
respirable particulate	529			—	5	—	—	
Silicon tetrahydride	518	SiH <sub>4</sub>	7803-62-5	0,5	0,7	1	1,5	
Silver	530	Ag	7440-22-4 (metal)	—	0,1	—	—	
Silver compounds [as Ag]	531	—	—	—	0,01	—	—	
Sodium azide	532	NaN <sub>3</sub>	26628-2-8	—	—	—	0,3	
Sodium cyanide	337	NaCN	143-33-9	see Hydrogen cyanide and cyanide salts				
Sodium 2,4-dichlorophenoxy ethyl sulphate	173	C <sub>8</sub> H <sub>7</sub> Cl <sub>2</sub> NaO <sub>4</sub> S	136-78-7	—	10	—	20	
Sodium fluoroacetate	533	CH <sub>3</sub> FCOONa	62-74-8	—	0,05	—	0,15	Sk
Sodium hydrogen sulphite	534	NaHSO <sub>3</sub>	7631-90-5	—	5	—	—	
Sodium hydroxide	535	NaOH	1310-73-2	—	—	—	C2	[06]
Sodium metabisulphite	250	Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>	7681-57-4	—	5	—	—	
Starch				—	—	—	—	
inhalable particulate	536	(C <sub>6</sub> H <sub>10</sub> O <sub>5</sub> )N	9005-25-8	—	10	—	—	
respirable particulate	537			—	5	—	—	
Stibine	538	SbH <sub>3</sub>	7803-52-3	0,1	0,5	0,3	1,5	
strychnine	539	C <sub>21</sub> H <sub>27</sub> N <sub>2</sub> O <sub>2</sub>	57-24-9	—	0,15	—	0,45	
*Styrene, monomer	469	C <sub>8</sub> H <sub>8</sub> CH=CH <sub>2</sub>	100-42-5	50	210	100	420	[06]
Subtilisins [Proteolytic enzymes as 100% pure crystalline enzyme]	540	—	1395-21-7 9014-01-1	—	—	—	C 0,00006	[06]
Sucrose	541	C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>	57-50-1	—	10	—	20	
Sulfotep	542	[(CH <sub>3</sub> CH <sub>2</sub> O) <sub>2</sub> PS] <sub>2</sub> O	3689-24-5	—	0,2	—	—	Sk
Sulphur dioxide	543	SO <sub>2</sub>	7446-99-5	2	5	5	13	
Sulphur hexafluoride	544	SF <sub>6</sub>	2551-62-4	1000	6000	1250	7500	
Sulphuric acid	545	H <sub>2</sub> SO <sub>4</sub>	7664-93-9	—	1	—	3	
Sulphur monochloride	254	S <sub>2</sub> Cl <sub>2</sub>	10025-67-9	—	—	1	6	
Sulphur pentafluoride	253	S <sub>2</sub> F <sub>10</sub>	5714-22-7	0,025	0,25	0,075	0,75	
Sulphur tetrafluoride	546	SF <sub>4</sub>	7783-60-0	0,1	0,4	0,3	1	
Sulphuryl difluoride	547	SO <sub>2</sub> F <sub>2</sub>	2699-79-8	5	20	10	40	
2,4,5-T	548	Cl <sub>3</sub> C <sub>6</sub> H <sub>4</sub> OCH <sub>2</sub> COOH	93-76-5	see 2,4,5-Trichlorophenoxyacetic acid				
*TDI	360C	CH <sub>2</sub> C <sub>6</sub> H <sub>4</sub> (NCO) <sub>2</sub>	584-84-9	see *isocyanates				
TEDP	542	[(CH <sub>3</sub> CH <sub>2</sub> O) <sub>2</sub> PS] <sub>2</sub> O	3689-24-5	see Sulfotep				
TEPP	549	[(CH <sub>3</sub> CH <sub>2</sub> O) <sub>2</sub> PO] <sub>2</sub> O	107-49-3	0,004	0,05	0,01	0,2	Sk
TNT	550	CH <sub>4</sub> C <sub>6</sub> H <sub>2</sub> (NO <sub>2</sub> ) <sub>3</sub>	118-96-7	see 2,4,6-Trinitrotoluene				
Talc				—	—	—	—	
inhalable particulate	551	Mg <sub>3</sub> Si <sub>4</sub> O <sub>10</sub> (OH) <sub>2</sub>	14807-96-6	—	10	—	—	
respirable particulate	552			—	1	—	—	

Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Tantalum metal and oxide dusts [as Ta]	553	Ta	7440-25-7 1314-61-0	—	5	—	10	
Tellurium & compounds, except hydrogen telluride [as Te]	554	Te	13494-80-9	—	0,1	—	—	
Terphenyls, all isomers	555	C <sub>18</sub> H <sub>14</sub>	26140-60-3	—	—	0,5	5	
1,1,2,2-Tetrabromomethane	556	CHBr <sub>2</sub> CHBr <sub>2</sub>	79-27-6	0,5	7	—	—	Sk
Tetrabromomethane	114	CBra <sub>4</sub>	558-13-4	see Carbon tetrabromide				
Tetracarbonyl nickel	430	Ni(CO) <sub>4</sub>	13463-39-3	see Nickel carbonyl				
1,1,1,2-Tetrachloro- 1,2-difluoroethane	557	CCl <sub>2</sub> FCCl <sub>2</sub> F	76-12-0	100	834	100	834	
1,1,1,2-Tetrachloro- 2,2-difluoroethane	558	CCl <sub>2</sub> CClF <sub>2</sub>	76-11-9	100	834	100	834	
Tetrachloroethylene	464	Cl <sub>2</sub> C=CCl <sub>2</sub>	127-18-4	see Perchloroethylene				
Tetrachloromethane	115	CCl <sub>4</sub>	56-29-5	see Carbon tetrachloride				
Tetrachloronaphthalenes, all isomers	559	C <sub>10</sub> H <sub>4</sub> Cl <sub>4</sub>	1335-88-2	—	2	—	4	
Tetraethyl dithiopyrophosphate	542	(CH <sub>3</sub> CH <sub>2</sub> O) <sub>2</sub> PSi <sub>2</sub> O	3689-24-5	see Sulfotep				
Tetraethyl orthosilicate	292	Si[OC <sub>2</sub> H <sub>5</sub> ] <sub>4</sub>	78-10-4	see Ethyl silicate				
Tetraethyl pyrophosphate	549	(CH <sub>3</sub> CH <sub>2</sub> O) <sub>3</sub> PO <sub>2</sub> O	107-49-3	see TEPP				
Tetrafluorodichloroethane	158	CClF <sub>3</sub> CClF <sub>2</sub>	76-14-2	see 1,2-Dichlorotetrafluoroethane				
1,1,1,2-Tetrafluoroethane [HFC 134a]	560	CF <sub>3</sub> CH <sub>2</sub> F	811-97-2	1000	4200	—	—	
Tetrahydrofuran	561	C <sub>4</sub> H <sub>8</sub> O	109-99-9	50	148	100	295	Sk [06]
Tetramethyl orthosilicate	415	(CH <sub>3</sub> O) <sub>4</sub> Si	681-84-5	see Methyl silicate				
Tetramethyl succonitrile	562	C <sub>8</sub> H <sub>12</sub> N <sub>2</sub>	3333-52-6	0,5	3	2	3	Sk
Tetrasodium pyrophosphate	563	Na <sub>4</sub> P <sub>2</sub> O <sub>7</sub>	7722-88-5	—	5	—	—	
Tetryl	418	(NO <sub>2</sub> ) <sub>3</sub> C <sub>6</sub> H <sub>3</sub> N(NO <sub>2</sub> )CH <sub>3</sub>	479-45-8	—	1,5	—	3	
Thallium, soluble compounds [as Tl <sup>+</sup> ]	564	Tl	—	—	0,1	—	—	Sk
4,4'-Thiobis(6-tert-butyl-m-cresol)	256	CH <sub>3</sub> (OH)C <sub>6</sub> H <sub>3</sub> C(CH <sub>3</sub> ) <sub>3</sub> S	96-69-5	—	10	—	20	
Thioglycolic acid	384	HSC <sub>2</sub> HCOOH	68-11-1	1	5	—	—	
Thionyl chloride	565	SOCl <sub>2</sub>	7719-09-7	—	—	C1	C5	[06]
Thiram	566	(CH <sub>3</sub> ) <sub>2</sub> NCS <sub>2</sub> CS <sub>2</sub> N(CH <sub>3</sub> ) <sub>2</sub>	137-26-8	—	1	—	—	[06]
Tin compounds, inorganic except Sn <sup>II,IV</sup> [as Sn <sup>+</sup> ]	567	—	—	—	2	—	4	
Tin compounds, organic except cyhexatin [as Sn <sup>+</sup> ]	568	—	—	—	0,1	—	0,2	Sk
Titanium dioxide inhalable particulate respirable particulate	569	TiO <sub>2</sub>	13463-67-7	—	10	—	—	
Toluene	570	—		—	5	—	—	
*2,4-Toluene diisocyanate [TDI]	360C	CH <sub>2</sub> C <sub>6</sub> H <sub>3</sub> (NCO) <sub>2</sub>	584-84-9	see Isocyanates				
p-Toluenesulphonyl chloride	572	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> SO <sub>2</sub> Cl	98-59-9	—	—	—	5	
Tribromomethane	71	CHBr <sub>3</sub>	75-25-2	see Bromoform				
Tributyl phosphate, all isomers	573	(C <sub>4</sub> H <sub>9</sub> PO <sub>4</sub> ) <sub>3</sub>	126-73-8	0,2	—	—	—	[06]
Tricarbonyl(eta-cyclopenta dienyl) manganese	380	C <sub>5</sub> H <sub>5</sub> Mn(CO) <sub>3</sub>	12079-65-1	see Manganese cyclopentadienyl tricarbonyl				
Tricarbonyl (methylcyclopentatricarbonyl dienyl)	406	CH <sub>3</sub> C <sub>5</sub> H <sub>4</sub> Mn(CO) <sub>3</sub>	12108-13-3	see Methylcyclopentadienyl manganese manganese				
Trichloroacetic acid	574	CCl <sub>3</sub> COOH	76-03-9	1	5	—	—	
1,2,4-Trichlorobenzene	575	C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub>	120-82-1	2	16	5	40	[06]

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Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
1,1,1-Trichlorobis 2,2-bis(p-chlorophenyl)ethane	171	(C <sub>6</sub> H <sub>4</sub> Cl) <sub>2</sub> CHCCl <sub>3</sub>	50-29-3			see DDT		
*1,1,1-Trichloroethane	401	CH <sub>3</sub> CCl <sub>3</sub>	71-55-6			see *Methyl chloroform		
1,1,2-Trichloroethane	576	CHCl <sub>2</sub> CH <sub>2</sub> Cl	79-00-5	10	45	20	90	Sk
*Trichloroethylene	577	CCl <sub>2</sub> =CHCl	79-01-6	50	268	100	535	Sk [06]
Trichlorofluoromethane	299	CCl <sub>3</sub> FO	75-69-4	100	5600	1250	7000	
Trichloromethane	139	CHCl <sub>3</sub>	67-66-3			see Chloroform		
Trichloronitromethane	143	CCl <sub>3</sub> NO <sub>2</sub>	76-06-2			see Chloropicrin		
2,4,5-Trichlorophenoxyacetic acid	548	Cl <sub>3</sub> C <sub>6</sub> H <sub>4</sub> OCH <sub>2</sub> COOH	93-76-5	—	10	—	20	
1,2,3-Trichloropropane	578	CH <sub>2</sub> ClCHClCH <sub>2</sub> Cl	96-18-4	10	60	—	—	Sk [06]
1,1,2-Trichlorotrifluoroethane	579	CCl <sub>2</sub> FCClF <sub>2</sub>	76-13-1	1000	7600	1250	9500	
Tri-o-cresyl phosphate	580	(CH <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O) <sub>3</sub> P=O	78-30-8	—	0.1	—	0.3	
Tricyclohexyltin hydroxide	169	(C <sub>6</sub> H <sub>5</sub> ) <sub>3</sub> SnOH	13121-70-5			see Cyhexatin		
Tridymite	523	SiO <sub>2</sub>	14808-60-7			see Silica—Crystalline		
Triethylamine	581	(C <sub>2</sub> H <sub>5</sub> ) <sub>3</sub> N	121-44-8	2	8	3	12	[06]
Trifluorobromomethane	73	CF <sub>3</sub> Br	75-63-8	1000	6100	1200	7300	
Trimanganese tetroxide	381	Mn <sub>3</sub> O <sub>4</sub>	1317-35-7			see Manganese tetroxide		
Trimellitic anhydride	45	C <sub>6</sub> H <sub>4</sub> O <sub>5</sub>	552-30-7	—	0.04	—	—	Sen
Trimethylamine	584	(CH <sub>3</sub> ) <sub>3</sub> N	75-50-3	10	24	15	36	
Trimethylbenzene, all isomers or mixtures	585	C <sub>6</sub> H <sub>3</sub> (CH <sub>3</sub> ) <sub>3</sub>	25551-13-7	25	123	—	—	
3,5,5-Trimethylcyclohex-2-enone	359	C <sub>9</sub> H <sub>14</sub> O	78-59-1			see Isophorone		
Trimethyl phosphite	586	(CH <sub>3</sub> O) <sub>3</sub> P	121-45-9	2	10	—	—	
2,4,6-Triintropheol	481	(NO <sub>2</sub> ) <sub>2</sub> C <sub>6</sub> H <sub>3</sub> OH	86-69-1			see Picric acid		
2,4,6-Triintrotoluene	550	CH <sub>3</sub> C <sub>6</sub> H <sub>3</sub> (NO <sub>2</sub> ) <sub>3</sub>	118-96-7	—	0.5	—	—	Sk
Triphenyl phosphate	587	(C <sub>6</sub> H <sub>5</sub> O) <sub>3</sub> PO <sub>4</sub>	115-86-6	—	3	—	6	
Tripoli	524	SiO <sub>2</sub>	14808-60-7			see Silica—Crystalline		
Tri-o-tolyl phosphate	580	(CH <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O) <sub>3</sub> P=O	78-30-8			see Tri-o-cresyl phosphate		
Tungsten & compounds [as W]								
soluble	588	—	7440-33-7 (metal)	—	1	—	3	
insoluble	589	—	—	—	5	—	10	
Turpentine	590	C <sub>10</sub> H <sub>16</sub> (approx)	8006-64-2	100	560	150	840	
Uranium (natural). Soluble and insoluble compounds [as U]	591	—	7440-61-1 (metal)	—	0.2	—	0.6	[06]
Vanadium pentoxide								
inhalable particulate	592	V <sub>2</sub> O <sub>5</sub>	1314-62-1	—	0.5	—	—	
fume & respirable particulate	593	—	—	—	0.05	—	—	
Vegetable oil mist	593A	—	—	—	10	—	—	[06]
Vinyl acetate	594	CH <sub>3</sub> -CH <sub>2</sub> COOCCH <sub>3</sub>	108-05-4	10	30	20	60	
*Vinyl benzene	469	C <sub>6</sub> H <sub>5</sub> CH=CH <sub>2</sub>	100-42-5			see *Styrene, monomer		
Vinyl bromide	70	CH <sub>2</sub> -CHBr	593-60-2	5	20	—	—	
*Vinyl chloride	138	H <sub>2</sub> C=CHCl	75-0-4	3	—	—	—	
4-Vinyl cyclohexene dioxide	265	C <sub>8</sub> H <sub>12</sub> O <sub>2</sub>	106-87-6	10	60	—	—	

Substance	Pollutant Code	Formula	CAS Numbers	OEL		OEL-STEL/OEL-C		Notes
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Vinylidene chloride	199	CH <sub>2</sub> =CCl <sub>2</sub>	75-35-4	5	20	—	—	[06]
Vinyl toluenes, all isomers	417	CH <sub>2</sub> =CHC <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>	25013-15-4	50	240	100	480	
Warfarin	597	C <sub>19</sub> H <sub>16</sub> O <sub>4</sub>	81-81-2	—	0,1	—	0,3	
Welding fumes	598	—	—	—	5	—	—	Note [h]
White spirit [Stoddard Solvent]	599	—	8052-41-3	100	575	125	720	
Wood dust								
Hard wood	600	—	—	—	1	—	—	Sen [06]
Soft wood	601	—	—	—	5	—	10	
Xylene, <i>o</i> -, <i>m</i> -, <i>p</i> - or mixed isomers	602	C <sub>8</sub> H <sub>10</sub> (CH <sub>3</sub> ) <sub>2</sub>	1330-20-7	50	218	100	435	Sk [06]
Xylylidine, all isomers	21	(CH <sub>3</sub> ) <sub>2</sub> C <sub>6</sub> H <sub>3</sub> NH <sub>2</sub>	1300-73-8	0,5	2,5	10	50	Sk [06]
Yttrium	604	Y	7440-65-5	—	1	—	3	
Zinc chloride, fume	605	ZnCl <sub>2</sub>	7646-85-7	—	1	—	2	
Zinc stearate	606-607	Zn(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>	557-05-1	see Zinc stearate				
Zinc oxide, fume	606	ZnO	1314-13-2	—	5	—	10	
Zinc stearate								
Inhalable particulate	607	Zn(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>	557-06-1	—	10	—	20	
respirable particulate	608	Zn(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>		—	5	—	—	
Zirconium compounds [as Zr]	609	Zr	7440-67-7	—	5	—	10	

**NOTES**

- (a) The concentration of “respirable particulate” shall be determined from the fraction passing a size selector with an efficiency that will allow:
  - (i). 100% particles of 0 µm aerodynamic diameter
  - (ii). 50% particles of 4 µm aerodynamic diameter
  - (iii). 30% particles of 5 µm aerodynamic diameter
  - (iv). 1% particles of 10 µm aerodynamic diameter
- (b) Exposure to a substance with an OEL demarcated with an asterix must be kept as far below the OEL as is *reasonably practicable*.
- (c) The OEL for Aluminium does not include exposure to aluminium coated with mineral oil, or to fume arising from aluminium welding processes.
- (d) The 8 hour OEL for cotton dust is based on static air sampling rather than personal sampling.
- (e) Explosion hazard
- (f) Simple asphyxiant. See also Note (e) for Flammable gas.
- (g) Ensure that due regard is given to crystalline silica content of the dust.
- (h) The OEL for welding fume is without prejudice to any occupational exposure limits for individual components in the fume. Some welding processes generate fume that contains components, which have specific OELs, these limits should be applied to control exposure if these substances are present in the fume.
- (i) For practical reasons in monitoring OEL -STEL may be used as OEL C for use underground.

SEN Sensitiser.

Sk Danger of cutaneous absorption.

[06] Revised in 2006

[06\*] New addition in 2006

## 22.9 (2) (b) Occupational Exposure Limits for Physical Agents

### (i). Noise

- |                      |                 |
|----------------------|-----------------|
| (1) Noise Exposure   | : 85 dBLAeq, 8h |
| (2) Peak Sound Level | : 135 dB(A)     |

### (ii). Thermal stresses

- |                                       |        |
|---------------------------------------|--------|
| (1) Wet Bulb (°C)                     | : 32.5 |
| (2) Dry Bulb (°C)                     | : 37   |
| (3) Mean Radiant Temperature (°C)     | : 37   |
| (4) Equivalent Chill Temperature (°C) | : 4    |

## 22.9 (2) (c) Potable Water

### (i). Quality

POTABLE WATER QUALITY	PHYSICAL REQUIREMENTS		CHEMICAL REQUIREMENTS	CONDUCTIVITY REQUIREMENTS
Allowable Limit	Odour and Taste	Not to be – objectionable	pH 5.5 min 9.5 max	
Recommended Limit	Turbidity 1 (NTU)  Colour 20 mg/l of Platinum		pH 6.0 min 9.0 max	70 ms/m
Maximum Allowable Limit	Turbidity 5 (NTU)  Colour not specified			
Maximum Limit				300 ms/m

(NTU) = Expressed in Nephelometric turbidity units

(ii). Macro, Micro Determinants and Bacteriological Limits

DETERMINANTS	Formula	MAXIMUM ALLOWABLE LIMIT
<b>Macro Determinants</b>		mg/l
Total hardness	CaCO <sub>3</sub>	650
Magnesium	MG	100
Sodium	Na	400
Chloride	Cl	600
Sulphate	SO <sub>4</sub>	600
Nitrate + nitrite	N	10
Fluoride	F	1.5
Zinc	Zn	5.0
<b>Micro Determinants</b>		µg/l
Arsenic	As	300
Cadmium	Cd	20
Copper	Cu	1000
Cyanide	CN	300
Iron	Fe	1000
Lead	Pb	100
Manganese	Mn	1000
Mercury	Hg	10
Phenolic Compounds	Phenol	10
Selenium	Se	50
<b>Bacteriological Limits</b>		5 per 100ml NIL per 100ml Not specified
Total coliform bacteria count Faecal coliform bacteria count Standard plate count		

[Reg. 22.9(2) promulgated by GNR.904 of 2002]

(iii). Other Constituents

The water shall not contain any other constituents in concentrations, which may render it unsuitable for use as drinking water.

## 22.10

### 22.10.2 Water Storage and Pumping

(2)

(a) Competent person<sup>1</sup>

For purposes of regulation 10.2(2)(a) the competent person 1 [sic] [23] means a person who is registered as a professional engineer with the Engineering Council of South Africa and is competent in the design of underground dam walls, plugs and barricades.

[Reg. 22.10.2(2)(a) inserted by GNR.94 of 2008]

(b) Competent person<sup>2</sup>

For the purpose of regulation 10.2(2)(b) and (c) competent person means a person who-

- (a) is the holder of a Certificate of Competency for mechanical or electrical engineering issued by the Chief Inspector of Mines and has knowledge and experience in the design, construction and maintenance of dams and plugs; or
- (b) has been assessed competent against a qualification recognised by the MSA for this purpose.

[Reg. 22.10.2 promulgated by GNR.94 of 2008.]

**22.10.3 Draw points, tipping points, rock passes and box fronts**

- (1) (a) The competent person referred to in regulation 10.3 (1) (a) means a person who is registered with the Engineering Council of South Africa as a professional engineer or professional technologist or who has been assessed competent against a qualification recognised by the Mining Qualification Authority for this purpose.
- (2) (a) The competent person referred to in regulation 10.3 (2) (a) means a person who is the holder of a Certificate of Competency for Mechanical or Electrical Engineers (Mines and Works) issued by the Department or who has been assessed competent against a qualification recognised.

[Reg. 22.10.3 promulgated by GNR.94 of 2008.]

**22.10.3 Water storage and pumping**

- (1) The 'competent person' referred to in 10.3(2)(a) means a person who is registered as a professional engineer with the Engineering Council of South Africa.

[Reg. 22.10.3.1 added by GNR.1068 of 2010.]

- (2) The 'competent person' \* referred to in regulations 8.10.(2)(b) and (c) means a person who-
  - (a) is the holder of a Certificate of Competency for mechanical or electrical engineering issued by the Chief Inspector of Mines and has knowledge and experience in the design, construction and maintenance of dams and plugs; and
  - (b) has been assessed competent against a qualification recognised by the MSA for this purpose.

[Reg. 22.10.3.2 added by GNR1068 of 2010.]

#### **22.10.4 Draw points, tipping points, rock passes and box fronts**

- (1) (a) The 'competent person'<sup>1</sup> referred to in regulation 10.4(1)(a) means a person who-
  - (a) is registered with the Engineering Council of South Africa as a professional engineer or professional technologist; or
  - (b) has been assessed competent against a qualification recognised by the Mining Qualification Authority for this purpose.
- (2) (b) The 'competent person'<sup>2</sup> referred to in regulation 10.4(2)(b) [sic] means a person who:
  - (a) is the holder of a Certificate of Competency for Mechanical or Electrical Engineers (Mines and Works) issued by the Department; or
  - (b) who has been assessed competent against a qualification recognised.

[Reg. 22.10.4 inserted by GNR.1068 of 2010.]

### **22.14**

#### **22.14.1**

- (1) For the purpose of regulations 14.1(1), 14.1(5) and 14.1(7), a competent person means a person who-
  - (a) is in possession of a valid certificate of competency, recognised for this purpose by the Mining Qualifications Authority; or
  - (b) has been assessed competent against a unit standard, skills programme or qualification, recognised for this purpose by the Mining Qualifications Authority.

[Reg. 22.14.1(1) promulgated by GNR.959 of 2002, substituted by GNR.886 of 2003 and by GN.34 of 2007]

(7) .....

[Sub-reg. 22.14.1(7) promulgated by GNR.959 of 2002, substituted by GNR.886 of 2003 and deleted by GN.34 of 2007.]

- (8) For purposes of Regulation 14.1(8) competent person means a person who is at least in possession of either the Chamber of Mines Certificate in Rock Mechanics (Metalliferous Mines), or the Chamber of Mines Certificate in Rock Mechanics (Coal Mines), whichever is appropriate for the type of mine concerned.

[Reg. 22.14.1 promulgated by GNR.959 of 2002.]

**22.15**

(5)

- (a) The competent person referred to in regulation 5.1(1) must be in possession of the following-
- (i). ***Where the competent person performs the obligations underground:***
- (1) Certificate in Mine Environmental Control, issued by the Chamber of Mines of South Africa.
- (ii). ***Where the competent person performs the obligations on surface:***
- (1) Intermediate Certificate in Mine Environmental Control, issued by the Chamber of Mines of South Africa, and be certified as an Occupational Hygienist by the Southern African Institute for Occupational Hygiene; or
- (2) Certificate in Mine Environmental Control, issued by the Chamber of Mines of South Africa.

[Sub-reg. 22.15(5) promulgated by GNR.904 of 2002.]

(8)

- (a) The competent person referred to in regulation 8.2(6) must be in possession of the following:
- (i). An Electrical or Mechanical Certificate of Competency for Mines and Works issued by the Chief Inspector of Mines;
- (ii). A B degree in Electrical or Mechanical Engineering.

[Sub-reg. 22.15(8) inserted by GNR.583 of 2004. The regulations shall not be applicable to underground endless rope haulage installations, monorail installations, chairlift installations, overhead cranes and crawls, railbound equipment used in shafts, winders and raises, lifting machines, stackers and reclaimers.]

(9)

- (a) The competent person referred to in regulation 9.2(3) must be in possession of the following-
- (i). ***Where the competent person performs the obligations underground:***
- (1) Certificate in Mine Environmental Control, issued by the Chamber of Mines of South Africa.
- (ii). ***Where the competent person performs the obligations on surface:***

- (1) Intermediate Certificate in Mine Environmental Control, issued by the Chamber of Mines of South Africa, and be certified as an Occupational Hygienist by the Southern African Institute for Occupational Hygiene;
- (2) Certificate in Mine Environmental Control, issued by the Chamber of Mines of South Africa.

[Sub-reg. 22.15(9) promulgated by GNR.904 of 2002]

(11)

- (a) '**Competent person**' for purposes of sub-regulation 11.4(3) means:
  - (i). A person registered with the Health Professions Council in any of the following three categories:
    - (a) as an ear, nose and throat specialist;
    - (b) in speech therapy and audiology; or
    - (c) as an occupational medical practitioner; or
  - (ii). A person qualified in audiometric techniques from an institution registered with the relevant Education and Training Quality Assurer (ETQA) registered in terms of the South African Qualifications Authority Act (Act 58 of 1995).
- (b) '**Competent person**' for purposes of sub-regulations 11.4(7) and 11.4(8) means:
  - (i). A person registered as an audiologist with the Health Professions Council.

[Chapter 22.15(11) promulgated by GNR.786 of 2002.]

(16)

- (a) The competent person referred to in regulations 16.1(1) must be in possession of the following:
  - (i). Where the competent person performs the obligations underground:
    - (1) Certificate in Mine Environmental Control, issued by the Chamber of Mines of South Africa.
  - (ii). Where the competent person performs the obligations on surface:
    - (1) Intermediate Certificate in Mine Environmental Control, issued by the Chamber of Mines of South Africa, and be certified as an Occupational Hygienist by the Southern African Institute for Occupational Hygiene;
    - (2) Certificate in Mine Environmental Control, issued by the Chamber of Mines of South Africa.

[Subreg. (16)(a) added by GN R904 of 2 July 2002.]

(16)

- (a) For purposes of Regulation 16.5(1)(a), competent person means a person who-
- (i). has passed a course of training approved for this purpose by the Chief Inspector of Mines;
- OR
- (ii). has been assessed and found competent against applicable unit standards, skills programme and/or a qualification recognised for this purpose by the Mining Qualifications Authority (MQA).

[Reg. 22.15(16)(a) inserted by GNR.904 of 2002 and substituted by GN.86 of 2008]

## **TECHNICAL COMPETENCIES**

### **22.16 Electrical**

#### **22.16.3.1 Design of electrical apparatuses**

The competent person referred to in regulation 3.1(1), means a person who is registered with the Engineering Council of South Africa as a professional engineer and who by virtue of his or her knowledge and experience is competent to design, select and approve electrical systems and installations.

[Reg. 22.16.3.1 added by GNR.330 of 24 April 2015.]

#### **22.16.3.2 Control of electrical apparatuses**

The competent person referred to in regulations 3.1(2), 3.3.2 means:

- (a) where the only power supply to the mine is a single phase power supply at a domestic voltage, this person is a person who:
  - (i). is in possession of an installation electrician certificate issued by the Department of Labour under the Manpower Training Act or who has been assessed competent against a skills programme or qualification recognised for this purpose by the Mining Qualifications Authority; and
  - (ii). has at least two years post qualification experience in the construction, installation, operation and maintenance of the type of electrical apparatus and reticulation systems on which he or she is required to work at the mine.
- (b) notwithstanding 1.1, where a multi-phase power supply of low voltage is supplied to a mine (even if single phase power is used at some parts of the mine) this person is a person who:
  - (i). is in possession of an installation electrician certificate issued by the Department of Labour under the Manpower Training Act or who has been assessed competent against a skills programme or qualification recognised for this purpose by the Mining Qualifications Authority; and

- (ii). has at least two years post qualification experience in the construction, installation, operation and maintenance of the type of electrical apparatus and reticulation systems on which he is required to work at the mine.
- (c) notwithstanding 1.1 and 1.2, where power supplies above low voltage are supplied to a mine (even if domestic or low voltage power is used at some parts of the mine), this person is a person who:
  - (i). is the holder of a Certificate of Competency for Mechanical or Electrical engineer[ing] issued by the Department of Mineral Resources and who by virtue of his knowledge and experience is competent in the construction and installation of electrical apparatuses and reticulation systems; or
  - (ii). has been assessed competent against a qualification recognised for this purpose by the Mining Qualifications Authority.

[Reg. 22.16.3.2 added by GNR.330 of 24 April 2015.]

### **22.16.3 Installation, repairs and maintenance of electrical apparatuses**

The competent person referred to in regulation 3.1.3 means a person who has:

Qualifications under the Skills Development Act, Act 97 of 1998 as:

- (a) an electrician or millwright; or
- (b) a competency or competencies recognised by the Mining Qualification Authority for these purposes and has at least two years post qualification experience in the construction, installation, operation and maintenance of the type of electrical apparatus and reticulation systems on which he or she is required to work at the mine.

[Reg. 22.16.3 added by GNR.330 of 24 April 2015.]

### **22.16.4 Energise, de-energise or isolation of electrical apparatuses**

The competent person referred to in regulation 3.3.3 means a person or persons, who collectively hold the following:

Qualifications under the Skills Development Act, Act 97 of 1998 as:

- (a) an electrician or millwright; or
- (b) a competency or competencies recognised by the Mining Qualification Authority for these purposes and has at least two years post qualification experience in the construction, installation, operation and maintenance of the type of electrical apparatus and reticulation systems on which he or she is required to work on at the mine.
- (c) has attended a skills programme recognised by the Mining Qualifications Authority for this purpose; and
- (d) has two years' experience in doing switching on medium voltage apparatuses.

[Reg. 22.16 added by GNR.330 of 24 April 2015.]

## CHAPTER 23

### REPORTING OF ACCIDENTS AND DANGEROUS OCCURRENCES

[Chapter 23 promulgated by GNR.134 of 2001 and Heading corrected by GNR.787 of 2002.]

#### Accidents to be reported

**23.1** The *employer* must report to the Principal Inspector of Mines in the manner prescribed in this chapter any accident at the mine that results in:

- (a) the death of any *employee*;
- (b) an injury, to any *employee*, likely to be fatal;
- (c) unconsciousness, incapacitation from heatstroke or heat exhaustion, oxygen deficiency, the inhalation of fumes or poisonous gas, or electric shock or electric burn accidents of or by any *employee* and which is not reportable in terms of paragraph (d);
- (d) an injury which either incapacitates the injured *employee* from performing that employee's normal or a similar occupation for a period totaling 14 days or more, or which causes the injured *employee* to suffer the loss of a joint, or a part of a joint, or sustain a permanent disability;
- (e) an injury, other than injuries referred to in paragraph (d), which incapacitates the injured *employee* from performing that employee's normal or a similar occupation on the next calendar day.

#### 23.2

- (1) An accident referred to in paragraph (a), (b) or (c) of regulation 23.1 must be reported immediately by the quickest means available and must be confirmed without delay on Forms SAMRASS 1 and 2 prescribed in Chapter 21.
- (2) An accident referred to in paragraph (d) of regulation 23.1 must, after the accident becomes reportable, be reported within three days on Forms SAMRASS 1 and 2 prescribed in Chapter 21.
- (3) The Form SAMRASS 9 must be submitted on a monthly basis for all persons not having returned to work at the time of submitting SAMRASS 2 on a monthly basis.
- (4) An accident referred to in paragraph (e) of regulation 23.1 must be reported without delay on a monthly basis, on Form SAMRASS 4 prescribed in Chapter 21.

### 23.3

- (1) Where the death of an *employee*, referred to in regulation 23.1 (a) is related to a rockburst or fall of ground, the duly completed Form SAMRASS 3, prescribed in Chapter 21, for such rockburst or fall of ground must be forwarded by the *employer* to the Principal Inspector of Mines within 14 days of such death.
- (2) When an injury results in the death of the injured *employee* after the report in terms of regulation 23.1(b), (c), (d) or (e) has been given or when a slight injury, which was not reportable, results in the death of the injured *employee*, or when general sepsis or tetanus develops as a result of an injury, the *employer* must immediately report it to the Principal Inspector of Mines and without delay submit amended Form SAMRASS 1 prescribed in Chapter 21.
- (3) Where the injury of a person referred to in regulation 23(1) or a dangerous occurrence referred to in regulation 23.4(o), is related to the use of explosives, in addition to Form SAMRASS 1, the duly completed Form SAMRASS 5, prescribed in Chapter 21, must be forwarded by the *employer* to the Principal Inspector of Mines within 14 days of such occurrence.
- (4) Where the injury of a person referred to in regulation 23(1) or a dangerous occurrence referred to in regulation 23.4(f) is related to fires, in addition to Form SAMRASS 1, the duly completed Form SAMRASS 6, prescribed in Chapter 21, must be forwarded by the *employer* to the Principal Inspector of Mines within 14 days of such occurrence.
- (5) Where the injury of a person referred to in regulation 23(1) or a dangerous occurrence referred to in regulation 23.4(b) is related to a subsidence in a coal mine, in addition to Form SAMRASS 1, the duly completed Form SAMRASS 7, prescribed in Chapter 21, must be forwarded by the *employer* to the Principal Inspector of Mines within 14 days of such occurrence.
- (6) Where the injury of a person referred to in regulation 23(1) is related to heat stroke or heat exhaustion, in addition to Form SAMRASS 1, the duly completed Form SAMRASS 8, prescribed in Chapter 21, must be forwarded by the *employer* to the Principal Inspector of Mines within 14 days of such occurrence.

#### Dangerous occurrences to be reported

- 23.4 The *employer* must report to the Principal Inspector of Mines in the manner prescribed in this Chapter any of the following dangerous occurrences at the mine-
- (a) Rockbursts and falls of ground  
An extensive rockburst or fall of ground causing the following damage underground-

- (i). At least 10 linear metres of working face has been severely damaged and choked and will require re-establishment and re-supporting, or be abandoned;
  - (ii). At least 25 m<sup>2</sup> of working area has been severely damaged and choked rendering support units ineffectual and will have to be re-established and re-supported or be abandoned;
  - (iii). At least 10 linear metres of gully has been restricted with rock clearly recently displaced from the hanging wall and gully sidewalls;
  - (iv). At least 10 linear metres continuous or 30 linear metres cumulative of access ways of tunnel or travelling way has been severely damaged and will require rehabilitation or be abandoned;
  - (v). At least 10 m<sup>2</sup> of roof or 5 m<sup>3</sup> of rock has been displaced from the roof of the mining cavity or excavation;
  - (vi). At least 10 m<sup>3</sup> of rock has been freshly displaced from pillars or tunnel sidewalls.
- (b) Caving  
Any unplanned or uncontrolled caving, side wall or slope failure or subsidence in the ground or workings, causing damage to the surface, which may pose a significant risk to the safety of persons at a mine.
- (c) Flow of water, broken rock, mud or slimes  
Any unplanned or uncontrolled flow of water, broken rock, mud or slimes at the mine which may pose a significant risk to the safety of persons.

[Para. (c) substituted by GNR.783 of 2004.]

- (d) Breakdown of main ventilation fan  
Breakdown of any main ventilation fan.
- (e) Power failure  
Any power failure occurring in the underground workings of a mine, which poses a significant risk to the *health*, or safety of persons at a mine.
- (f) Fires and explosions  
Any ignition or explosion of gas or dust, or any fire related to mining activities or any indication or recrudescence of fire or spontaneous combustion at or in a mine.
- (g) Flammable gas  
The presence of flammable gas exceeding one comma four parts per hundred by volume in the general atmosphere at a mine, or any portion of a mine:
  - (i). if such flammable gas is detected for the first time; or
  - (ii). the first time such flammable gas is again detected after not having been detected therein for a continuous period of three months.
- (h) Winding plants

- (i). Running out of control of winding-engine, winding drum or conveyance;
- (ii). Fracture or failure of any essential part of the winding-engine, fracture or failure of any safety device used in connection with the winding equipment;
- (iii). Fracture, failure or serious distortion of winding rope, fracture, failure or serious distortion of any connection between the winding rope and the drum or between the winding rope and the conveyance and any other load suspended from or attached to such rope; fracture or failure or serious distortion of any connection between conveyances or between a conveyance and any suspended or attached load, fracture of guide rope or its connections, fracture of balance or tail rope or its connections;

[Sub-para. (iii) corrected by GNR.787 of 2002. English text only]

- (iv). Fracture or failure of winding or balance sheave; fracture or failure of any essential part of the headgear or other sheave support;
  - (v). Jamming or accidental overturning of conveyance; conveyance or its load fouling shaft equipment; jamming of crosshead;
  - (vi). Derailing of conveyance;
  - (vii). Conveyance, bridle, frame or crosshead accidentally leaving guides;
  - (viii). Fracture or failure of the braking system or of any critical parts thereof;
  - (ix). Failure to activate when required of any safety catches and/or arresting devices or activation of any safety catches and/or arresting devices when not required;
  - (x). Failure to activate when required of any overwinding prevention device or activation of such device when not required;
  - (xi). Any overwind or over-run of the conveyance to an extent which may have endangered persons or may have caused damage to the winding equipment;
  - (xii). Failure of depth indicator.
- (i) Lifts and elevators
- (i). Fracture or failure of any essential part of the driving or operating machinery, fracture or failure of any safety device used in connection with lifts or elevators.
  - (ii). Fracture or distortion of the lift or elevator rope, fracture or failure of attachments of such rope.
  - (iii). Fracture or failure of any sheave or of the shaft or shaft bearing of such sheave.
  - (iv). Jamming of car or counterpoise.
  - (v). Fracture or failure of braking system or of any critical parts thereof.

- (vi). Failure to activate when required of any safety catches and/or arresting devices or activation of any safety catches and/or arresting devices when not required.
- (j) Objects falling down shafts
  - Any object falling down the shaft or any other incident which necessitates the inspection of the shaft.
- (k) Emergency or rescue procedures
  - (i). Any failure of breathing apparatus whilst deployed.
  - (ii). The use of emergency escape apparatus, procedures or rescue mechanisms, or the rescue from entrapment, associated with mining or related activities, of any *employee*.
- (l) Self propelled mobile machinery
  - Any self-propelled mobile machine running out of control which may pose significant risk to the safety of persons at a mine.
- (m) Boilers and pressure vessels
  - Fracture or failure of any part of a boiler or safety device of a boiler or pressure vessel which may have endangered persons.
- (n) Chairlifts
  - (i). Fracture or failure of any part or safety device of a chairlift installation which may have endangered persons or may have caused damage to such chairlift installation.
  - (ii). Fracture or failure of any essential part of the driving machinery.
  - (iii). Fracture, failure or serious distortion of any rope or chain forming part of a chairlift installation.
- (o) Explosives
  - (i). Any unauthorised or accidental ignition or detonation of explosives.
  - (ii). Any exposure of persons to blasting fumes which is not reportable in terms of regulation 23.1.
  - (iii). Any detonation of explosives which may pose a significant risk to the safety of persons.

**23.5** A dangerous occurrence referred to in regulation 23.4 must be reported immediately by the quickest means available and must be confirmed without delay on Form SAMRASS 1 prescribed in Chapter 21.

**23.6** Every *employer* must ensure that a system is in place whereby the *employer* is informed, as soon as is practicable after its occurrence, of any accident or dangerous occurrence, which is reportable in terms of this Chapter.

**23.7**

- (i). Every *employer* must keep and maintain a record in which the particulars of all accidents and dangerous occurrences, which are required to be reported in terms of this Chapter, must be recorded without delay.
- (ii). The record contemplated in Regulation 23.7(i) in respect of all accidents or dangerous occurrences must be kept and maintained for two years from the time that the accident or dangerous occurrence becomes reportable.

[Sub-para (ii) previously sub-para (iii), corrected by GNR.787 of 2002.]

# **Constitution of the Mine Health and Safety Council**

**Published under**

GN R1317 in GG 18352 of 10 October 1997

**as amended by**

GN R906 in GG 23585 of 2 July 2002

(as corrected by GN R1575 in GG 24168 of 13 December 2002)

Under section 97(3) of the Mine Health and Safety Act, 1996 (Act 29 of 1996), I, Penuell Mpapa Maduna, Minister of Minerals and Energy, after consulting the Mine Health and Safety Council, add to the said Act, the Schedule.

**P M MADUNA**  
**Minster of Minerals and Energy**

In this Constitution all references to sections are references to sections in this Act unless otherwise indicated.

## **1. Establishment of Council and committees**

- (1) The Council and the permanent committees of the Council, the Mining Regulation Advisory Committee, the Mining Occupational Health Advisory Committee and the Safety in Mines Research Advisory Committee are established by section 41(1) and (2) of this Act.
- (2) The Council may establish ad hoc committees and subcommittees for such periods as the Council may consider necessary, to achieve the object or perform the functions of the Council.
- (3) Every permanent or ad hoc committee may, subject to such conditions as the Council may determine, establish subcommittees, for such periods as the committee may consider necessary, to perform any function of that committee.

## **2. Legal status**

- (1) The Council is a body corporate.
- (2) All actions, suits or other proceedings at law, by or against any committee must be brought by or against the Council.
- (3) The Council may authorise any person or persons to act on behalf of the Council and to sign all such documents and to take all such steps as may be necessary in connection with any proceedings at law brought by or against the Council.

## **3. Object of Council**

The object of the Council is to advise the Minister on *health* and safety at mines.

## **4. Functions of Council**

The Council must-

- (a) advise the Minister on *health* and safety at mines including, but not limited to, any legislation on mine rehabilitation in so far as it concerns *health* and safety;
- (b) co-ordinate the activities of the committees;
- (c) consider the reports of the committees;
- (d) liaise with the Mining Qualifications Authority on matters relating to *health* and safety;
- (e) liaise with any other statutory bodies concerned with matters relating to *health* and safety;
- (f) promote a culture of *health* and safety in the mining industry;

- (g) at least once every two years arrange and co-ordinate a tripartite summit to review the state of *health* and safety at mines;
- (h) for each year consider an overall programme for relevant *health* and safety for approval as prescribed and deliver a copy to the Minister of Finance for consideration; and
- (i) perform every duty imposed upon the Council in terms of this Act.

## **5. Functions of permanent committees**

- (1) The Mining Regulation Advisory Committee must advise the Council on-
  - (a) proposed changes to legislation to improve *health* or safety at mines;
  - (b) proposals for changes to legislation made by any committee;
  - (c) guidelines for codes of practice; and
  - (d) standards approved by the South African Bureau of Standards.
- (2) The Mining Occupational Health Advisory Committee must advise the Council on-
  - (a) policy relating to *health*;
  - (b) standards, systems and procedures for assessing, avoiding, eliminating, controlling and minimising *health* risks;
  - (c) regulations on any aspect of *health*;
  - (d) *health* research; and
  - (e) collecting, processing and distributing *health* data in the mining industry.
- (3) The Safety in Mines Research Advisory Committee must advise the Council on-
  - (a) criteria for determining the funding of *health* and safety research;
  - (b) the need for research into *health* and safety at mines;
  - (c) research projects, including priorities of projects, cost, assessment, ratification and execution;
  - (d) communication and publication of research results; and
  - (e) the management of the cost of the overall programme.
- (4) The Safety in Mines Research Advisory Committee must prepare the programme for relevant *health* and safety research for the Council to consider. The programme must include-
  - (a) a review of *health* and safety performance in the different mining sectors;
  - (b) an evaluation of the research proposals made by the Council or any committee;
  - (c) the focus of *health* and safety research and priorities for the different sectors of mining; and
  - (d) an estimate of the cost of the programme.

## **6. Functions of other committees**

Other committees must perform the functions delegated or assigned to them in terms of item 7.

## **7. Delegation and assignment of functions**

- (1) The Council may delegate or assign any of the functions of the Council by or under this Act to any committee.
- (2) Permanent and ad hoc committees may delegate or assign any of their functions to any of their subcommittees.
- (3) A delegation or assignment under subitem (1) or (2)-
  - (a) must be in writing;
  - (b) is subject to such conditions and restrictions as determined by the Council, a permanent or an ad hoc committee, as the case may be; and
  - (c) does not prevent the performance of that function by the Council, a permanent or an ad hoc committee, as the case may be.

## **8. Composition of Council and committees**

- (1) The Council consists of-
  - (a) five members representing owners in the mining industry;
  - (b) five members representing employees in the mining industry;
  - (c) four members representing departments of State; and
  - (d) the *Chief Inspector*, who must chair the Council.
- (2) Every permanent committee consists of-
  - (a) five members representing owners in the mining industry;
  - (b) five members representing employees in the mining industry;
  - (c) four members representing departments of State; and
  - (d) an officer of the Mine Health and Safety Inspectorate who must chair the committee.
- (3) Every other committee consists of the number of members determined by the relevant establishing authority.
- (4) The parties are entitled to equal representation on other committees.

## **9. Nomination and appointment of members**

- (1) Members of the Council and permanent committees are nominated and appointed in accordance with the regulations and members of any other committee are nominated and appointed in accordance with this item.

- (2) Every party on the relevant establishing authority may nominate persons as members representing their party on any other committee.
- (3) The relevant establishing authority-
  - (a) must appoint the members; and
  - (b) may appoint one of the members as chairperson.
- (4) If the relevant establishing authority does not appoint a chairperson, the members of the committee may appoint a chairperson from among their number.
- (5) Members representing employees or owners on any other committee may hold office for such period as the relevant establishing authority may determine, which period may not exceed three years. A member whose period of office expires, may be reappointed.
- (6) If the office of a member of any other committee is vacated before the end of the period of office of such member, a person to replace such member must, subject to the provisions of this Constitution-
  - (a) be nominated by the party that was represented by the member; and
  - (b) be appointed by the relevant establishing authority for a period not exceeding the balance of the period of office of the member in whose place the person is appointed.
- (7) The appointment of any member of any other committee is subject to any condition that the relevant establishing authority determine.
- (8) The chairperson of the relevant establishing authority must in writing notify the members of their appointment.
- (9) If a member appointed in terms of this item does not accept such appointment, a person to replace such person must be appointed in accordance with this item.
- (10) Every party must appoint an alternate for each of its members on the Council, a permanent or ad hoc committee and must notify the chairperson of the Council or the relevant permanent or ad hoc committee, as the case may be, of such appointment.
- (11) The relevant establishing authority-
  - (a) may appoint alternates for members of subcommittees; and
  - (b) must notify-

- (i). the alternates of their appointment; and
- (ii). the members of their respective alternates.

## **10. Vacation of office**

- (1) A member vacates office-
  - (a) on expiry of the member's period of office;
  - (b) if such member-
    - (i). is absent from two consecutive meetings of the Council or committee for which such member is appointed without notifying the chairperson before the meeting that the member will be absent;
    - (ii). resigns as a member; or
    - (iii). is required to vacate office by the party or the organisation which that member represents;
  - (c) if such member was nominated by an organisation and that organisation no longer meets the criteria allowing it to nominate members; or
  - (d) if the Council or committee on which the member serves, is abolished.
- (2) If a member vacates office, the alternate appointed for such member ceases to hold office as alternate.

## **11. Functions of chairperson**

- (1) Every chairperson must with regard to the Council or committee which the person chairs-
  - (a) allow each party to appoint from among its members a person to act as convenor of such party for communication purposes. If a party does not appoint such convenor, the chairperson may appoint any member of that party as convenor of the party;
  - (b) cause meetings to be convened; and
  - (c) ensure the orderly conduct of meetings and that all resolutions are recorded.
- (2) If in the opinion of the chairperson the behaviour of any member is disruptive to the orderly conduct of the meeting, the chairperson may order that member to leave a meeting.
- (3) If the chairperson of the Council or a permanent committee is unable to attend a meeting, the chairperson may designate another officer of the Mine Health and Safety Inspectorate to chair the meeting.

## **12. Appointment and functions of secretary**

- (1) The Council must appoint a secretary for-
  - (a) the Council and every permanent and ad hoc committee; and
  - (b) any subcommittee if the establishing authority so requires.

[Sub-item (1) substituted by GNR.906 of 2002 (as corrected by GNR1575 of 2002).]

- (2) If a secretary is not appointed for a subcommittee, the members of that committee must keep a record of and report to the relevant establishing authority on their activities.
- (3) A secretary must, with regard to the Council or committee for which the secretary is appointed-
  - (a) prepare the agenda for every meeting;
  - (b) prepare the minutes of every meeting;
  - (c) record every resolution of such meeting and if so requested by a member, the views of that member;
  - (d) keep general records, records of members, minutes, documents and files of the Council or such committee; and
  - (e) serve every member with-
    - (i). a convening notice and the agenda of a meeting at least five clear days before the meeting or two clear days before an urgent meeting;
    - (ii). any reports or documentation to be considered at a meeting, a reasonable period before the meeting; and
    - (iii). the minutes of every meeting.

### **13. Rights and obligations of members**

- (1) Any member who is unable to attend a meeting of the Council or any committee-
  - (a) may designate any alternate of that member's party on the Council or that committee as the case may be, to represent the member at the meeting; and
  - (b) must before the meeting give notice of it to the chairperson.
- (2) An alternate designated under subitem 1 has the rights and obligations of the member whom that alternate represents.
- (3) Every member has the right to-
  - (a) be heard on any matter considered at the meeting;
  - (b) take part in the resolution of any matter before the meeting; and
  - (c) have their views, on any matter considered at the meeting, recorded in the minutes of the meeting and in any report or recommendation of the meeting.

### **14. Meetings**

- (1) The Council must meet at such intervals as required for the proper performance of the functions of the Council, but at least once every six months.

- (2) Every permanent and ad hoc committee must meet at such intervals as required for the proper performance of the functions of the committee, but at least once every three months.
- (3) Subcommittees must meet at such intervals as determined by their activities and the dates for the completion of their tasks.
- (4) An urgent meeting of the Council or any committee may be called by the chairperson at the written request of at least two members or when the chairperson deems it necessary.
- (5) The Council may direct any committee to call an urgent meeting to resolve any matter determined by the Council.
- (6) A permanent or ad hoc committee may direct any of its subcommittees to call an urgent meeting to resolve any matter determined by such committee.

## **15. Quorum**

- (1) Eight members form a quorum for any meeting of the Council or a permanent committee provided that at least two members of each party are present.
- (2) The quorum for any other committee must be determined by the relevant establishing authority.
- (3) Despite subitems (1) and (2), if the convenors of the parties in the Council or any committee so agree, a smaller number may constitute a quorum for an urgent meeting of the Council or that committee, as the case may be.
- (4) If a quorum is not present at a meeting, the meeting must be postponed to a date, time and place determined by the chairperson. The members present at the subsequent meeting form a quorum for that meeting.

## **16. Procedures at meetings**

- (1) Items may be added to the agenda of any meeting if the meeting so decides.
- (2) Any member who has a direct or personal financial interest in any matter before the meeting must, before the matter is discussed by the meeting, declare such interest to the meeting and the chairperson must determine whether such member may participate in the consideration of that matter.

- (3) If the designated chairperson is not present at a meeting the members may elect from among their number a chairperson for that meeting.

## **17. Resolution of meeting**

- (1) The Council or any committee must endeavour to reach consensus on any matter that requires resolution.
- (2) If consensus cannot be reached on any matter after sincere endeavours to do so, a decision of the majority of members present and voting at a meeting constitutes the resolution on that matter by the Council or any committee, as the case may be.
- (3) Any report or advice of the Council or any i which reflects a resolution that was not reached by consensus, must reflect-
  - (a) the different views of the members on the matter so resolved; and
  - (b) which members supported each view.
- (4) No resolution nor any act authorised by the Council or any committee is invalid merely because of a vacancy on the Council or that committee or because any person not entitled to sit as a member sat at such meeting at the time the resolution was taken or the act was authorised if a quorum was constituted by the rest of the members present at the meeting and entitled to sit as members at the meeting.
- (5) Despite subitems (1) to (3), if the members present and voting at a meeting reach consensus on the matter, the Council may resolve that any specific resolution of the Council may only be amended or revoked by a special majority of, or the consensus of the Council.

[Sub-item (5) added by GNR.906 of 2002 (as corrected by GNR1575 of 2002).]

## **18. Funds of Council**

- (1) The funds of the Council consist of-
  - (a) moneys appropriated by Parliament to perform the functions of the Council;
  - (b) other moneys received in terms of this Act;
  - (c) revenue obtained from investments;
  - (d) fees or royalties obtained from intellectual property of the Council;
  - (e) donations or contributions received from any person, body, government or administration;
  - (f) and any other money received from any other source.

- (2) Moneys appropriated by Parliament must be used for-
  - (a) the payment to members who are not in the full-time service of the State of such remuneration and allowances as the Minister may determine with the agreement of the Minister of Finance; and
  - (b) the payment for administrative functions of the Council and committees.
- (3) Moneys referred to in subitem (1)(b), (c), (d) or (f) may be-
  - (a) used as contemplated in this Act;
  - (b) invested with any bank registered as such under the Banks Act, 1990 (Act 94 of 1990), or invested in such other manner as may be determined by the Minister with the agreement of the Minister of Finance; and
  - (c) used to register or utilise any intellectual property of the Council.
- (4) Moneys referred to in subitem (1)(e) must be utilised in accordance with the conditions, if any, imposed by the donor or contributor of such moneys.
- (5) The chairperson of the Council must for each financial year submit a statement of estimated income and expenditure during such financial year to the Minister who, with the agreement of the Minister of Finance, must approve the budget for-
  - (a) the first financial year, before the first meeting of the Council; and
  - (b) every other financial year, before the beginning of such financial year.

## **19. Accountability**

- (1) The chairperson of the Council is the accounting officer of the Council.
- (2) The accounting officer is responsible for all moneys received and payments made by the Council.
- (3) The financial year of the Council ends on 31 March in each year.
- (4) The accounting officer must cause records to be kept in accordance with the Generally Accepted Accounting Principles that are necessary to represent fairly the state of affairs and business of the Council and to explain the transactions and financial position of the Council.
- (5) Annual financial statements must be prepared in respect of every financial year. The statements must consist of-
  - (a) a balance sheet dealing with the state of affairs of the Council;
  - (b) a return of income received and expenses incurred by the Council; and
  - (c) a statement of cash flow information.

- (6) The books of account, statements of account and annual financial statements of the Council must be audited annually by the Auditor-General. The Auditor-General must compile a report on the audit and submit a copy of it to the Minister and the chairperson of the Council.
- (7) The secretary of the Council must supply each member of the Council with a copy of the report of the Auditor-General.
- (8) As soon as practicable after the report of the Auditor-General has been submitted to the Minister in terms of subitem (6), the Minister must table it in Parliament.

## **20. Administrative, secretarial and other services**

[Heading substituted by GNR.906 of 2002 (as corrected by GNR.1575 of 2002).]

- (1) The Council may employ employees to provide such administrative, secretarial or other services to the Council and its committees as the Council may determine.
- (2) Despite subitem (1), the Council, with approval of the Minister, may contract any person, or arrange for officers of the Mine Health and Safety Inspectorate, to provide such administrative, secretarial and other services to the Council and its committees as the Council may determine.

[Item 20 substituted by GNR.906 of 2002 (as corrected by GNR.1575 of 2002).]

## **21. Abolition of Council or committee**

- (1) The Council and the permanent committees may be abolished by an Act of Parliament.
- (2) The Council may at any time abolish any other committee.
- (3) A permanent or ad hoc committee may at any time abolish any subcommittee established by that committee.

## **22. Limitation of liability**

- (1) A member or an *employee* of the Council does not incur any civil liability only because of doing or failing to do something which such member or *employee* may do or is required to do in terms of this Act or this Constitution.

- (2) The Council does not incur any civil liability only because a member, or an employee of the Council, or any person contracted to perform a function of the Council or a committee, or an officer of the Mine Health Safety Inspectorate assigned to perform such functions, took an action or failed to take an action under or in terms of this Act or this Constitution, and in taking or failing to take that action acted without negligence and in good faith.

[Item 22 substituted by GNR.906 of 2002 (as corrected by GNR.1575 of 2002).]

## **23. Amendment of constitution**

- (1)
- (a) If the Minister wants to amend the constitution, the Minister must furnish a proposal containing such amendments to the chairperson of the Council, who must convene a meeting to consider the proposal.
  - (b) At such meeting the Council must consider the proposal and resolve either to-
    - (i). support the proposal as it is;
    - (ii). support the proposal with certain amendments; or
    - (iii). oppose the proposal.
  - (c) The Council must submit its resolution to the Minister.
  - (d) If the Council resolves to support the proposal with certain amendments or to oppose the proposal, the motivation for such resolution and the amendments, if any, must be included in the submission to the Minister.
- (2)
- (a) If the Council wants the constitution to be amended, the Council must submit a proposal regarding such amendment to the Minister.
  - (b) Such proposal by the Council is deemed to be consultation by the Minister with the Council as contemplated in section 97(1).
  - (c) If the Minister is not satisfied with the amendments or the motivation for the amendments, the Minister may refer the proposal back to the Council for further consideration.

## **24. Definitions**

Unless the context otherwise indicates-

**'alternate'** means any person appointed as an alternate to a member under item 9(10);

**'chairperson'** means any person who chairs any meeting of the Council or a committee;

**'clear day'** means any day of the week except Sundays and public holidays;

**'committee'** means any permanent committee or other committee;

**'consensus'** means unanimous agreement;

**'establishing authority'** means-

- (i). in the case of the Council and a permanent committee, Parliament by legislation;
- (ii). in the case of an ad hoc committee, the Council; and
- (iii). in the case of a subcommittee, the Council, or any permanent or ad hoc committee that establishes the subcommittee;

**'member'** means any member of the Council or any committee and includes any alternate designated by a member to represent that member at a meeting of the Council or committee;

**'other committee'** means-

- (a) an ad hoc committee established for a limited term to perform any function of the Council which is not a function of any permanent committee; and
- (b) a subcommittee established by-
  - (i). the Council to perform any function of the Council which is not assigned by or under this Act to a permanent committee; and
  - (ii). a permanent or an ad hoc committee to perform any function of that committee; and

**'party'** means owners, employees or the State, as the case may be.

# **Declaration of Underground Mines, Excluding Coal Mines, to be Scheduled Mines**

**Published under**

GN R960 in *GG* 23616 of 12 July 2002

I, **Mavis Ann Hermanus, the Chief Inspector of Mines**, hereby declare all underground mines, excluding coal mines, to be Scheduled mines in terms of definition contained in Chapter 1 of the Minerals Act, 1991 (Act No. 50 of 1991) Regulations, in force in terms of Schedule 4 of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996), with effect from the publication of this notice.

## **TRANSITIONAL ARRANGEMENTS**

Current holders of Blasting Certificates for other mines are required to exchange their certificates for blasting certificates for Scheduled mines, at their own expense, within twelve (12) months of publication of this notice.

**M. A. HERMANUS**  
**Chief Inspector of Mines**

## **Notice in Terms of Section 98(9)**

**Published under**

GN R1416 in *GG* 27048 of 10 December 2004

I, **Phumzile Mlambo-Ngcuka, Minister of Minerals and Energy**, hereby give notice in terms of section 98(9) of the Mine Health and Safety Act, 1996 (Act 9 [sic] of 1996) that Annex A 'Ongoing Conformity Assessment' contained in the South African Bureau of Standards Specification SANS 1737 shall, for the purpose of regulations 16.2(1) and 16.2(2) published under Government Notice R569 of 17 May 2002, be deemed to be normative.

**MS P MLAMBO-NGUKA**  
**Minister of Minerals and Energy**

# Regulations Relating to the Payment of Levies by Mines on the Basis of Health and Safety Risk

## Published under

GN 846 in GG 29144 of 18 August 2006

I **BJ, SONJICA Minister of Minerals and Energy** under section 98(1)(zF), (zJ) read with section 43(eA) of the Mine Health and Safety Act, 1996 (Act no. 29 of 1996), after consultation with the Council, hereby make the regulations in the Schedule.

## SCHEDULE

### 1. Definitions

In this regulations any word or expression to which a meaning has been assigned in the Act shall have the same meaning, unless the context indicates otherwise-

"**overall research programme**" means the programme referred to in sections 43(eA) and 44(4).

"**the Act**" means the Mine Health and Safety Act, 1996 (Act 29 of 1996)

### 2. Establishment of a safety research account

There is hereby established a safety and health research account to which must be credited -

- (a) levies paid in terms of regulation 5; and
- (b) income accrued from the investment of money in that account.

### 3. Control of the Safety and Research Account

The safety and health research account is controlled by the Chief Inspector of Mines and must be used for the funding of -

- (a) research and surveys regarding, and for the promotion of, *health* and safety at mines; and
- (b) the administration costs of the overall research programme for relevant *health* and safety research.

#### **4. Determination of safety and health risk**

- (1) The Chief Inspector of Mines must annually, or at such intervals as the Chief Inspector of Mines may determine,-
  - (a) fix, for all mines determined by the Chief Inspector of Mines, a safety and *health* risk in accordance with criteria determined by the Council following consideration of the advice of the Safety in Mines Research Advisory Committee contemplated in section 44(3)(a);
  - (b) for every mine referred to in paragraph (a), impose a levy based on its *health* and safety risk; and
  - (c) in writing notify the *employer* of every mine referred to in paragraph (b), of the amount of the levy imposed and the date, place and manner of payment of the levy.
- (2) The Chief Inspector of Mines may by notice in writing to any *employer* call for any information required to determine the *health* and safety risk of a mine.
- (3) Every *employer* who has been notified as contemplated in regulation 3(c) of a levy payable in respect of a mine, must pay the levy in accordance with the notice and not later than the date specified in the notice.

#### **5. Overall research programme**

- (1) The Safety in Mines Research Advisory Committee when preparing the overall research programme as contemplated in section 44(4), must-
  - (a) if deemed necessary, provide the tripartite stakeholders with reasonable assistance to compile their respective statements of proposed research needs;
  - (b) take into account such parameters and key dimensions as the Council must in writing determine;
  - (c) give due consideration to any research needs proposed to it by the Chief Inspector of Mines;
  - (d) give due consideration to any research needs proposed to it by employers, employees or the state as being critical to the improvement of *health* or safety; and
  - (e) make recommendations to the Council on all the critical research needs identified by any of the tripartite stakeholders or the Chief Inspector of Mines and the research or survey projects formulated to address such needs.
- (2) After considering the overall research programme as contemplated in section 43(eA), the Council must -
  - (a) deliver a copy of the programme to the Minister of Finance for consideration, and

- (b) submit a copy of the overall research programme to the Minister for approval as contemplated in regulation 5.

## **6. Granting approval for the research programme**

- (1) The Minister, after consultation with the Minister of Finance, must consider and approve the overall research programme within 30 days after receiving a copy of the overall research programme.
- (2) Prior to granting approval contemplated in regulation 5(1) the Minister-
  - (a) must consider and decide on any proposals by the Council not reached by consensus, having regard to the report contemplated in item 17(3) of Schedule 6 to the Act;
  - (b) may amend the overall research programme to take account of any comments of the Minister of Finance.
- (3) The Minister must as soon as practicable, notify the *Council* of the Minister's decisions contemplated in regulation 6(1).

## **7. Management of the Research Account**

The Chief Inspector of Mines -

- (1) must ensure that the required funds to pay the costs contemplated in regulation 3 are released from time to time from the funds in the safety and *health* research account;
- (2) may conclude agreements with other persons for the realisation of the overall research programme approved in terms of regulation 6(1); and
- (3) may invest some or all of the money in the safety and *health* research account with an investment company approved by the Minister.

## **8. Repeal of regulations, and savings**

- (1) The regulations made under Chapter 35 of the Minerals Act, 1991 (Act 50 of 1991) in force in terms of item 4 of Schedule 4 of the Act are hereby repealed.
- (2) Any action taken under any provision of Chapter 35 of the regulations in force in terms of item 4 of Schedule 4 of the Act is deemed to have been taken in terms of these regulations.

## **MINERALS ACT REGULATIONS**

**Published under**

GN R992 in GG 2741 of 26 June 1970

**as corrected by**

GN R304 in GG 3397 of 1 March 1972

GN R2103 in GG 4498 of 15 November 1974

**as amended**

by GN R303 in GG 3397 of 1 March 1972

GN R305 in GG 3397 of 1 March 1972

GN R1346 in GG 3625 of 4 August 1972

GN R2101 in GG 4498 of 15 November 1974

GN R2102 in GG 4498 of 15 November 1974

GN R513 in GG 5488 of 1 April 1977

GN R1189 in GG 6489 of 8 June 1979

GN R537 in GG 6892 of 21 March 1980

GN R1885 in GG 7219 of 12 September 1980

GN R2227 in GG 7284 of 31 October 1980

GN R2228 in GG 7283 of 31 October 1980

GN R2703 in GG 7953 of 11 December 1981

GN R2264 in GG 10502 of 31 October 1986

GN R367 in GG 10621 of 27 February 1987

GN R2566 in GG 11037 of 20 November 1987

GN R1352 in GG 11397 of 8 July 1988

GN R1889 in GG 11504 of 16 September 1988

GN R1130 in GG 11905 of 2 June 1989

GN R1339 in GG 12542 of 22 June 1990

GN R1644 in GG 12610 of 13 July 1990

GN R2706 in GG 12858 of 23 November 1990

GN R2923 in GG 12904 of 10 December 1990

GN R160 in GG 13002 of 1 February 1991

GN R398 in GG 13038 of 1 March 1991

GN R1263 in GG 13288 of 7 June 1991

GN R2062 in GG 13473 of 23 August 1991

GN R3083 in GG 13684 of 20 December 1991

GN R814 in GG 13811 of 13 March 1992

GN R1110 in GG 13927 of 16 April 1992

GN R2223 in GG 14192 of 7 August 1992

GN R1556 in GG 15067 of 20 August 1993

GN R2449 in GG 15362 of 24 December 1993

GN R31 in GG 16214 of 13 January 1995

GN R530 in GG 16363 of 13 April 1995

GN R94 in GG 17725 of 15 January 1997

GN R847 in GG 18078 of 21 June 1997

GN R802 in GG 18992 of 19 June 1998

GN R801 in GG 20219 of 12 June 1999

GN R1324 in GG 20606 of 12 November 1999  
GN R1325 in GG 20606 of 12 November 1999  
    GN R569 in GG 23410 of 17 May 2002  
    GN R788 in GG 23498 of 14 June 2002  
    GN R904 in GG 23584 of 2 July 2002  
    GN R905 in GG 23584 of 2 July 2002  
[as corrected by GN R1572 in GG 24168 of 13 December 2002]  
    GN R918 in GG 23585 of 2 July 2002  
[as replaced by GN R1574 in GG 24168 of 13 December 2002]  
    GN R959 in GG 23615 of 12 July 2002  
    GN R1574 in GG 24168 of 13 December 2002  
    GN R1578 in GG 24168 of 13 December 2002  
    GN R1237 in GG 25404 of 29 August 2003  
    GN R583 in GG 26333 of 14 May 2004  
    GN R584 in GG 26333 of 14 May 2004  
GN R1305 of 2004 in GG 26936 of 12 November 2004  
    GN R1323 in GG 26963 of 12 November 2004  
    GN R1224 in GG 28333 of 15 December 2005  
    GN R1225 in GG 28333 of 15 December 2005  
        GN 846 in GG 29144 of 18 August 2006  
        GN 911 in GG 29214 of 8 September 2006  
    GN 1278 in GG 29457 of 15 December 2006  
        [with effect from 1 July 2007]  
        GN R88 in GG 30698 of 1 February 2008  
        GN R91 in GG 30698 of 1 February 2008  
    GN R1015 in GG 33711 of 5 November 2010

[with effect from a date on which Offshore Installations are published in the Government Gazette]  
    GN R446 in GG 34308 of 27 May 2011

[with effect from the date on which the relevant new regulations are published in the Government Gazette]

    GN R331 in GG 38708 of 24 April 2015  
    GN R895 in GG 41065 of 25 August 2017  
    GN R897 in GG 41065 of 25 August 2017  
    GN R898 in GG 41065 of 25 August 2017

The State President has, under the powers vested in him by section 12 of the Mines and Works Act, 1956 (Act 27 of 1956), made the following regulations in substitution of the regulations published in Government Notice R1609, dated 28 September 1962, as amended by Government Notices R2058 of 14 December 1962, R462 of 29 March 1963, R808 of 29 May 1964, R1987 of 4 December 1964, R1988 of 4 December 1964, R261 of 26 February 1965, R262 of 26 February 1965, R329 of 12 March 1965, R334 of 12 March 1965, R576 of 30 April 1965, R1069 of 16 July 1965, R1127 of 30 July 1965, R1483 of 1 October 1965 and R228 of 18 February 1966:

## CHAPTER 1

### DEFINITIONS

1. In these Regulations or any amendment thereof, unless the context otherwise indicates-

(1A) '**automatic winding plant**' means any hoist or other appliance for the conveyance of persons, material or mineral by means of cage, skip or other means of conveyance in any shaft or winze where the driving machinery is normally operated automatically, without a driver in attendance, but shall not include any lifting machine, elevator, chairlift, endless rope haulage or scraper winch installation;

[Definition of 'automatic winding plant' inserted by GNR.2703 of 1981.]

(1) '**banksman**' means a person stationed at the shaft top, who shall be the holder of an onsetter's certificate, appointed by the manager to supervise the loading and unloading of persons in the cage, skip, or other means of conveyance and to give the necessary signals;

[Definition of 'banksman' amended by GN R992 of 1970 and by GNR.1352 of 1988.]

(2) '**blasting material**' see 'explosives';

[Definition of 'blasting material' amended by GNR.992 of 1970]

(2A) '**boiler**' means-

- (a) any apparatus adapted to convert continuously any liquid into steam, vapour or gas at a pressure higher than that due to the atmosphere, where the heat is derived from a source other than steam or the ambient temperature of the atmosphere, including any super-heater or economizer comprising an integral part thereof; or
- (b) any economizer or separately-fired super-heater not comprising an integral part of such apparatus, and includes every fitting and appurtenance pertaining to any such apparatus, economizer or super-heater: Provided that if any apparatus consists of a combination of two or more parts each of which is capable of adaption for use as a separate boiler by the closing of one or more stop valves or stop cocks, each of the said parts shall be deemed to be a boiler: Provided further that-

- (i). a steam generator fitted with a standpipe or riser which is vented directly to the atmosphere and the vent of which is of such dimensions as to prevent the development of any pressure exceeding 35 kPa within the vessel, and provided that no valve or other obstruction is inserted in the standpipe or riser to prevent the vessel from freely venting to the atmosphere; or
- (ii). any apparatus of which the product of the manufacturer's intended maximum working pressure in kilopascal and the volume in cubic metres does not exceed the figure 10, shall not be deemed to be a boiler;

[Definition of 'boiler' inserted by GNR.2449 of 1993]

(3) '**car**' means any car, cage, cradle or other conveyance in an elevator hatchway;

[Definition of 'car' amended by GNR.992 of 1970]

(4) '**certificated**' ...

[Definition of 'certificated' amended by GNR.992 of 1970, by GN 160 of 1991 and deleted by GNR.3083 of 20 December 1991]

(4A) '**chairlift**' means any appliance or combination of appliances used or intended to be used for the conveyance of persons or material by means of chairs or other means of conveyances suspended from an endless hauling rope or with chairs or conveyances running on a rope or in or on a rail circuit and provided with a hauling rope or chain;

[Definition of 'chairlift' inserted by GNR.1885 of 12 September 1980, substituted by GNR.2228 of 1980 and deleted by GNR.3083 of 1991 and inserted by GNR.2449 of 1993.]

(4B) '**competent person**' means a person who-

(a)

- (i). is qualified by virtue of his knowledge, training, skills and experience to organize the work and its performance;
- (ii). is familiar with the provisions of the Act and the regulations which apply to the work to be performed; and
- (iii). has been trained to recognise any potential or actual danger to *health* or safety in the performance of the work; or

(b) is in possession of the appropriate certificate of competency where such certificate is required by these Regulations;

[Definition of 'competent person' inserted by GNR1352 of 8 July 1988]

(5) '**controlled mine**' or '**controlled works**' means a mine or a works which is controlled under the Occupational Diseases in Mines and Works Act, 1973 (Act 78 of 1973);

[Definition of 'controlled mine' substituted by GNR.537 of 21 March 1980.]

(5A) '**Council**' means the Mine Health and Safety Council established in terms of section 41 of the Mine Health and Safety Act, 1996 (Act 29 of 1996)

[Definition of 'Council' inserted by GNR.918 of 2002 and GNR.1574 of 2002.]

(6) '**elevator**' means any installation used or intended to be used for the conveyance of persons, material, explosives or mineral by means of a car fitted with safety catches running in a hatchway on fixed solid guides and serving defined landing levels, where the control system of the driving machinery is not normally operated manually from the motor or engine room;

[Definition of 'elevator' deleted by GNR.3083 of 1991 and inserted by GNR.2449 of 1993.]

(6A) '**emergency**' means an emergency which may endanger life or *health*;

[Definition of 'emergency' inserted by GNR.513 of 1977.]

(6AA) '**employer**' means an *employer* as defined in section 102 of the Mine Health and Safety Act, 1996 (Act 29 of 1996);

[Definition of 'employer' inserted by GNR.802 of 1998.]

(6B) '**engineer**' means a person who is the holder of an appropriate mechanical or electrical engineer's certificate of competency appointed in terms of these Regulations;

This definition has been added to replace that faceless person referred to as 'the person appointed in terms of regulation 2.13.1, 2.13.2 or 2.13.3'.

[Definition of 'engineer' inserted by GN.160 of 1991.]

(7) '**explosives**' or '**blasting material**' shall have the same meaning as is assigned to that term in the Explosives Act, 1956 (Act 26 of 1956);

[Definition of 'explosives' amended by GNR.992 of 1970.]

(8) '**fiery mine**' means a mine which is for the time being a fiery mine in terms of a declaration by the Principal Inspector of Mines;

[Definition of 'fiery mine' amended by GNR.992 of 1970 and by GNR.94 of 1997.]

(8A) '**flammable gas warning device**' means a device designed to give a clearly audible or a clearly visible warning, or both a clearly audible and a clearly visible warning, should it be placed in an atmosphere containing more than one comma four parts per hundred by volume of flammable gas and which complies with the South African Bureau of Standards specification SABS 1515;

[Definition of 'flammable gas warning device' inserted by GNR.367 of 1987 and substituted by GNR.2062 of 1991.]

(8B) '**flammable gas measuring instrument**' means an instrument designed to determine the concentration of flammable gas present in the atmosphere in parts per hundred by volume and which complies with the South African Bureau of Standards specification SABS 1515;

[Definition of 'flammable gas measuring instrument' inserted by GNR.2062 of 1991.]

(9) '**ganger**' or '**miner**' means a person in charge of workmen;

[Definition of 'ganger' amended by GNR.992 of 1970 and by GNR.1352 of 1988.]

(10) '**gauge pressure**' means the pressure in excess of that of the atmosphere;

[Definition of 'gauge pressure' amended by GNR.992 of 1970.]

(11) '**hatchway**' means any well, compartment of a shaft or winze or any vertical or inclined way in which a car or counterpoise is operated;

[Definition of 'hatchway' amended by GNR.992 of 1970 and substituted by GNR.2449 of 1993]

(11A) '**hazardous area**' means-

- (i). in respect of a coal mine-
  - (aa) a return airway; or
  - (bb) an area within 180 metres of any working face; or
- (ii). any area in or at a mine or at a works in addition to an area referred to in regulation 1(11A)(i) where there may be a risk of igniting gas, dust, vapour or any other explosive material;

[Definition of 'hazardous area' inserted by GN.160 of 1991.]

(12) '**landing**' means any floor, platform or station which is an authorised stopping place for the elevator car;

[Definition of 'landing' amended by GNR.992 of 1970.]

(13) '**lifting machine**' means any crane, crab, winch, pulley block, chain block, fork lift or similar appliance;

[Definition of 'lifting machine' amended by GNR.992 of 1970.]

- (14) **'lifting tackle'** means any chain sling, rope sling, ring, hook, shackle, swivel, spreader, shear-legs, derrick or similar appliance;

[Definition of 'lifting tackle' amended by GNR.992 of 1970]

- (14A) **'light metal'** means .....

[Definition of 'light metal' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

- (15) **'manager'** means the person appointed to be responsible for the control, management and direction of a mine or works and includes the term 'general manager';

[Definition of 'manager' amended by GN R992 of 1970 and by GNR.1352 of 1988.]

- (16) **'material'** means whatever may be conveyed by means of a winding plant, elevator or self-propelled mobile machine, excluding persons, mineral and explosives;

[Definition of 'material' amended by GNR.992 of 1970 and by GNR.1885 of 1980 and by GNR.2228 of 1980 and substituted by GN.160 of 1991]

- (17) **'metalliferous mine'** means and includes any mine other than a coal mine or a diamond mine;

[Definition of 'metalliferous mine' amended by GNR.992 of 1970.]

- (17A) **'methanometer'** .....

[Definition of 'methanometer' inserted by GNR.367 of 1987 and deleted by GNR.2062 of 1991]

- (18) **'miner'** see 'ganger';

[Definition of 'miner' amended by GNR.992 of 1970 and by GNR.1352 of 1988.]

- (19) **'misfired hole'** means a shot hole or part of a shot hole in which any explosive or any portion thereof has failed to explode;

[Definition of 'misfired hole' amended by GNR.992 of 1970]

- (20) **'non-fiery mine'** means a mine which is for the time being not a fiery mine in terms of a declaration made under these Regulations by the Principal Inspector of Mines;

[Definition of 'non-fiery mine' amended by GNR.992 of 1970 and by GNR.94 of 1997.]

(21) '**onsetter**' means a person who shall be the holder of an onsetter's certificate issued by the Principal Inspector of Mines or who has been assessed competent against a skills program recognised by the Mining Qualifications Authority for this purpose, appointed by the manager to be in charge of a cage, skip or other means of conveyance underground in which persons are being raised or lowered and to give the necessary signals;

[Definition of 'onsetter' amended by GNR.992 of 1970, by GNR.1352 of 1988 and by GNR.88 of 2008.]

(21B) '**prescribed permit**' means a permit prescribed by regulation 34.1;

[Definition of 'prescribed permit' inserted by GNR.2449 of 1993.]

(22) '**pressure vessel**' means any vessel in the interior or jacket of which a pressure of more than 40 kilopascals gauge pressure may occur but shall not include any-

- (a) boiler;
- (b) vessel in which the pressure is exerted by a liquid harmless to the vessel, the temperature of which does not exceed the boiling point of the liquid at atmospheric pressure: Provided that a cushion of gas or vapour cannot form above the liquid;
- (c) working cylinder or chamber of a steam, heat or air engine, nor any transmitting column or pipe line;
- (d) portable gas container;
- (e) vessel in which the maximum working gauge pressure exceeds 40 kilopascals but in which the product of the working gauge pressure in kilopascals and the capacity in cubic metres does not exceed 10;
- (f) cylindrical vessels with an internal diameter of less than 150 mm;
- (g) inflatable apparatus;

[Definition of 'pressure vessel' amended by GNR.992 of 1970, by GNR.303 of 1972, by GNR.2102 of 1974 and by GNR.2703 of 1981 and by GN.160 of 1991.]

(23) '**raise**' means any tunnel having an inclination above the horizontal in the direction of working of more than five degrees and not included in the definition of 'shaft';

[Definition of 'raise' amended by GNR.992 of 1970.]

(24) '**reef**', except in the case of coal or diamondiferous formations, means a vein, bed or deposit, other than a surface alluvial deposit, containing minerals;

[Definition of 'reef' amended by GNR.992 of 1970.]

(25) '**safety pillar**' means every portion of a reef, mineral deposit or ground left in situ for the support and protection of the surface, objects thereon or underground workings;

(26) '**scheduled mine**' means a gold mine where more than 1 000 persons are employed underground at any one time or any other mine declared as such by the *Chief Inspector*: Provided that the *Chief Inspector*, in the case of a gold mine, may declare such a mine not to be a scheduled mine by virtue of the district in which it is situated, by giving notice in writing to the manager;

[Definition of 'scheduled mine' amended by GNR.537 of 1980 and by GNR.94 of 1997.]

(27) '**scheduled person**' ...

[Definition of 'scheduled person' amended by GNR.992 of 1970 and deleted by GNR.1352 of 1988.]

(27A) '**self-propelled mobile machine**' means any machine which is self-propelled, requires a driver and is used for the purpose of performing mining operations or for performing similar operations at a works;

[Definition of 'self-propelled mobile machine' inserted by GNR.1885 of 1980 and amended by GN.160 of 1991.]

(28) '**shaft**' means any tunnel having a cross-sectional dimension of 3,7 metres or over and-

- (a) having an inclination to the horizontal of 15 degrees or over; or
- (b) having an inclination to the horizontal of less than 15 degrees but more than 10 degrees where the speed of traction may exceed two metres per second;

[Definition of 'shaft' amended by GNR.992 of 1970 and by GNR.303 of 1972.]

(28A) '**shaft station**' means the area surrounding the shaft at every station level and identified and demarcated as the shaft station by the *employer* in terms of Regulation 16.61.1;

[Definition of 'shaft station' inserted by GNR.802 of 1998.]

(29) '**shot hole**' means any drill hole charged with or intended to be charged with explosives;

[Definition of 'shot hole' amended by GNR.992 of 1970.]

(30) '**skilled person**' ...

[Definition of 'skilled person' amended by GNR.992 of 1970 and deleted by GNR.3083 of 1991.]

(31) '**socket**' means any shot hole, or part of a shot hole, known to be a misfired hole, which remains after having been charged with explosives and blasted or which, for any other reason, may be suspected of having contained explosives at any time and includes any shot hole, from which all explosives have been extracted in accordance with the procedure prescribed by these Regulations;

[Definition of 'socket' amended by GNR.992 of 1970.]

- (31A) **'standard'** means a standard as defined in section 102 of the Mine Health and Safety Act, 1996 (Act 29 of 1996);

[Definition of 'standard' inserted by GNR.802 of 1998]

- (31AA) **'station level'** means the bank and any level in a shaft, at which conveyances stop for the loading or unloading of persons, equipment, material, minerals or explosives;

[Definition of 'station level' inserted by GNR.802 of 1998]

- (32) **'steeply inclined'** in connection with shafts or other underground excavations means an inclination to the horizontal of more than 35 degrees;

[Definition of 'steeply inclined' amended by GNR.992 of 1970.]

- (33) **'stope'** means an underground excavation made in the removal of any ground or mineral other than coal, but does not apply to excavations made for engine rooms and pump chambers or for development purposes such as shafts, drives, winzes and raises;

[Definition of 'stope' amended by GNR.992 of 1970.]

- (34) **'the Act'** means the Minerals Act, 1991 (Act 50 of 1991);

[Definition of 'the Act' amended by GNR.992 of 1970 and by GNR.3083 of 1991.]

- (35) **'ventilating district'** means such part of a mine as has an independent intake commencing from a main intake air-course and an independent return air-way terminating at a main return air-course;

[Definition of 'ventilating district' amended by GNR.992 of 1970.]

- (35AA) **'winding-engine driver'** means a person who is the holder of a winding-engine driver certificate issued by the Chief Inspector of Mines or who has been assessed competent against a qualification recognised by the Mining Qualifications Authority for this purpose;

[Definition of 'winding-engine driver' inserted by GNR.88 of 2008.]

- (36) **'water blast'** ...

[Definition of 'water blast' amended by GNR.992 of 1970 and deleted by GNR.2062 of 1991.]

(37) '**winding plant**' means any hoist or other appliance used or intended to be used for the conveyance of persons, material, explosives or mineral by means of a cage, skip or other means of conveyance in any shaft or winze where the control system of the driving machinery can normally be operated manually from the motor or engine room, but excluding any elevator, lifting machine, endless rope haulage and scraper winch installation;

[Definition of 'winding plant' amended by GNR.992 of 1970 and by GNR2703 of 1981, deleted by GNR.3083 of 1991 and inserted by GNR.2449 of 1993]

(38) '**winze**' means any tunnel having an inclination below the horizontal in the direction of working of more than five degrees and not included in the definition of 'shaft';

[Definition of 'winze' amended by GNR.992 of 1970.]

In connection with electricity, the following definitions shall apply:

(38A) '**armouring**' .....

[Definition of 'armouring' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(39) '**circuit**' .....

[Definition of 'circuit' amended by GNR.992 of 1970 and repealed by GNR.897 and by GNR.898 of 2017.]

(39A) '**collectively screened**' .....

[Definition of 'collectively screened' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(40) '**conductor**' .....

[Definition of 'conductor' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(41) '**covered with insulating material**' .....

[Definition of 'covered with insulating material' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(42) '**dead**' .....

[Definition of 'dead' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR898 of 2017.]

(43) '**earthed**' .....

[Definition of 'earthing' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

**(44) 'electrical apparatus'** .....

[Definition of 'electrical apparatus' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

**(44A) 'explosion protected apparatus'** .....

[Definition of 'explosion protected apparatus' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

**(45) 'extra high pressure'** .....

[Definition of 'extra high pressure' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

**(45A) 'flameproof apparatus'** .....

[Definition of 'flameproof apparatus' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

**(45B) 'flexible cable'** .....

[Definition of 'flexible cable' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

**(46) 'high pressure'** .....

[Definition of 'high pressure' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

**(46A) 'increased safety apparatus'** .....

[Definition of 'increased safety apparatus' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

**(46B) 'individually screened'** .....

[Definition of 'individually screened' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

**(46C) 'intrinsically safe apparatus'** .....

[Definition of 'intrinsically safe apparatus' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

**(47) 'live'** .....

[Definition of 'live' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(48) **'low pressure'** .....

[Definition of 'low pressure' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(49) **'medium pressure'** .....

[Definition of 'medium pressure' amended by GN R992 of 26 June 1970 and repealed by GN R897 of 25 August 2017 and by GN R898 of 25 August 2017.]

(50) **'metallic covering'** .....

[Definition of 'metallic covering' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(50A) **'movable electric apparatus'** .....

[Definition of 'movable electric apparatus' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(50B) **'portable electric apparatus'** .....

[Definition of 'portable electric apparatus' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(51) **'pressure'** .....

[Definition of 'pressure' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(52) **'system'** .....

[Definition of 'system' amended by GNR.992 of 1970 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(53) **'trailing cable'** .....

[Definition of 'trailing cable' inserted by GN.160 of 1991 and repealed by GNR.897 of 2017 and by GNR.898 of 2017.]

(54) **'workings'** means any excavation made or being made for the purpose of searching for or winning minerals.

## CHAPTER 2

### RESPONSIBILITY

#### 2.1 and 2.2 ...

[Regs. 2.1 and 2.2 amended by GNR.537 of 1980 and deleted by GNR.3083 of 1991.]

**2.3.1** The owner of a mine or works who may be temporarily or permanently absent from the Republic, shall appoint some person resident in the Republic to be his agent or representative.

**2.3.2** Such owner shall give notice in writing to the Principal Inspector of Mines, of the name and address, and of any change in the name or address, of such agent or representative.

[Reg. 2.3.2 amended by GNR.537 of 1980, by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.3.3** Such agent or representative shall be deemed to be the owner for the purposes of the regulations.

**2.3.4** In the absence of any such notice as aforesaid, the person acting as manager of such mine or works shall be deemed to be the owner for the purposes of these Regulations.

[Reg. 2.3.4 amended by GNR.1189 of 1979.]

#### 2.4 and 2.5.1 ...

[Regs. 2.4 and 2.5.1 deleted by GNR.3083 of 1991.]

**2.5.2.1** In the case of a mine in which more than 50 persons are at any one time employed underground, the manager shall appoint a person who is the holder of a mine manager's certificate valid for the class of mine to which the mine belongs and issued in accordance with these Regulations, unless the manager himself is the holder of such a certificate. The person so appointed, or the manager who is the holder of such a certificate himself, as the case may be, shall be responsible for the fulfilment and implementation of these Regulations in respect of the underground workings of the mine.

[Reg. 2.5.2.1 substituted by GNR.1189 of 1979.]

**2.5.2.2** In the case of any mine where the manager thereof is himself not the holder of a mine manager's certificate, or in the case of a works, the regional director may, by notice in writing served on the owner of such mine or works, require the appointment of a person who is the holder of a mine manager's certificate issued in accordance with these regulations.

[Reg. 2.5.2.2 substituted by GNR.1189 of 1979 and by GNR.3083 of 1991.]

**2.5.3.1** A mine where the appointment is required of a person who is the holder of a mine manager's certificate may be worked without the services of such certificate holder for a period of not more than 60 days in any period of six consecutive months. The owner shall in these circumstances appoint a competent person, as required by regulation 2.5.3.2 or 2.5.3.3, as the case may be, to act in the place of such certificate holder during such period of 60 days or portion thereof and such competent person shall for the duration of his appointment have all the duties and responsibilities of the certificate holder under the regulations: Provided that the appointment of such competent person shall not be taken to relieve the certificate holder of any personal responsibility under the regulations.

[Reg. 2.5.3.1 substituted by GNR.1189 of 1979, amended by GNR.2703 of 1981 and by GNR.1352 of 1988.]

**2.5.3.2** Where the number of persons employed underground at any one time exceeds 300 no such competent person shall be appointed to act in the place of the holder of a mine manager's certificate unless he is the holder of a valid mine overseer's certificate valid for the class of mine to which the mine belongs and issued in accordance with these regulations.

[Reg. 2.5.3.2 amended by GN R1189 of 8 June 1979.]

**2.5.3.3** Where the number of persons employed underground at any one time is 300 or less no such competent person shall be appointed unless he is the holder of a blasting certificate valid for the class of mine to which the mine belongs and issued in accordance with these regulations.

**2.5.4** The manager of a mine or works shall not in addition be appointed to hold office as manager of any other mine or works, except with the written permission of the Principal Inspector of Mines.

[Reg. 2.5.4 amended by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.5.5** No owner or tributor operating a mine or works on his own account or in partnership with any other person or persons shall manage such mine or works except with the written permission of the Principal Inspector of Mines.

[Reg. 2.5.5 amended by GNR.1189 of 1979, by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.5.6** Any appointment under regulation 2.5.2.1 shall be made in writing by the manager and shall within three days after that date of appointment be reported in writing to the Principal Inspector of Mines, accompanied by a copy of the letter of appointment.

[Reg. 2.5.6 substituted by GNR.1189 of 1979, by GNR.3083 of 1991, by GNR.814 of 1992 and by GNR.94 of 1997.]

**2.6.1** The manager may appoint one or more competent persons as subordinate managers to assist him in the control, management and direction of the mine or works, and every such person shall, to an extent to be clearly defined in his letter of appointment, have the same responsibilities under the regulations as the manager: Provided that the appointment of such persons shall not be taken to relieve the manager of any personal responsibility under the regulations.

[Reg. 2.6.1 amended by GNR.1352 of 1988.]

**2.6.2** The Principal Inspector of Mines may require the appointment of one or more subordinate managers at any mine or any works when in his opinion this is necessary.

[Reg. 2.6.2 amended by GNR.3083 of 1991.]

**2.6.3** No person shall be appointed as a subordinate manager of any underground workings of a mine where the appointment is required of a person who is the holder of a mine manager's certificate, unless he is the holder of a mine manager's certificate valid for the class of mine to which the mine belongs and issued in accordance with these Regulations: Provided that for a period of not more than 60 days in any period of six consecutive months the post of such subordinate manager may be filled by the appointment of a person who is the holder of a mine overseer's certificate valid for the class of mine to which the mine belongs and issued in accordance with these Regulations: Provided further that this regulation shall not apply to any opencast mine.

[Reg. 2.6.3 amended by GNR.305 of 1972, substituted by GNR.1189 of 1979 and amended by GNR.2703 of 1981.]

**2.6.4** Any appointment made under regulation 2.6.1 shall within three days thereof be reported in writing to the Principal Inspector of Mines, and such report shall be accompanied by a copy of the letter of appointment.

[Reg. 2.6.4 amended by GNR.1189 of 1979, by GNR.3083 of 1991 and by GNR.94 of 1997.]

- 2.7** Where in any of these Regulations no particular person is referred to as being responsible for compliance with the requirements thereof, the manager, or any person appointed to act as manager, shall, subject to the provisions of regulation 3.11 be deemed to be so responsible.
- 2.8** In the case of a fiery mine the manager, if he is the holder of a mine manager's certificate valid for the class of mine to which the mine belongs and issued in accordance with these Regulations, or a person appointed under regulation 2.5.2.1, or a subordinate manager who is the holder of such a certificate, shall reside on the mining property or at some other place in the immediate neighbourhood of the mine. Such manager, person or subordinate manager, shall not reside at a greater distance than 15 kilometres from the mine and he shall not have any commitment which will necessitate his frequent or prolonged absence from the mine.

[Reg. 2.8 amended by GNR.303 of 1972 and substituted by GNR.1189 of 1979.]

**2.9** The manager shall-

**2.9.1** ...

[Reg. 2.9.1 deleted by GNR.3083 of 1991.]

**2.9.2** appoint such persons as may be necessary to assist him in enforcing such observation of the regulations;

**2.9.3** ...

[Reg. 2.9.3 deleted by GNR.3083 of 1991.]

**2.9.4** as soon as practicable after the occurrence of a breach of any provision of these Regulations report such breach to the Principal Inspector of Mines or take such other disciplinary steps as such Principal Inspector of Mines may have directed or approved of and enter particulars of such breach and of the disciplinary steps taken in a register.

[Reg. 2.9.4 amended by GNR.1189 of 1979, substituted by GNR.3083 of 1991 and amended by GNR.94 of 1997.]

**2.10** The manager shall further-

**2.10.1** on taking over a mine or works acquaint himself with such notices as may have been issued to his predecessor or predecessors by a Principal Inspector of Mines, who shall on request supply copies of such notices;

[Reg. 2.10.1 amended by GNR.1189 of 1979, by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.10.2** not permit any incompetent or inexperienced workman to be employed on dangerous work, or work upon the proper performance of which the safety of person depends;

**2.10.3.1** not allow any ganger or miner to be placed in charge of a gang or gangs of workmen which, regard being had to the number of persons therein or to the nature or position of their working places, such ganger or miner is unable to supervise efficiently in accordance with the requirements of these Regulations;

**2.10.3.2** in no case allow the ganger or miner to have charge of workmen scattered over more places than can be generally inspected without undue exertion within the course of 40 minutes;

**2.10.3.3** not allow any ganger or miner to have charge of more working places or machine drills or persons than may be determined or approved by the Principal Inspector of Mines at any mine or section of a mine where such determination or approval is in the opinion of the Principal Inspector of Mines necessary in the interests of safety or *health*: Provided that in an emergency he may allow a ganger to take charge of the workmen of one other ganger for not more than three consecutive shifts;

[Reg. 2.10.3.3 amended by GNR.305 of 1972, by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.10.4** provide that when any person employed in or about the mine or works receives injury by accident or otherwise, the same shall be reported to him without delay;

**2.10.5** cause all plant, material and other things necessary for compliance with the requirements of these Regulations to be provided and maintained in good order;

**2.10.6** provide or cause to be provided underground such waiting places as may be necessary for the use of persons prior to entering their working places, and shall, by the means approved in writing by the Principal Inspector of Mines prevent such persons from proceeding to the working places until they have been instructed to do so by the ganger or miner who is responsible for the safety of the working places when they enter them, and shall further satisfy himself by weekly reports from the shift bosses that this regulation is being strictly observed;

[Para. 2.10.6 substituted by GNR.1352 of 8 July 1988, amended by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.10.7 to 2.10.9 inclusive ...**

[Para. 2.10.7 to 2.10.9 inclusive repealed by GNR.904 of 2002.]

**2.10.10 ...**

[Para. 2.10.10 amended by GNR.3083 of 1991 and by GNR.94 of 1997 and repealed by GNR.904 of 2002.]

**2.10.11.1 ...**

[Reg. 2.10.11.1 and 2.10.11.2 substituted for reg. 2.10.11 by GNR.305 of 1972.  
Reg. 2.10.11.1 repealed by GNR.1278 of 2006.]

**2.10.11.2 ...**

[Reg. 2.10.11.1 and 2.10.11.2 substituted for reg. 2.10.11 by GNR.305 of 1972.  
Reg. 2.1 repealed by GNR.1278 of 2006.]

**2.10.12** provide that adequate watch be kept on all reasonably accessible sources of danger from flooding of the mine or works, and that he or his representative be immediately informed of any possibility of such danger;

**2.10.13** provide for adequate watch to be kept on all artificial constructions at his mine or works for conserving water or which may cause water to converge or accumulate, and give notice without delay to the manager, or his representative, of all mines or works situated below such constructions of any possibility of flooding by reason of such constructions;

**2.10.14 ...**

[Para. 2.10.14 amended by GNR.303 of 1972, by GNR.2102 of 1974, substituted by GN.160 of 1991 and amended by GNR.3083 of 1991 and by GNR.94 of 1997 and repealed by GNR.91 of 2008.]

**2.10.15** ensure that in the construction of any dump or slimes dam in the neighbourhood of any building, thoroughfare or other public road, railway or public place, no danger to life or limb or damage to property can result therefrom;

[Para. 2.10.15 amended by GNR.1352 of 1988.]

**2.10.16** cause in a stamp mill or treatment building all amalgamating plates, extractor boxes, and launders in which amalgam can collect to be covered with screens or other devices approved by a Principal Inspector of Mines, and ensure that such screens or devices are kept under double lock and such plates or boxes and launders are not uncovered for any purpose except in the presence of at least two reliable persons each of whom he shall cause to be in possession of one of the keys;

[Para. 2.10.16 amended by GNR.1352 of 1988, by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.10.17** cause or permit unwrought precious metal in the form of bullion, retorted gold, amalgam, zinc gold slimes or shavings, lead strips or bars, untreated black sands, matte, or any other rich by-products only to be handled in the presence and under the direct supervision of at least two reliable persons;

[Para. 2.10.17 amended by GNR.367 of 1987 and by GN R1352 of 1988.]

**2.10.18** cause amalgam, untreated black sands, scrapings, retorted gold bullion and zinc gold slimes after removal from the filter press if and when stored to be forthwith deposited in a safe, strongroom, or other receptacle which he shall cause to be kept under double lock and shall not cause or permit such safe, strongroom, or other receptacle to be opened for any purpose whatsoever except in the presence of at least two reliable persons, each of whom he shall cause to be in possession of one of the keys; and

[Para. 2.10.18 amended by GNR.1352 of 1988.]

**2.10.19** whenever considered necessary or desirable by him, cause any person employed on reduction works or a refinery to be searched by any person whom he has authorised in writing to do so.

[Para. 2.10.19 amended by GNR.367 of 1987.]

**2.11** When the operations at any mine or works, or portion of any mine or works, are discontinued and such mine or works, or portion of such mine or works, are abandoned the owner or the person acting as manager of such mine or works at the time of such discontinuance or abandonment shall continue to be responsible for compliance with the provisions of the regulations until the Director: Mineral Development, in consultation with the Director-General of the Department of Water Affairs, has issued to him a certificate that such provisions have been complied with.

[Reg. 2.11 substituted by GNR.1339 of 1990, amended by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.12.1** .....

[Reg. 2.12.1 amended by GNR.304 of 1972 and repealed by GNR.446 of 2011.]

**2.12.2** .....

[Reg. 2.12.2 substituted by GNR.2706 of 1990 and repealed by GNR.446 of 2011.]

**2.12.3** .....

[Reg. 2.12.3 amended by GNR.3083 of 1991 and by GNR.94 of 1997 and repealed by GNR.446 of 2011.]

**2.12.4 .....**

[Reg. 2.12.4 amended by GNR.2703 of 1981 and repealed by GNR.446 of 2011.]

**2.12.5 .....**

[Reg. 2.12.5 substituted by GNR.2706 of 1990, amended by GNR.3083 of 1991 and by GNR.94 of 1997 and repealed by GNR.446 of 2011.]

**2.12.6 .....**

[Reg. 2.12.6 amended by GNR.3083 of 1991 and by GNR.94 of 1997 and repealed by GNR.446 of 2011.]

**2.12.7 .....**

[Reg. 2.12.7 repealed by GNR.446 of 2011.]

**2.12.8 .....**

[Reg. 2.12.8 amended by GNR.304 of 1972, substituted by GNR.2706 of 1990 and repealed by GNR.446 of 2011.]

**2.12.9 .....**

[Reg. 2.12.9 amended by GNR.304 of 1972 and repealed by GNR.446 of 2011.]

**2.12.10 ...**

[Reg. 2.12.10 deleted by GNR.1352 of 1988.]

**2.12.11 .....**

[Reg. 2.12.11 amended by GNR.3083 of 1991 and by GNR.94 of 1997 and repealed by GNR.446 of 2011.]

**2.12.12 .....**

[Reg. 2.12.12 repealed by GNR.446 of 2011.]

**2.13.1 At any mine or works where-**

- (a) the designed rating of machinery used in the generation of power, together with the power supplied from outside sources, exceed the equivalent of 2 500 kilowatts; or

[Para. (a) amended by GNR.303 of 1972.]

- (b) any winding plant intended for the conveyance of persons is installed, all machinery shall, subject to regulation 2.13.6.1, be under the general charge of an engineer who shall be appointed in writing by the manager.

[Para. (b) amended by GNR.3083 of 1991.]

[Reg. 2.13.1 amended by GNR.303 of 1972, by GNR.2703 of 1981, by GNR.1352 of 1988, substituted by GN.160 of 1991 and amended by GNR.3083 of 1991.]

**2.13.2** At every mine or works where the designed rating of machinery used in the generation of power, together with the power supplied from outside sources, do not exceed the equivalent of 2 500 kilowatts, all machinery shall be under the charge of a competent person or persons, who shall be appointed by the manager, to the extent defined in every such person's letter of appointment: Provided that an engineer may be appointed in terms of this regulation to be in general charge of such machinery.

[Reg. 2.13.2 amended by GNR.303 of 1972, by GNR.304 of 1972, substituted by GNR.2703 of 1981, by GN 160 of 1991 and by GNR.3083 of 1991.]

**2.13.3.1** To assist the engineer referred to in regulation 2.13.1 the manager may appoint one or more subordinate engineers, who shall-

- (a) subject to regulation 2.13.6.1, be a certificated engineer;
- (b) be responsible, either directly or through a subordinate engineer appointed in terms of regulation 2.13.3.2, to the engineer in general charge;
- (c) carry the responsibility assigned to him in his letter of appointment; and
- (d) not relieve the engineer referred to in regulations 2.13.1 or 2.13.3.2 of any responsibilities assigned to him in terms of these Regulations.

[Reg. 2.13.3.1 and 2.13.3.2 substituted for reg. 2.13.3 by GN.160 of 1991, Previously reg. 2.13.3 substituted by GNR.2703 of 1981 and amended by GNR.1352 of 1988.]

**2.13.3.2** The manager may appoint one or more subordinate engineers to assist the engineer in terms of regulation 2.13.1 in the direction and control of subordinate engineers appointed in terms of regulation 2.13.3.1 and such-

- (a) engineer shall at all times be a certificated engineer;
- (b) appointment shall not relieve the engineer appointed in terms of regulation 2.13.1 of any personal responsibility under the regulations.

[Reg. 2.13.3.1 and 2.13.3.2 substituted for reg. 2.13.3 by GN.160 of 1991, Previously reg. 2.13.3 substituted by GNR.2703 of 1981 and amended by GNR.1352 of 1988.]

**2.13.4.1** An engineer or competent person appointed in terms of regulation 2.13.2 shall-

- (a) subject to regulation 2.13.12, be responsible for the safe installation and the proper operation, running and maintenance of all machinery;
- (b) be responsible for the safe erection and proper maintenance of all buildings, structures and tanks;
- (c) take all reasonable measures to ensure that-
  - (i). all safety appliances, mechanisms and guards are maintained in good condition;

- (ii). the provisions of the regulations relating to machinery are fully complied with; and
- (iii). the working of any apparatus or machine, the using of which may constitute a danger to any person, is stopped.

[Reg. 2.13.4.1 and 2.13.4.2 substituted for reg. 2.13.4 by GNR.2703 of 1981. Reg. 2.13.4.1 substituted by GN.160 of 1991.]

**2.13.4.2** Where, in terms of these Regulations, a certificated engineer or competent person is required to be placed in charge of machinery, the appointment of such person shall not relieve the manager of any personal responsibility.

[Reg. 2.13.4.1 and 2.13.4.2 substituted for reg. 2.13.4 by GNR.2703 of 1981.]

**2.13.5** The Principal Inspector of Mines may require the appointment of an engineer, additional engineers or additional competent persons in charge of machinery where in his opinion the responsibilities relating to machinery at the mine or works render such appointment necessary.

[Reg. 2.13.5 substituted by GN.160 of 1991, amended by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.13.6.1** At a mine or works where an engineer is appointed or should be appointed in terms of regulation 2.13.1 and 2.13.3.1, work may be continued without such engineer for not more than 60 days in any period of six consecutive months: Provided that a competent person is appointed in writing by the manager to be in general charge of machinery during such period or part thereof.

[Reg. 2.13.6.1 and 2.13.6.2 substituted for reg. 2.13.6. by GN.160 of 1991. Previously reg. 2.13.6 substituted for regs. 2.13.6.1 and 2.13.6.2 by GNR.2703 of 1981 and amended by GNR.1352 of 1988.]

**2.13.6.2** The appointment of a competent person appointed in terms of regulation 2.13.6.1 may not result in an engineer being responsible either-

- (a) directly to such person; or
- (b) through such person to any other person.

[Reg. 2.13.6.1 and 2.13.6.2 substituted for reg. 2.13.6. by GN.160 of 1991. Previously reg. 2.13.6 substituted for regs. 2.13.6.1 and 2.13.6.2 by GNR.2703 of 1981 and amended by GNR.1352 of 1988.]

**2.13.7.1** A competent person appointed in terms of regulation 2.13.6.1 shall have all the duties and responsibilities of an engineer appointed under these Regulations.

[Reg. 2.13.7.1 and 2.13.7.2 substituted for reg. 2.13.7 by GN.160 of 1991. Previously reg. 2.13.7 amended by GNR.1352 of 1998.]

**2.13.7.2** The appointment of such competent person shall not relieve the engineer who preceded him of any personal responsibility under the regulations for the period during which he was in charge.

[Reg. 2.13.7.1 and 2.13.7.2 substituted for reg. 2.13.7 by GN.160 of 1991. Previously reg. 2.13.7 amended by GNR.1352 of 1998.]

**2.13.8** Any appointment of an engineer or competent person appointed under regulations 2.13.1 or 2.13.2, respectively, shall, within three days of the date thereof, be reported in writing to the Principal Inspector of Mines.

[Reg. 2.13.8 amended by GNR.1189 of 1979, substituted by GN.160 of 1991, amended by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.13.9** The engineer or competent person in charge of machinery at a mine or at a works shall not in addition be appointed in charge of any other machinery except with the written permission of the Principal Inspector of Mines.

[Reg. 2.13.9 amended by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.13.10** The manager of a mine or works shall not appoint himself as engineer or competent person in charge of machinery except with the written permission of the Principal Inspector of Mines.

[Reg. 2.13.10 amended by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.13.11 .....**

[Reg. 2.13.11 amended by GNR.1189 of 1979 and deleted by GNR.1352 of 1988.]

**2.13.12** Notwithstanding other provisions in these Regulations, any person or class of persons may be permitted in writing by the Principal Inspector of Mines, subject to such conditions as he may specify, to exercise control over-

- (a) the proper operation and running of machinery; and
- (b) the erection, re-erection, moving or removal of machinery not used for the conveyance of persons.

[Reg. 2.13.12 substituted by GNR.2703 of 1981, amended by GNR.1352 of 1988, substituted by GN.160 of 1991, amended by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.14.1** At every mine where the number of persons employed in the underground workings exceeds 300, the manager shall appoint one or more competent persons as mine overseers to assist him in the control, management and direction of the underground workings of the mine.

[Reg. 2.14.1 substituted by GNR.537 of 1980 and amended by GNR.1352 of 1988.]

**2.14.2** No such person shall be appointed unless he is the holder of a mine manager's or a mine overseer's certificate valid for the class of mine to which the mine belongs and issued in accordance with these Regulations.

**2.14.3** Every such mine overseer shall have all the duties and responsibilities of the manager so far as all workings of the mine or portion of the mine assigned to him are concerned: Provided that the appointment of such mine overseer or mine overseers shall not be taken to relieve the manager of any personal responsibility under the regulations.

[Reg. 2.14.3 substituted by GNR.2703 of 1981.]

**2.14.4** The workings of a mine or portion of a mine where a mine overseer has been, or is required to be, appointed in terms of regulation 2.14.1 may be worked without such mine overseer for a period of not more than 60 days in any period of six consecutive months. The manager shall appoint a competent person to act as mine overseer during such period of 60 days or portion thereof as the case may be. Such competent person shall be the holder of a permanent blasting certificate and shall have had not less than two years practical experience in the workings of a mine.

[Reg. 2.14.4 amended by GNR.2703 of 1981 and by GNR.1352 of 1988.]

**2.14.5** Such competent person shall have all the duties and responsibilities of a mine overseer under the regulations: Provided that the appointment of such person shall not be taken to relieve the mine overseer in charge before him of any personal responsibility under the regulations.

**2.14.6** Any appointment under these Regulations shall be made in writing and shall clearly define the portion of the mine assigned to the person so appointed and the extent of the control to be exercised by him in terms of regulation 2.13.12. A copy of the letter of appointment shall be immediately forwarded to the Principal Inspector of Mines.

[Reg. 2.14.6 amended by GNR.2703 of 1981, by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.15.1** The manager or subordinate manager of a mine may appoint one or more competent persons as shift bosses. Each shift boss shall during a shift be in charge of a section of the workings of the mine. The section to which each shift boss is appointed shall be clearly defined in writing in a book termed the Shift Boss' Logbook, provided for the purpose by the manager and kept in a place appointed by the manager. Where the number of persons employed in the workings exceeds 300, the appointment of a shift boss or shift bosses during each working shift shall be compulsory: Provided that the Principal Inspector of Mines may require the appointment of additional shift bosses if he considers it necessary in the interests of safety or *health*: Provided further that the Principal Inspector of Mines may, where the number of persons employed in the workings is 300 or less, require the appointment of a shift boss or shift bosses if he considers that the conditions prevailing make such appointment necessary.

[Reg. 2.15.1 substituted by GNR.1346 of 1972, amended by GNR.537 of 1980, by GNR.1352 of 1988, by GNR.3083 of 1991, by GNR.2103 of 1974 and by GNR.94 of 1997.]

**2.15.2** No person shall be appointed as a shift boss unless he is the holder of a permanent blasting certificate valid for the class of mine to which the mine belongs and issued in accordance with these Regulations or any amendments thereof.

[Reg. 2.15.2 substituted by GNR.1346 of 1972.]

**2.15.3** In no case shall a shift boss be placed in control of a section larger than he is able to control efficiently in accordance with the requirements of the regulations. The manager shall not impose such additional duties of a shift boss as will prevent him from carrying out his statutory duties efficiently.

[Reg. 2.15.3 substituted by GNR.1346 of 1972 and by GNR.513 of 1977.]

**2.15.4** Each shift boss shall take reasonable precautions to ensure proper observance of the regulations and compliance with any lawful order given in the interest of safety or *health*, by every person employed in his section and shall as soon as practicable report to the manager or mine overseer any contravention thereof.

[Reg. 2.15.4 substituted by GNR.1346 of 1972.]

**2.15.5** Each shift boss shall inspect all workings in his section as frequently as he may deem it necessary in the interest of safety and *health*: Provided that-

- he shall inspect every working face in his section which has been blasted and in which persons are working within two working days of each blast therein;

[Para. (a) substituted by GNR.537 of 1980.]

- (b) he shall inspect all other workings at least once every week at intervals not exceeding 10 days; and
- (c) he shall daily during his shift-
  - (i). inspect at least one working of each ganger or miner under his charge who is directly concerned with current blasting operations, and
  - (ii). satisfy himself by consultation with each ganger or miner, or by personal inspection, that work is proceeding safely and in accordance with the regulations in every working of such ganger or miner. Each such consultation shall take place within the area for which such ganger or miner is responsible.
  - (iii). in every coal mine, unless exempted in writing by the Principal Inspector of Mines, carry out a test for inflammable gas similar to the test required in terms of regulation 8.9.9, of every part of every ganger's or miner's section in which workmen work or travel or may be required to work or travel during that shift. The shift boss shall record a report on each such test at the end of his shift in the logbook referred to in regulation 2.15.6. For the purpose of this regulation 'blasting operations' also means the actual breaking of mineral or rock on the previous working shift by means of explosives and includes the removal of such broken mineral or rock and the operation of making safe.

[Subpara. (iii) amended by GNR.3083 of 1991 and GNR.94 of 1997.]

For the purpose of this registration 'blasting operations' also means the actual breaking of mineral or rock on the previous working shift by means of explosives and includes the removal of such broken mineral or rock and the operation of making safe.

**2.15.6** Each shift boss shall, during or at the conclusion of his shift, record in ink in his logbook-

- (a) the designation of every *working place* and other workings inspected by him during his shift;
- (b) particulars of any unsatisfactory condition of working places, travelling ways or other workings in his section as found by him or reported to him by a ganger or miner or any other person, especially as regards ventilation and dust, the presence of harmful gases, the state of the hanging wall, footwall and sides, sanitation and generally so far as safety and *health* of persons are concerned;

[Para. (b) amended by GNR.2103 of 1974.]

- (c) such breaches of regulations and non-compliance with instructions given in the interests of safety and *health* of which he has become aware during his shift; and
- (d) any instructions given by him for securing the safety and *health* of workmen or for the proper observance of the regulations.

[Reg. 2.15.6 substituted by GNR.1346 of 1972. Para. (d) amended by GNR.2103 of 1974.]

**2.15.7** Such records shall be examined and countersigned by the manager or the mine overseer at least once every day and shall be open to inspection at all reasonable hours by any person employed in the workings of the said mine.

[Reg. 2.15.7 substituted by GNR.1346 of 1972]

**2.15.8** A shift boss shall not take charge of a gang of workmen in addition to his normal duties, except temporarily in case of necessity. For the purposes of this regulation 'case of necessity' means a condition of circumstances of a temporary nature in the interest of safety.

[Reg. 2.15.8 substituted by GNR.1346 of 1972 and amended by GNR.513 of 1977.]

**2.15.9** Where blasting takes place at the end of a shift, a shift boss or other official of at least equal rank shall be present underground or on surface at each main travelling shaft or main travelling adit at blasting time and he shall report daily in the logbook on the compliance with regulation 2.10.9 and whether any person was exposed to dust or fumes from blasting.

[Reg. 2.15.9 substituted by GNR.1346 of 1972.]

**2.15.10** The appointment of any shift boss shall not be taken to relieve the manager, the subordinate manager or the mine overseer of any personal responsibility under these Regulations.

[Reg. 2.15.10 substituted by GNR.1346 of 1972.]

**2.15.11** The manager, the subordinate manager or the mine overseer shall not assume the duties of a shift boss except with the written permission of the regional director .

[Reg. 2.15.11 substituted by GNR.1346 of 1972.]

### **Environmental control officers to be appointed**

**2.16.1** .....

[Reg. 2.16.1 amended by GNR367 of 1987, by GNR.1339 of 1990, by GN R530 of 1995 and by GN R94 of 1997 and repealed by GNR.904 of 2002.]

**2.16.2 .....**

[Reg. 2.16.2 substituted by GNR.537 of 1980, by GNR.367 of 1987 and by R1339 of 1990, amended by GN R530 of 1995 and repealed by GNR.904 of 2002.]

**2.16.3 .....**

[Reg. 2.16.3 substituted by GNR.537 of 1980 and by GNR.367 of 1987, amended by GN R530 of 1995 and repealed by GN R904 of 2002.]

**2.16.4 .....**

[Reg. 2.16.4 repealed by GN R367 of 27 February 1987.]

**2.17.1** The manager of a mine or works may in writing appoint one or more persons as safety officers for the mine or works: Provided that-

- (a) if the number of employees at any mine or works exceeds 300, the manager of that mine or works shall so appoint at least one person as a safety officer for that mine or works.
- (b) if the Principal Inspector of Mines considers it necessary in the interest of safety at any mine or works, he may in writing direct the manager of that mine or works to appoint a safety officer or additional safety officers at that mine or works:

Provided further that such safety officer devotes all his time to the functions assigned to a safety officer by or under these Regulations.

[Reg. 2.17.1 added GNR.1889 of 1988. Para. (b) amended by GNR.3083 of 1991 and GNR94 of 1997.]

**2.17.2** No person shall be appointed as a safety officer unless he is-

- (a) by virtue of his training, knowledge and experience, able to identify any threat to the safety or *health* of persons employed in or at the mine or works in question; and
- (b) conversant with the applicable requirements relating to the safety and *health* of employees, whether or not those requirements have the force of law.

[Reg. 2.17.2 added by GN R1889 of 1988.]

**2.17.3** The manager of a mine or works shall within five days after the date of appointment of any person as a safety officer notify the Principal Inspector of Mines, in writing of the appointment, and the notice shall be accompanied by-

- (a) a copy of the letter of appointment of the safety officer; and
- (b) particulars regarding the training, knowledge and experience of the safety officer.

[Reg. 2.17.3 added by GNR.1889 of 1988, amended by GNR.3083 of 1991 and by GNR.94 of 1997.]

**2.17.4 When-**

- (a) two or more safety officers have been appointed at a mine or works, the manager of the mine or works shall designate at least one of those safety officers as chief safety officer; or
- (b) only one safety officer has been appointed at a mine or works, that safety officer shall, in addition to the functions he is required or permitted to perform as a safety officer by or under these Regulations, be invested and charged with the functions assigned to a chief safety officer by or under the regulations.

[Reg. 2.17.4 added by GNR.1889 of 1988.]

**2.17.5** The appointment of a safety officer or the designation of a chief safety officer shall not be taken to relieve any other person of any personal responsibility in terms of these Regulations.

[Reg. 2.17.5 added by GNR.1889 of 1988.]

**2.17.6** Operations at a mine or works where a safety officer has been appointed in terms of regulation 2.17.1 may be continued without such safety officer for a period of not more than 60 days in any period of six consecutive months providing that the manager shall appoint a competent person to act as safety officer during such period of 60 days or portion thereof.

[Reg. 2.17.6 added by GNR.2062 of 1991.]

**2.17.7** The competent person referred to in regulation 2.17.6 shall have all the duties and responsibilities of a safety officer under the regulations: Provided that the appointment of such a person shall not relieve the safety officer appointed in terms of regulation 2.17.1 of any responsibility under the regulations.

[Reg. 2.17.7 added by GNR.2062 of 1991.]

**2.18.1** The manager of a mine or works shall in respect of each *working place* or group of working places, determined by him for the purpose of these Regulations, appoint in writing one or more employees who are acquainted with the conditions at such *working place* or group of working places as safety representative for such period as may be determined by him.

[Reg. 2.18.1 added by GN R1889 of 1988.]

**2.18.2** For the purpose of regulation 2.18.1, working places may be grouped together only when the number of persons employed in or at a group of working places does not exceed 50.

[Reg. 2.18.2 added by GN R1889 of 1988.]

**2.18.3** A safety representative shall have training in and knowledge and experience of the application of the safety and *health* requirements applicable to, and be conversant with the conditions at, the *working place* or group of working places where he is to be appointed.

[Reg. 2.18.3 added by GN R1889 of 1988.]

**2.19.1** Every safety officer shall-

(a) at an interval prescribed by these Regulations or at such intervals as the chief safety officer or Principal Inspector of Mines may determine, inspect working places or machinery for which he has been appointed in or at the mine or works or part thereof in question;

[Para. (a) amended by GNR.94 of 1997.]

- (b) in the course of any such inspection satisfy himself in particular that-
- (i). all reasonable safety and *health* measures have been taken in respect of the use or handling of machines and the performance of other work;
  - (ii). safety equipment is maintained in good condition and properly utilised;
  - (iii). the applicable requirements relating to the safety and *health* of employees, whether or not those requirements have the force of law, have been or are being complied with; and
  - (iv). all employees have been properly trained or possess the necessary training or qualifications for the safe execution of their work;
- (c) report any threat or potential threat to the safety or *health* of any employee to the person in immediate charge of the *working place* or machinery in question;
- (d) if the person in immediate charge is not readily available, take the necessary steps to avert any such immediate threat and report such matter as soon as practicable, but not later than the end of his shift, to an official responsible for that *working place* or machinery;
- (e) at the end of his shift enter in ink in a book provided by the manager for that purpose and kept at a place designated by the manager-
- (i). a description of the working places or machinery inspected by him during the shift in question;

- (ii). the conditions or circumstances at such working places or machinery, including any failure to comply with the applicable requirements referred to in paragraph (b);
  - (iii). any report made by him in terms of paragraph (c) or (d) including the name of the person to whom such report was made; and
  - (iv). any steps which have already been taken or which in his opinion ought to be taken in order to avert any threat or potential threat to the safety or *health* of any *employee*;
- (f) subject to the provisions of Chapter 25 of the regulations, investigate and report in writing to the chief safety officer on any accident or occurrence mentioned in regulation 25.1 (c), (d) and (e) or regulation 25.6 and directed to him by the chief safety officer; and
  - (g) investigate and report in writing to the chief safety officer on any other accident or occurrence, not mentioned in regulation 25.1 or 25.6, for which an investigation is deemed necessary by the chief safety officer, and directed to him by the chief safety officer for investigation.

[Reg. 2.19.1 added by GNR.1889 of 1988.]

**2.19.2 Any safety officer may-**

- (a) hold meetings with the *safety representatives* of the mine or works or part thereof for which he has been appointed at such times and places as he may with the manager of the mine or works: Provided that such meetings shall be held at least once in every three months;
- (b) after he has conducted an investigation referred to in paragraph (f) of regulation 2.19.1, submit to the manager for transmission to the Principal Inspector of Mines, a copy of his report; and

[Para. (b) amended by GN R94 of 1997.]

- (c) make recommendations for submission by the manager to the Principal Inspector of Mines, regarding any matter relating to the safety or *health* of persons employed in or at the mine or works in question.

[Reg. 2.19.2 added by GNR.1889 of 1988 and Para. (c) amended by GNR.94 of 1997.]

**2.19.3 A chief safety officer shall-**

- (a) as soon as may be practicable, direct every accident or occurrence mentioned in regulation 25.1 (c), (d) and (e) or 25.6 to a safety officer for investigation;
- (b) within three days after the date on which an inquiry has been conducted in terms of paragraph (f) of regulation 2.19.1, transmit a copy of the report on the relevant accident or occurrence to the manager;

- (c) if the Principal Inspector of Mines so requests, furnish any such copy to the director [sic] concerned;

[Para. (c) amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

- (d) record every accident in which any *employee* has been injured or has become ill to such a degree that it resulted in the loss of at least one shift;
- (e) identify working places and machinery which in his opinion may represent critical areas regarding safety and *health*;
- (f) satisfy himself-
- (i). that the applicable requirements relating to the safety and *health* of employees, whether or not those requirements have the force of law, also provide sufficient protection to employees in or at working places or machinery referred to in paragraph (e); and
  - (ii). that all employees are properly trained regarding the applicable requirements;
- (g) ensure that a safety officer-
- (i). inspects working places and machinery referred to in paragraph (e) at such interval as the chief safety officer, or Principal Inspector of Mines may determine, which interval shall not exceed 30 days;

[Subpara. (i) amended by GN R3083 of 20 December 1991 and by GN R94 of 1997.]

- (ii). inspects at intervals not exceeding 45 days any underground *working place* in which mineral production takes place and machinery which is used underground for mineral production, other than a *working place* or machinery referred to in subparagraph (i); and
  - (iii). inspects any *working place* and machinery, other than a *working place* or machinery referred to in subparagraph (i) or (ii), at intervals not exceeding 90 days;
- (h) examine and countersign the entries made in the book referred to in paragraph (e) of regulation 2.19.1 not later than the first working day following the day on which such entries were made;
- (i) report forthwith to the mine overseer, engineer or other person in charge of the *working place* or machinery in question any matter contained in such book and requiring in his opinion the immediate attention of such mine overseer, engineer or person;
- (j) within 15 days of the end of each month transmit a written report to the manager specifying-
- (i). the number of accidents and occurrences which took place during the month in question;
  - (ii). the basic causes of such accidents and occurrences;
  - (iii). any failure to comply with the applicable requirements referred to in paragraph (f);

- (iv). any threat or potential threat to the safety or *health* of persons employed in or at the mine, works or machinery in question; and
  - (v). any steps which have already been taken or which in his opinion ought to be taken in order to avert any such threat or potential threat; and
- (k) hold a meeting with all safety officers under his control at least once in every three months: Provided that the Principal Inspector of Mines may direct the manager in writing to instruct the chief safety officer to hold a meeting within a period specified by the Principal Inspector of Mines, and such meeting may be with all the safety officers under his control or those safety officers specified by such Principal Inspector of Mines.

[Para. (k) amended by GN R3083 of 1991 and by GN R94 of 1997.]

[Reg. 2.19.3 added by GN R1889 of 1988.]

**2.19.4** A chief safety officer may perform any function assigned to a safety officer by or under these Regulations.

[Reg. 2.19.4 added by GN R1889 of 1988.]

**2.19.5** A safety representative shall forthwith report to the person in control of the *working place* or machinery in respect of which the safety representative has been appointed any threat or potential threat to the safety or *health* of any *employee* at that *working place* or machinery which has been identified by him or reported to him.

[Reg. 2.19.5 added by GN R1889 of 1988.]

**2.19.6.1** When a safety officer inspects a *working place* or machinery in respect of which a safety representative has been appointed, the safety representative may accompany him.

[Reg. 2.19.6.1 added by GN R1889 of 1988.]

**2.19.6.2** If a safety representative accompanies a safety officer, he shall bring to the attention of the safety officer any threat or potential threat to the safety of any *employee* at the *working place* or machinery in question which has been identified by him or reported to him.

[Reg. 2.19.6.2 added by GN R1889 of 1988.]

**2.19.7** A safety representative shall perform the functions assigned to him by these Regulations during his ordinary working hours, and any time reasonably spent by him in the performance of the said functions shall for all purposes be deemed to be time spent by him in the carrying out of his duties as an *employee*.

[Reg. 2.19.7 added by GN R1889 of 1988.]

## CHAPTER 3

### GENERAL PROVISIONS

- 3.1.1** No unauthorised person shall enter a mine or works or any shaft or place or building where machinery has been erected.
- 3.1.2** Notice to the effect that no unauthorised person shall enter a mine or works or any shaft or place or building where machinery has been erected shall be posted up by the manager at all entrances to such places.
- 3.2** For the purpose of making known the provisions of these Regulations to all persons employed in and about a mine or works, an abstract, authorised by the *Chief Inspector*, of the portions of these Regulations, directly concerning the workmen, shall be posted up in suitable places at the mine or works, where it can be conveniently read, and a correct copy of these Regulations or of such abstract shall be supplied at cost price to every *employee*, except to the illiterate persons contemplated in regulation 3.9, when engaged by the manager or his representative unless he is already in possession of the same. Every abstract posted up shall be in both official languages and in such other language as the *Chief Inspector* may prescribe.

[Reg. 3.2 amended by GN R94 of 1997.]

- 3.3** Every permission or a copy thereof granted by the *Chief Inspector* under section 9 of the Mines and Works Act shall be posted up in a suitable place at the mine or works.

[Reg. 3.3 amended by GN R94 of 1997.]

- 3.4** Every regulation relating to the prevention of a compensatable disease as defined in section 1(1) of the Occupational Diseases in Mines and Works Act, 1973 (Act 78 of 1973) shall, in so far as it concerns persons not proficient in any one of the official languages, be translated into such other language as the manager may determine and kept posted up at suitable places at the mine or works.

[Reg. 3.4 amended by GN R537 of 1980 and by GN R1352 of 8 July 1988.]

- 3.5** One or more notices on which are legibly printed simple directions setting forth the approved procedure for the immediate treatment of cases of 'gassing', 'heat stroke', 'heat exhaustion', 'drowning' and 'electric shock', shall be posted up in a conspicuous place in every change-house and accident emergency station.

**3.6** Notices shall be exhibited at suitable places within every electric generating station and substation-

- (a) prohibiting any unauthorised person from handling or interfering with electrical apparatus;
- (b) giving directions as to the procedure in case of fire; and
- (c) giving directions as to the treatment of persons suffering from effects of electric shock.

**3.7** A notice shall be kept posted up at each shafthead showing the times within which shifts are lowered or raised at such shafthead, as well as the times of blasting in the various sections of the mine. A clock showing the time to be observed on the mine shall be installed at each main entrance to the workings.

**3.8.1** So often as any posted notice or copy thereof becomes defaced, obliterated or destroyed it shall be renewed with all reasonable despatch.

**3.8.2** No unauthorised person shall remove or deface any of the before-mentioned notices or copies thereof.

**3.9** Where any workman is unable to read the regulations, the person in charge shall see that such workman is made acquainted with the regulations concerning him or appertaining to his particular occupation and duties.

[Reg. 3.9 amended by GN R1352 of 8 July 1988.]

**3.10** No person shall be precluded by any agreement from doing, or be liable under any contract in damages for doing, such acts as may be necessary in order to comply with the provisions of these Regulations.

**3.11** Any person through whose neglect, wrongful act or omission a contravention of any regulation shall occur or who permits, incites, instigates, commands or procures any person to contravene any regulation shall be deemed to be guilty of such contravention, without prejudice to any responsibility or liability on the part of the manager or any other person.

**3.12** Any person who fails to obey any order given to him in accordance with or for the proper observance of the requirements of these Regulations, or any order whatsoever given in the interests of safety or *health*, by any person lawfully authorised to give such order, shall be guilty of a contravention of these Regulations.

**3.13** No person shall depute any other person to do his work without the sanction of his official superior; nor shall any person, without such sanction, cease to supervise persons under his charge.

## **Safety precautions or measures relating to the management of the environment not to be damaged or removed**

[Heading substituted by GN R31 of 1995.]

### **3.14 No person shall-**

[Reg. 3.14 substituted by GN 160 of 1991.]

- (a) interfere with or render ineffective anything which has been provided for the protection, safety and *health* of persons; or
- (b) alter, remove, or in any way interfere with or render ineffective or disregard any arrangement provided for the purposes referred to in paragraph (a) unless duly authorised thereto in writing by the manager, mine overseer or engineer: Provided that in the case of a mine which is closed down, such authorisation shall be obtained from the Principal Inspector of Mines; or

[Para. (b) amended by GN R94 of 1997.]

- (c) alter, remove or in any way interfere with or render ineffective or disregard any measure relating to rehabilitation or to the management of the environment at a mine, unless duly authorised thereto in writing by the holder of the prospecting permit or mining authorisation or the owner or manager of that mine: Provided that in the case of a mine which is closed down, such authorisation shall be obtained in writing from the Principal Inspector of Mines.

[Para. (c) inserted by GN R31 of 1995 and amended by GN R94 of 1997.]

### **3.15.1 When the circumstances at mines and works in general or at any specific mine or works are such that any provision of any regulation cannot be applied or are unduly onerous to a mine or works or whenever it is necessary for the purpose of carrying out experiments or tests as to the expediency of any regulation or proposed regulation, the *Chief Inspector* and any Principal Inspector of Mines may grant exemption from any provision of any regulation administered by him under such conditions as he may determine: Provided that any exemption from any regulation in respect of safety, *health* and related matters at any mine or works shall be granted after consultation with and under the direction of the Deputy *Chief Inspector* referred to in section 2(2) of the Act.**

[Reg. 3.15.1 amended by GN R1189 of 1979, by GN R3083 of 1991 and by GN R94 of 1997.]

#### **3.15.1.1 Any application for exemption shall be properly substantiated and submitted in writing to the Principal Inspector of Mines.**

[Reg. 3.15.1.1 inserted by GN 160 of 1991 and amended by GN R94 of 1997.]

**3.15.2** The *Chief Inspector* or any Principal Inspector of Mines may withdraw such exemption if considered necessary in the interests of safety and *health*.

[Reg. 3.15.2 amended by GN R1189 of 1979, by GN R3083 of 1991 and by GN R94 of 1997.]

**3.16.1** The Principal Inspector of Mines may direct that any regulation applicable to a mine or to any particular class of mine shall be applied to any other mine or any works or part thereof by giving written notice to that effect to the manager, with specific reference to the regulation concerned, whereafter such regulation shall apply to such mine or works or part thereof.

[Reg. 3.16.1 amended by GN R1339 of 1990, by GN R3083 of 1991 and by GN R94 of 1997.]

**3.16.2** The manager shall keep legible copies of the notice in both official languages posted up at suitable places at the mine or works where they can be conveniently read by the workmen.

[Reg. 3.16.2 amended by GN R1339 of 1990, and by GN R3083 of 1991.]

**3.17** The Principal Inspector of Mines may direct that any regulation applicable to a shaft shall be applied to a winze, by giving written notice to that effect to the manager, with specific reference to the regulation concerned whereafter such regulation shall apply to such winze.

[Reg. 3.17 amended by GN 160 of 1991, by GN R3083 of 1991 and by GN R94 of 1997.]

**3.18.1** The Principal Inspector of Mines may declare any mine to be a fiery mine by reason of the danger from flammable gas in the mine. Such declaration shall be by written notice to the manager.

[Reg. 3.18.1 amended by GN R94 of 1997.]

**3.18.2 ...**

[Reg. 3.18.2 deleted by GN R1339 of 1990.]

**3.19 ...**

[Reg. 3.19 amended by GN R3083 of 1991 and by GN R94 of 1997 and repealed by GN 1278 of 2006.]

**3.20 ...**

[Reg. 3.20 deleted by GN R1339 of 1990 and amended by GN 160 of 1991.]

**3.21** When the Director-General or the regional director [sic] is empowered to grant exemption from the provisions of these Regulations or to grant permission and approval in terms of any regulation, he may impose such conditions as he may deem necessary.

[Reg. 3.21 amended by GN R1189 of 1979, by GN 160 of 1991 and by GN R3083 of 1991.]

**3.22 ...**

[Reg. 3.22 deleted by GN R1352 of 1988.]

## **CHAPTER 4**

### **WORKMEN**

**4.1.1** At the end of the shift, every person on that shift shall be brought to the surface as soon as possible, and shall not be kept waiting unnecessarily at the shaft stations or elsewhere.

**4.1.2** The manager, mine overseer, shift boss or other person appointed by the manager for the purpose, shall take all reasonable steps to satisfy himself that no unauthorised person remains underground after the hoisting or return to surface of persons employed on that shift is concluded and shall record in a book to be provided by the manager the name or other means of identification of any such person remaining underground and the time when such person reached the surface of the mine.

**4.2 ...**

[Reg. 4.2 repealed by GN R904 of 2002.]

**4.3.1 ...**

[Reg. 4.3.1 amended by GN R1352 of 1988, substituted by GN R1263 of 1991 and repealed by GN R904 of 2002.]

**4.3.2 ...**

[Reg. 4.3.2 amended by GN R1352 of 1988 and repealed by GN R904 of 2002.]

**4.3.3 and 4.3.4 ...**

[Regs. 4.3.3 and 4.3.4 inserted by GN R1352 of 1988 and repealed by GN R904 of 2002.]

**4.4.1** The manager shall provide a record book at each changehouse in which somebody may enter a complaint in connection with safety or *health* and such record book shall be inspected and initialled daily by a competent person appointed by the manager for this purpose, and at least once a month by the manager or his delegate: Provided that such delegate shall be somebody appointed in terms of regulations 2.6.1, 2.13.1, 2.13.2 and 2.13.3.

[Reg. 4.4.1 amended by GN R1352 of 1988 and substituted by GN R2062 of 1991.]

**4.4.2** Any defect in the water service or dust allaying devices or in any appliances provided for the *health* or safety of persons at the mine or works shall be recorded in the record book by the *employee* having knowledge of such defect immediately on coming off shift.

**4.4.3** Any person who has knowledge of dust or fumes at the mine or works during working hours or of defective ventilation or of any other condition prejudicial to *health* and safety shall similarly record the matter without delay in the record book.

**4.4.4** A verbal report of any such defect or defective condition shall be made to a shift boss or other official as soon as possible and especially in the case of immediate necessity. Such verbal report shall not be deemed sufficient notice of such defect or such condition but shall be recorded in the record book.

**4.4.5** No person shall tamper with or damage the record book.

**4.4.6** A legible copy of regulations 4.4.1, 4.4.2, 4.4.3, 4.4.4 and 4.4.5 in both official languages shall be kept posted up in a place near where the record book is kept.

**4.5** The manager shall provide and maintain a system whereby the attendance of all workmen is recorded daily.

[Reg. 4.5 substituted by GN R1352 of 1988.]

**4.6** No wages shall be paid at or within any hotel, bar, canteen, or place where spirituous or fermented liquor is sold, to any person employed in or about a mine or works.

**4.7.1** No person in a state of intoxication or in any other condition which may render or be likely to render him incapable of taking care of himself or of persons under his charge, shall be allowed to enter the workings of a mine or be in the proximity of any *working place* or near any machinery on the surface of a mine or at a works, and any person who may have entered the workings of a mine or who is found in the proximity of any workings or near any machinery on the surface of a mine or at any works in a state of intoxication may be arrested immediately by the manager or some person duly appointed by him and immediately handed over to the police, and shall be deemed to be guilty of an offence under these Regulations.

**4.7.2** No intoxicating liquor shall be taken by any person into the workings of any mine or to any place of work on the surface of a mine or at a works unless with the special permission of the manager, and no workman shall have intoxicating liquor in his possession while at work or at any place of work.

**4.8 ...**

[Reg. 4.8 amended by GN R1352 of 8 July 1988, substituted by GN R1263 of 7 June 1991 and repealed by GN R904 of 2 July 2002.]

**4.9 ...**

[Reg 4.9 amended by GN R1352 of 8 July 1988, by GN R1263 of 7 June 1991 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**4.10** Every waiting place required in terms of regulation 2.10.6 shall be adequately disinfected and kept in a clean condition.

**4.11** No person shall pollute the workings with faeces or urine, nor wantonly misuse or foul any latrine.

**4.12** No effluent from any sewerage system shall contain any injurious matter in suspension or solution.

**4.13 ...**

[Reg. 4.13 deleted by GN R1352 of 8 July 1988.]

**4.14.1** Except as provided for in regulation 4.14.2 no *employee* shall work, or be caused or permitted to work, in or at a mine for more than 48 hours in any consecutive seven days, exclusive of the time taken in getting to and from the place where work is performed: Provided that any time taken in excess of 60 minutes by persons employed underground in order to cover the distance from the shafthead or other entrance to the mine to their *working place* and back again, shall for the purposes of this regulation, be deemed to be time worked.

[Reg. 4.14.1 substituted by GN R305 of 1 March 1972 and amended by GN R1352 of 8 July 1988.]

**4.14.2** The provisions of regulation 4.14.1 shall not apply-

- (a) to work necessitated by accident or other emergency; or
- (b) to work, other than risk work, as defined in the Occupational Diseases in Mines and Works Act, 1973 (Act 78 of 1973); or

[Para. (b) substituted by GN R537 of 1980.]

- (c) to risk work on surface, as defined in the Occupational Diseases in Mines and Works Act, 1973, permitted by the Principal Inspector of Mines; or

[Para. (c) amended by GN R537 of 1980 and by GN R94 of 1997.]

- (d) to the work of any class of *employee* exempted therefrom by the Principal Inspector of Mines for the reason that such work is performed for the purpose of maintaining safety and *health* or of transporting persons to or from their working places underground in the mine.

[Para. (d) amended by GN R94 of 1997.]

[Reg. 4.14.2 substituted by GN R305 of 1972.]

**4.14.3** No *employee* or class of *employee* whose work has been exempted under paragraph (b), (c) or (d) of regulation 4.14.2 shall work for a period exceeding in the aggregate 12 hours in any consecutive seven days in addition to the hours specified in regulation 4.14.1, except in special cases of emergency permitted by the Principal Inspector of Mines.

[Reg. 4.14.3 substituted by GN R305 of 1 March 1972, amended by GN R367 of 27 February 1987 and by GN R94 of 15 January 1997.]

**4.14.4** Every application for permission or exemption under regulation 4.14.2 or 4.14.3 shall be submitted by the manager to the Regional Director, [sic] which Regional Director may impose such restrictions and conditions as he may deem necessary.

[Reg. 4.14.4 substituted by GN R305 of 1 March 1972 and amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**4.15** No *employee* shall work, or be caused or permitted to work, two or more shifts at any mine during any continuous period of 24 hours: Provided that this restriction shall not apply-

- (a) to work necessitated by accident or other emergency; or
- (b) to such repair work to equipment or such service as cannot be delayed without causing serious interruption of the operation of the mine; or

- (c) to a shiftworker when he changes over shift times or where the shiftworker for the succeeding shift fails to arrive and a replacement is not immediately available; or
- (d) in other cases of necessity permitted by the Principal Inspector of Mines and specified in writing to the manager of the mine.

[Para. (d) amended by GN R94 of 15 January 1997.]

[Reg. 4.15 substituted by GN R305 of 1 March 1972.]

**4.16.1** At every mine the manager shall at all times keep a record, in a form acceptable to the Principal Inspector of Mines, showing in respect of each *employee*–

- (a) name and residential address;

[Para. (a) amended by GN R1352 of 8 July 1988.]

- (b) occupation;
- (c) total number of ordinary hours and overtime worked each day and each month;
- (d) the normal rate of remuneration and the actual remuneration paid from time to time and the date of every such payment; and
- (e) such other particulars as may be prescribed by the Principal Inspector of Mines: Provided that the requirements of paragraphs (c) and (d) shall not apply to any official appointed as such in writing by the manager.

[Para. (e) amended by GN R94 of 15 January 1997.]

[Reg. 4.16.1 substituted by GN R305 of 1 March 1972 and amended by GN R94 of 15 January 1997]

**4.16.2** The manager shall retain any record made in terms of this regulation for a period of one year subsequent to the date of the record and shall on demand by the Principal Inspector of Mines made at any time during the said period of one year produce such record for inspection.

[Reg. 4.16.2 amended by GN R94 of 15 January 1997.]

**4.16.3** Every person employed in or at a mine or works shall furnish the manager with his residential address and shall forthwith notify the manager of any change in such address.

[Reg. 4.16.3 added by GN R1352 of 8 July 1988.]

**4.17.1** When the equivalent noise exposure, as defined in the South African Bureau of Standards' Code of Practice for the Measurement and Assessment of Occupational Noise for Hearing Conservation Purposes, SABS 083 as amended, in any place at or in any mine or works where persons may travel or work, exceeds 85dB (A), the manager shall take the necessary steps to reduce the noise to below this level.

[Reg. 4.17.1 added by GN R1130 of 2 June 1989.]

**4.17.2** Where compliance with regulation 4.17.1 is not possible, the manager shall implement a hearing conservation programme which complies with the recommendations given in the said SABS 083.

[Reg. 4.17.2 added by GN R1130 of 2 June 1989]

**4.17.3** Any personal protective equipment that may be necessary in terms of a hearing conservation programme, as contemplated in regulation 4.17.2, shall be supplied free of charge by the manager.

[Reg. 4.17.3 added by GN R1130 of 2 June 1989.]

**4.17.4** No person shall damage, discard or render ineffective any equipment provided to him in terms of regulation 4.17.3.

[Reg. 4.17.4 added by GN R1130 of 2 June 1989.]

## **CHAPTER 5**

### **SURFACE PROTECTION, THE MAKING SAFE OF UNDERMINED GROUND AND THE PREVENTION OF POLLUTION**

[Heading to Chapter 5 amended by GN R2923 of 10 December 1990.]

[Chapter 5 amended by GN R94 of 15 January 1997 and by GN R847 of 21 June 1997.]

**5.1.1 and 5.1.2 ...**

[Regs 5.1.1 and 5.1.2 repealed by GN R1323 of 12 November 2004.]

**5.2 ...**

[Reg. 5.2 repealed by GN R1323 of 12 November 2004.]

**5.3.1 ...**

[Reg. 5.3.1 amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997 and repealed by GN R1305 of 12 November 2004.]

**5.3.2 ...**

[Reg. 5.3.2 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R1305 of 12 November 2004.]

**5.3.3 ...**

[Reg. 5.3.3 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R1323 of 12 November 2004.]

**5.3.4 ...**

[Reg. 5.3.4 amended by GN R94 of 15 January 1997 and repealed by GN R1323 of 12 November 2004.]

**5.3.5 ...**

[Reg. 5.3.5 amended by GN R303 of 1 March 1972, by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R1305 of 12 November 2004.]

**Subsidence levelling stations and levelling control**

**5.3.6.1 ...**

[Reg. 5.3.6.1 inserted by GN R2706 of 23 November 1990 and repealed by GN R1305 of 12 November 2004.]

**5.3.6.2 ...**

[Reg. 5.3.6.2 inserted by GN R2706 of 23 November 1990, amended by GN R94 of 15 January 1997 and repealed by GN R1305 of 12 November 2004.]

**5.3.6.3 to 5.3.6.5 inclusive ...**

[Regs 5.3.6.3 to 5.3.6.5 inclusive inserted by GN R2706 of 23 November 1990 and repealed by GN R1305 of 12 November 2004.]

**5.3.6.6 and 5.3.6.7 ...**

[Regs 5.3.6.6 and 5.3.6.7 inserted by GN R2706 of 23 November 1990, amended by GN R94 of 15 January 1997 and repealed by GN R1305 of 12 November 2004.]

**5.4 At coal mines, in addition to all other provisions contained in these Regulations, the following shall be observed:**

**5.4.1** Coal debris shall not be allowed to accumulate on any ground where there exist, or where there are likely to occur, surface fissures or cavities, the result of underground operations.

**5.4.2** No working of coal or any such like mineral beyond the necessary development drives may be carried on beneath any accumulation of unburnt, burning or smouldering coal or other similar debris except as provided for in the next succeeding regulation.

**5.4.3** The Principal Inspector of Mines may, on written application, permit the extraction of coal or other mineral beneath coal debris or any other similar debris heap, if he is satisfied that such may be done without danger to that or any other adjacent property: Provided that any person who extracts such mineral shall nevertheless be liable for any damage that may result from such extraction.

[Reg. 5.4.3 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**5.4.4** Broken ground which has finally subsided may be filled up with earth and be used as a site for depositing coal and other debris, provided the consent of the Principal Inspector of Mines has first been obtained.

[Reg. 5.4.4 amended by GN R94 of 15 January 1997.]

**5.4.5 ...**

[Reg. 5.4.5 repealed by GN R1237 of 29 August 2003 and by GN R1323 of 12 November 2004.]

**5.4.6 and 5.5 ...**

[Regs. 5.4.6 and 5.5 repealed by GN R1323 of 12 November 2004.]

**5.6.1 ...**

[Reg. 5.6.1 substituted by GN R2101 of 15 November 1974 and by GN R2923 of 10 December 1990, amended by GN R94 of 15 January 1997 and repealed by GN R1237 of 29 August 2003 and by GN R1323 of 12 November 2004.]

**5.6.2 and 5.6.3 ...**

[Regs. 5.6.2 and 5.6.3 substituted by GN R2101 of 15 November 1974 and by GN R2923 of 10 December 1990, amended by GN R94 of 15 January 1997 and repealed by GN R1323 of 12 November 2004.]

**5.7 ...**

[Reg. 5.7 repealed by GN R1323 of 12 November 2004.]

**5.8.1** At any mine or any works no person shall work, or cause or permit any other person to work, in any position from which the falling or slipping of such person may result in injury unless such person is, where practicable, secured by a life-line or otherwise suitably safeguarded.

[Reg. 5.8.1 amended by GN R2703 of 11 December 1981.]

**5.8.2** No person shall enter, or cause or permit any other person to enter any accumulation of water or mud other than an accumulation known to be insignificant unless such person is secured by a life-line or otherwise suitably safeguarded.

[Reg. 5.8.2 amended by GN R2703 of 11 December 1981.]

**5.8.3** No person shall work or be present at or near or cause or permit any other person to work or to be present at or near any place where there may be danger of falling mineral or material unless he or such other person wears a hard hat in good condition and of a type approved by the *Chief Inspector*.

[Reg. 5.8.3 amended by GN R2703 of 11 December 1981 and by GN R94 of 15 January 1997.]

**5.9.1** Water containing poisonous or injurious matter in suspension or solution must be effectually fenced off to prevent inadvertent access to it, and notice boards shall be put up in suitable places to warn persons from making use of such water.

**5.9.2** In no case may water containing any injurious matter in suspension or solution be permitted to escape without having been previously rendered innocuous.

**5.10 ...**

[Reg. 5.10 substituted by GN R367 of 27 February 1987, amended by GN R94 of 15 January 1997 and repealed by GN R1323 of 12 November 2004.]

**5.11** For the purposes of this Chapter of the regulations-

'bank'-

- (i). in the case of a stream or river, means the ground bordering upon and within the high flood zone of the stream or river, or 100 metres from either side of the channel referred to in paragraph (d) of this regulation, whichever area is the wider; and
- (ii). in the case of a dam, pan or lake means the ground bordering upon the high-water mark of the dam, pan or lake and all ground within 100 metres of such high-water mark in an outward direction;

'oil' means any kind of mineral oil and includes spirit produced from oil and a mixture of such oil and water or any other substances which contains not less than one hundred parts of oil in a million parts of the mixture;

'opencast mine' means a mine, including prospecting operations and any hole, trench or other excavation made in the course of prospecting operations, where a mineral deposit is or has been worked at or from the surface of the earth after removal of the overburden;

**'stream'** or **'river'** means a natural stream of water which flows in a defined channel, whether or not such channel is dry during any period of a year and whether or not its conformation has been changed by artificial means;

**'topsoil'** means all cultivable soil material that can be removed mechanically to a depth of one metre without blasting.

[Reg. 5.11 inserted by GN R537 of 21 March 1980.]

#### **5.12.1 and 5.12.2 ...**

[Regs. 5.12.1 and 5.12.2 inserted by GN R537 of 21 March 1980 and deleted by GN R3083 of 20 December 1991.]

#### **5.12.2.1 ...**

[Reg. 5.12.2.1 amended by GN R398 of 1 March 1991 and deleted by GN R3083 of 20 December 1991.]

**5.12.3** Unless exemption is granted in writing by the Director: Mineral Development, all topsoil removed at any opencast mine for the purpose of exposing, working or searching for a mineral deposit, shall be deposited at a specially selected site for replacement as topsoil during rehabilitation of the disturbed surface: Provided that where rehabilitation of the surface is carried out concurrently with prospecting, mining or operations incidental thereto, the topsoil may be replaced directly.

[Reg. 5.12.3 inserted by GN R537 of 21 March 1980 and amended by GN R847 of 21 June 1997.]

#### **5.12.4 ...**

[Reg. 5.12.4 inserted by GN R537 of 21 March 1980 and deleted by GN R367 of 27 February 1987.]

**5.12.5** When the rehabilitation of the surface of a mine or any portion of a mine has been done to the satisfaction of the Director: Mineral Development he may, in consultation with the Director-General of the Department of Water Affairs issue a certificate to the manager to the effect that the provisions of these Regulations, in so far as the rehabilitation of the surface is concerned, have been complied with.

[Reg. 5.12.5 added by GN R1339 of 22 June 1990, amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**5.12.6** When a certificate contemplated in regulation 5.12.5 is issued to the manager in respect of a portion of a mine, such portion shall be clearly indicated on the mine plan concerned with reference to the certificate concerned.

[Reg. 5.12.6 added by GN R1339 of 22 June 1990.]

**5.13 ...**

[Reg. 5.13 inserted by GN R537 of 21 March 1980 and deleted by GN R3083 of 20 December 1991.]

**5.13.1** No dumping or impounding of rubble, litter, garbage, rubbish or discards of any description, whether solid or liquid, shall take place elsewhere than at the sites demarcated for the purpose by the manager with the approval of the Director: Mineral Development. Every such site shall be limited to a minimum and every dump or dam shall be so controlled to ensure that the environment is, as far as is practicable, not polluted.

[Reg. 5.13.1 inserted by GN R537 of 21 March 1980 and amended by GN R94 of 15 January 1997.]

**5.13.2** In every case where vegetation, including trees, shrubs or grasses, are disturbed in making access roads, clearing sites for stockpiles and erecting plant or other installations, such vegetation shall be re-established to the satisfaction of the Director: Mineral Development which Director: Mineral Development may introduce a programme according to which rehabilitation shall be done.

[Reg. 5.13.2 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**5.13.3 ...**

[Reg. 5.13.3 inserted by GN R537 of 21 March 1980 and deleted by GN R3083 of 20 December 1991.]

**5.13.4** Wherever practicable, waste material from reduction works, beneficiation plants, coal preparation plants, screening and washing installations and generating stations at a mine shall be disposed of in the workings of such mine: Provided that such disposal shall only be carried out under written authority from the Director: Mineral Development, who shall consult the Department of Water Affairs beforehand.

[Reg. 5.13.4 inserted by GN R537 of 21 March 1980 and amended by GN R94 of 15 January 1997.]

**5.14** No sand shall be extracted from the bank of any stream, river, dam, pan or lake, except with the written permission of the Director: Mineral Development and upon such conditions as he may prescribe.

[Reg. 5.14 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**5.14.1** Sand may be extracted from the channel of a stream or river as well as from a dam, pan or lake: Provided that-

- (a) adequate precautions are taken to ensure that the stability of the banks is not affected by such operations;
- (b) adequate precautions are taken to prevent the scouring and erosion of the banks which may result from such operations or work incidental thereto; and
- (c) effluent produced from such operations shall not be returned to any stream, river, dam, pan or lake unless such effluent conforms to the purity standards laid down by the Department of Water Affairs.

[Reg. 5.14.1 inserted by GN R537 of 21 March 1980.]

**5.14.2** In any case where damage to the bank of a stream, river, dam, pan or lake is or has been caused, such bank shall be restored to a condition acceptable to the Director: Mineral Development at the expense of the owner or manager.

[Reg. 5.14.2 inserted by GN R537 of 21 March 1980 and amended by GN R94 of 15 January 1997.]

**5.14.3** No sand dump or slimes dam shall be established on the bank of any stream, river, dam, pan or lake without the written permission of the Director: Mineral Development and upon such conditions as he may prescribe.

[Reg. 5.14.3 inserted by GN R537 of 21 March 1980 and amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**5.14.4** The regulations in this Chapter shall not apply to land referred to in section 160 of the Mining Rights Act, 1967 (Act 20 of 1967), and shall not derogate from any other Act or regulation framed in terms of any Act governing the removal of sand or other mineral from any stream, river, dam, pan or lake.

[Reg. 5.14.4 inserted by GN R537 of 21 March 1980.]

**5.15** During prospecting for or the recovery of oil, all reasonable measures shall be taken, to the satisfaction of the Director: Mineral Development, to prevent the escape of oil to the surroundings, either on land or in the sea.

[Reg. 5.15 inserted by GN R537 of 21 March 1980 and amended by GN R847 of 21 June 1997.]

### **Pecuniary provision**

**5.16.1** The holder of a prospecting permit or mining authorisation shall demonstrate in his environmental management programme that he has the financial means and has made sufficient and acceptable pecuniary provision to the satisfaction of the Director: Mineral Development to carry out such programme.

[Reg. 5.16.1 amended by GN R398 of 1 March 1991, by GN R814 of 13 March 1992, by GN R31 of 13 January 1995 and by GN R94 of 15 January 1997.]

- 5.16.2** Where the holder of a prospecting permit or mining authorisation is not required to have an environmental management programme, the Director: Mineral Development may order such holder to make, to his satisfaction, provision for—  
(a) the rehabilitation of the surface of the mining area;  
(b) the prevention of pollution of the atmosphere;  
(c) the prevention of pollution of water and the soil; and  
(d) the final closure of the mine.

[Reg. 5.16.2 amended by GN R398 of 1 March 1991, by GN R814 of 13 March 1992, by GN R31 of 13 January 1995 and by GN R94 of 15 January 1997.]

- 5.16.3** The holder of a prospecting permit or mining authorisation shall annually, to the satisfaction of the Director: Mineral Development and in consultation with an expert, determine the quantum of pecuniary provision which is required of him in terms of regulation 5.16.1 or 5.16.2.

[Reg. 5.16.3 amended by GN R398 of 1 March 1991, by GN R814 of 13 March 1992, by GN R31 of 13 January 1995 and by GN R94 of 15 January 1997.]

- 5.16.4** The pecuniary provision referred to in regulation 5.16.1 and 5.16.2 shall only be used for the purposes of the said regulations.

[Reg. 5.16.4 amended by GN R31 of 13 January 1995.]

## **Performance assessment and monitoring of environmental management programme**

### **Definitions**

- 5.17** For the purpose of regulations 5.18 to 5.18.11—

**'environmental management programme'** means an environmental management programme approved in terms of section 39(1) of the Act, unless specifically otherwise indicated herein;

**'independent team'** means a person or a team of persons with appropriate expertise in environmental assessment and management, who—  
(i). has not been involved with the operational management of the mining or prospecting operation in question; or  
(ii). has previously not been involved in the particular performance assessment of the environmental management programme being considered;

**'monitoring'** means the use of quantitative and qualitative data gathering techniques in order to-

- (i). ascertain whether the requirements of an environmental management programme are being complied with; and
- (ii). supply supporting information for the performance assessment of the environmental management programme;

**'performance assessment'** means a systematic, periodic, objective and documented evaluation of-

- (i). the compliance with an environmental management programme; and
- (ii). the continued appropriateness and adequacy of the environmental management programme;

**'report'** means the report referred to in regulation 5.18(c).

[Reg. 5.17 added by GN R801 of 12 June 1999.]

### **Compliance with environmental management programme**

**5.18** In order to ensure compliance with an environmental management programme and to access the continued appropriateness and adequacy of the environmental management programme, the holder of a prospecting permit or mining authorisation shall-

- (a) conduct the monitoring of the environmental management programme on an ongoing basis;
- (b) conduct the performance assessments of the environmental management programme in accordance with regulations 5.18.1, 5.18.2, 5.18.3 and 5.18.4;
- (c) compile and submit to the Director: Mineral Development a report on the performance assessment of the environmental management programme in which compliance with regulation 5.18(b) is demonstrated.

### **Assessment and report**

**5.18.1** In order to comply with the provisions of regulation 5.18(b) and (c), the holder of a prospecting permit or mining authorisation shall conduct the performance assessment of the relevant environmental management programme and compile and submit the report to the satisfaction of the Director: Mineral Development-

- (a) in accordance with the requirements of the relevant environmental management programme; or
- (b) if the environmental management programme does not provide therefor, as agreed to in writing by the Director: Mineral Development.

## No approved programme and exemption

### 5.18.2 If-

- (a) an environmental management programme has not been approved in terms of section 39(1) of the Act; and
- (b) exemption has not been granted in terms of section 39(2)(a) of the Act from the requirement to obtain such approval, the holder of the prospecting permit or mining authorisation in question shall make arrangements for the conducting of performance assessments of an environmental management programme and the compiling and submitting of reports as agreed to in writing by the Director: Mineral Development.

## Internationally recognised standards for environmental management systems

5.18.3 The holder of a prospecting permit or mining authorisation whose prospecting and mining operations have been certified in terms of internationally recognised standards for environmental management systems may, on application to the Director: Mineral Development and provided that proof of such certification and compliance thereto is furnished, be exempted from the provisions of regulation 5.18(b), but reports shall be compiled and submitted in accordance with regulation 5.18.4 to demonstrate that performance assessments of the relevant environmental management programme are being conducted to the satisfaction of the Director: Mineral Development.

## Frequency of assessments and reports

5.18.4 The frequency of conducting performance assessments of an environmental management programme and the compiling and submitting of reports shall be in accordance with the period-

- (a) specified in the environmental management programme; or
- (b) if such period is not so specified-
  - (i). as agreed to in writing by the Director: Mineral Development; or
  - (ii). every two years from the date of approval of that environmental management programme.

## Content and copies of report

5.18.5.1 The report shall contain the following:

- (i). A clear indication of the period that applies to the performance assessment of the environmental management programme;
- (ii). the scope of that assessment;
- (iii). the procedure used for that assessment;
- (iv). the interpreted information gained from the monitoring of the environmental management programme;

- (v). the evaluation criteria used during that assessment;
- (vi). the results of that assessment; and
- (vii). recommendations on how and when identified deficiencies and non-compliance of requirements will be rectified.

**5.18.5.2** The holder of the prospecting permit or mining authorisation in question shall submit to the Director: Mineral Development such number of copies of the report as that Director determines.

### **Appointment of persons with appropriate expertise**

**5.18.6** The holder of a prospecting permit or mining authorisation may appoint persons with appropriate expertise to conduct the performance assessment of the environmental management programme and compile the report, provided that such appointment shall not relieve the holder of his or her responsibilities in terms of these Regulations.

### **Report to be made available**

**5.18.7** The report submitted to the Director: Mineral Development shall be made available by him or her to-

- (a) other departments which have been involved in the approval of the environmental management programme; and
- (b) other parties on written request.

### **Assessment of report unacceptable**

**5.18.8** If the Director: Mineral Development finds that-

- (a) the performance assessment of the environmental management programme conducted by the holder of a prospecting permit or mining authorisation is not satisfactory; or
- (b) the report submitted by that holder is not acceptable, that holder may, at his cost, be required to do any or all of the following:
  - (i). Repeat the whole or relevant parts of that assessment and revise and resubmit the report;
  - (ii). submit relevant supporting information;
  - (iii). appoint an independent team to conduct the whole or part of that assessment and to compile the report.

### **Response to report**

**5.18.9** The Director: Mineral Development shall respond in writing to the holder of the prospecting permit or mining authorisation on the performance assessment of the environmental management programme within four months after the date of receiving the report, unless otherwise agreed to in writing between the Director and the holder.

**Appointment of independent team by Director-General**

**5.18.10.1** If there is reason to believe that the performance of assessment of the environmental management programme cannot be conducted satisfactorily by the holder of the prospecting permit or mining authorisation, the Director-General may appoint an independent team to conduct that assessment.

5.18.10.2 The cost of the appointment of the independent team in terms of regulation 5.18.10.1 and the conducting of the performance assessment of the environmental management programme shall be for the account of the holder in question.

**Final performance assessment of environmental management programme**

**5.18.11.1** When the holder of a prospecting permit or mining authorisation intends terminating his or her prospecting or mining operations and intends obtaining a certificate contemplated in section 12 of the Act, a final performance assessment of the environmental management programme shall be conducted and a report to the satisfaction of the Director: Mineral Development shall be submitted to indicate that-

- (a) the requirements of the relevant legislation have been complied with;
- (b) the objectives as described in the environmental management programme have been met; and
- (c) all residual and latent environmental impacts resulting from the prospecting and mining operations of that holder have been identified and the risks thereof have been identified and quantified and arrangements for the management of those risks have been finalised.

**5.18.11.2** The conducting of the final performance assessment of the environmental management programme and the submission of the report referred to in regulation 5.18.11.1 shall precede or accompany the application for a certificate contemplated in section 12 of the Act.

[Reg. 5.18 added by GN R801 of 12 June 1999.]

## CHAPTER 6

### OUTLETS, LADDERWAYS AND TRAVELLINGWAYS

#### **6.1.1 to 6.1.3 inclusive ...**

[Reg. 6.1.1 to 6.1.3 inclusive repealed by GN R1224 of 15 December 2005.]

#### **6.2.1 to 6.2.5 inclusive ...**

[Reg. 6.2.1 to 6.2.5 inclusive repealed by GN R1224 of 15 December 2005.]

#### **6.3.1 and 6.3.2 ...**

[Regs. 6.3.1 and 6.3.2 repealed by GN R1224 of 15 December 2005.]

#### **6.3.2.1 ...**

[Reg. 6.3.2.1 repealed by GN R1224 of 15 December 2005.]

**6.3.2.2** If electricity or compressed air for operating winding, ventilating or pumping machinery is purchased the manager of the mine shall notify the supplier of such power of the importance of ensuring that interruptions of supply shall be as infrequent and of as short a duration as possible.

#### **6.3.2.3 ...**

[Reg. 6.3.2.3 repealed by GN R1237 of 29 August 2003.]

#### **6.3.2.4 ...**

[Reg. 6.3.2.4 substituted by GN R367 of 27 February 1987, amended by GN R2062 of 23 August 1991 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

#### **6.3.2.5 ...**

[Reg. 6.3.2.5 amended by GN R1352 of 1988 and by GN R94 of 1997 and repealed by GN 1278 of 2006.]

#### **6.3.2.6 ...**

[Reg. 6.3.2.6 repealed by GN R1224 of 2005.]

#### **6.3.2.7 ...**

[Reg. 6.3.2.7 amended by GN R94 of 1997 and repealed by GN R1224 of 2005.]

#### **6.3.2.8 ...**

[Reg. 6.3.2.8 repealed by GN R1224 of 2005.]

**6.3.2.9 ...**

[Reg. 6.3.2.9 amended by GN R94 of 1997 and repealed by GN 1278 of 2006.]

**6.3.2.10 ...**

[Reg. 6.3.2.10 repealed by GN R91 of 2008.]

**6.3.2.11** First aid equipment and an adequate supply of disinfectant shall be kept at points underground not more than 1 000 metres from any place where mining operations are being conducted.

[Reg. 6.3.2.11 amended by GN R303 of 1972.]

**6.3.2.12 ...**

[Reg. 6.3.2.12 repealed by GN R1224 of 2005.]

**6.3.3.1 to 6.3.3.3 inclusive ...**

[Regs. 6.3.3.1 to 6.3.3.3 inclusive amended by GN R94 of 1997 and repealed by GN R1224 of 2005.]

**6.3.3.4 ...**

[Reg. 6.3.3.4 amended by GN R814 of 1992 and by GN R94 of 1997 and repealed by GN R1224 of 2005.]

**6.3.3.5 ...**

[Reg. 6.3.3.5 amended by GN R94 of 1997 and repealed by GN R1224 of 2005.]

**6.3.3.6 ...**

[Reg. 6.3.3.6 repealed by GN R1224 of 2005.]

**6.4** Hoisting arrangements shall be provided for every person who has to ascend in a vertical or inclined shaft, winze or other working, when the height to be ascended exceeds 150 metres measured vertically.

[Reg. 6.4 amended by GN R303 of 1972.]

**6.5.1** Except as is permitted in terms of regulation 6.5.2.1 a proper ladderway shall be provided when the inclination from the horizontal exceeds 20 degrees-

- (a) in a shaft or outlet if, according to the provisions of regulation 6.3.1, such shaft or outlet is allowed to afford the only means of egress to the surface for persons employed in the underground workings;

- (b) in a connection, or part thereof, from any part of the underground workings to a shaft or outlet to surface if such connection, or part thereof, affords the only means of egress to a shaft or outlet to surface for persons employed in any *working place*; and
- (c) in a shaft or winze in the course of sinking. In this case the ladderway shall be provided to within such distance from the bottom of the said shaft or winze as is the minimum to secure the ladderway from damage during blasting. From the lower end of such ladderway to the bottom of the shaft or winze there shall be provided-
  - (i). chains, chain ladders or wire rope ladders where the inclination is more than 35 degrees and less than 70 degrees;
  - (ii). chain ladders or wire rope ladders where the inclination is 70 degrees or more.

**6.5.2.1** The provisions of regulation 6.5.1 shall not apply if at least two winding plants of adequate capacity are kept for immediate use to convey persons and if adequate power for winding purposes from at least two independent sources is provided at the winding plants so that in the event of failure of the power supply from one source the supply from the others will be readily available. When the winding plants are operated by electric power from a substation by way of a complete ring circuit or duplicate supply lines and the substation is fed from a main power system through a complete ring system or duplicate supply lines, such an arrangement of circuits shall be deemed to constitute two independent sources of supply.

**6.5.2.2** If there are only two winding plants and one of these is a standby plant, the standby plant shall be tested once daily with at least the load equivalent to the total mass permitted for persons by running the conveyance or conveyances for a complete trip down and up the winding compartment or compartments. In the event of such standby winding plant depending for its operation on power generated at the mine, sufficient fuel and essential stores for the generation of power for the operation of the winding plant shall be kept at the mine.

[Reg. 6.5.2.2 amended by GN R303 of 1 March 1972.]

**6.6** The following provisions shall apply to every ladder or stairway in or at a mine or at a works.

[Reg. 6.6 amended by GN 160 of 1991.]

**6.6.1** Where the inclination to the horizontal is more than 20 degrees and less than 70 degrees the ladderway shall not be continuous over a greater distance than 16 metres.

[Reg. 6.6.1 amended by GN R303 of 1972 and by GN 160 of 1991.]

**6.6.2** Where the inclination from the horizontal is 70 degrees or more each section of any stairway or ladder shall be-

- (a) not more than 10 metres in length without a break;

[Para. (a) amended by GN R303 of 1 March 1972.]

- (b) provided with resting places or resting platforms at the breaks; and
- (c) installed in such a manner that the bottom end is not aligned with a hatchway in a resting place or resting platform.

[Reg. 6.6.2 substituted by GN 160 of 1 February 1991.]

**6.6.3** Where the inclination from the horizontal is more than 35 degrees the ladder shall project at least one metre above the mouth of the shaft, winze or other excavation and above every resting place, except when a strong handrail is fixed at such mouth or resting place.

[Reg. 6.6.3 amended by GN R303 of 1 March 1972.]

**6.6.4** Every permanent ladder or stairway with-

- (a) an inclination of 75 degrees or more from the horizontal; and
- (b) a total height exceeding 5 metres, shall be enclosed by a cage provided with a backrest which shall-
  - i). at no point be more than 700 millimetres from the rungs of the ladder; and
  - ii). extend to a point 2 metres or less from the base of the ladder to a point at least 900 millimetres beyond the resting place or resting platform at the top of the stairway or ladder.

[Reg. 6.6.4 substituted by GN 160 of 1 February 1991.]

**6.6.5** No ladderway shall be fixed in an overhanging position.

**6.6.6** Every ladder used in a ladderway shall be-

- (a) of strong construction;
- (b) securely fastened to the timbering or wall of the shaft, winze or other excavation; and
- (c) maintained in good repair;

**6.7** A wire rope or a strand of wire rope shall not be allowed to be used for climbing purposes in a mine if the rope or strand is kinked, knotted or contains broken or projecting wires.

**6.8** In every vertical shaft and in every shaft having an inclination from the horizontal of 45 degrees or more any compartment regularly used as a foot travelling way shall be securely bratticed off from any other compartment. Where the inclination is more than 10 degrees and less than 45 degrees such compartment shall be securely bratticed off to a height of at least 1,5 metres above the ladderway measured normal to the dip: Provided that any such shaft may be exempted from the provisions of this regulation by the Principal Inspector of Mines if it is not used for winding purposes.

[Reg. 6.8 amended by GN R303 1972 and by GN R94 of 1997.]

**6.9 ...**

[Reg. 6.9 repealed by GN R1224 of 2005.]

**6.10** Every main travelling road in a mine shall be maintained at a height of at least 1,8 metres or at such lesser height as the Principal Inspector of Mines may, in writing, permit. For the purpose of this regulation 'main travelling road' shall mean a road used by the main body of any shift employed in the mine for travelling to and from their working places and, where the mine is divided into sections or districts, the road used by the main body of the men employed in such section or district.

[Reg. 6.10 amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997.]

**6.11 ...**

[Reg. 6.11 repealed by GN R1224 of 15 December 2005.]

## **CHAPTER 7**

### **PROTECTION IN WORKINGS**

**7.1 ...**

[Reg. 7.1 repealed by GN R959 of 2002.]

**7.2.1** At the bottom of every shaft in the course of being sunk there shall be present at all times a competent person when workmen are present thereat.

[Reg. 7.2.1 amended by GN R1352 of 1988.]

**7.2.2 ...**

[Reg. 7.2.2 repealed by GN R904 of 2002 and by GN R959 of 2002.]

**7.3.1 ...**

[Reg. 7.3.1 amended by GN R94 of 1997 and repealed by GN R904 2002.]

**7.3.2** Every entrance to every vertical or steeply inclined shaft, winze, sump, rockpass or other dangerous excavation shall be kept properly closed by a fence, barrier, door or gate, and shall be kept adequately covered, so as to prevent persons having unintentional access to, or accidentally slipping or falling into, such excavation.

**7.3.3** No person other than the manager, mine overseer or shift boss shall cross or open any fence, barrier, gate, wall, door or cover provided for protection in workings until he has received definite instructions or permission to do so from the ganger or miner or other responsible person in charge.

**7.3.4** The ganger or miner or other responsible person in charge shall not cross or open, any fence, barrier, gate, wall, door or cover provided for protection in workings except for the purpose of conducting repairs or other necessary operations and then only if effective precautions for the safety of persons are taken.

**7.4.1** If the roof, hanging or sidewalls in the workings of any mine or part of a mine are in the opinion of the Principal Inspector of Mines of a nature requiring systematic support he may give notice to that effect to the manager who shall, after consultation with any regional mining engineer (mining) specify the support to be provided and the system according to which it shall be placed.

[Reg. 7.4.1 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**7.4.2** The manager shall ensure that all persons concerned are made aware of such system and that notices setting out its specifications are posted up at suitable places where they can be conveniently read.

**7.4.3** Any person who fails to comply with the specifications of such system shall be guilty of an offence.

**7.4.4** If, in the opinion of the Principal Inspector of Mines, the method of supporting the roof, hanging and sidewalls in the workings of any mine or part of a mine is unsafe either by reason of the distances between supports being excessive or for any other reason, he may by notice in writing require the manager to modify the method.

[Reg. 7.4.4 amended by GN R94 of 15 January 1997.]

7.4.5 ...

[Reg. 7.4.5 repealed by GN R959 of 22 July 2002.]

**7.5.1** No timber, rock, tools or other articles shall be placed or allowed to remain where they accidentally can fall or be caused to fall down any vertical or steeply inclined excavation and thereby endanger the safety of persons.

**7.5.2** No person shall carry or be permitted to carry any drill, tool or loose material on a ladderway in a vertical or steeply inclined shaft or winze except so far as may be necessary in executing repairs.

**7.5.3** Every opening from a vertical or steeply inclined excavation into a travellingway or *working place* situated on the lower or dip side of such excavation shall be kept barricaded so that persons travelling or working below or near such opening are effectively protected against the danger from the falling or rolling of timber, stones, tools or other articles.

**7.6** Every stull in or above every place where any person works or travels shall be examined at least once a week and maintained in a safe condition and adequately loaded.

**7.7.1** No person shall enter or remain in, or cause or permit any other person to enter or remain in, the underground workings of a mine unless he or such other person wears a hard hat in good condition and of a type approved by the *Chief Inspector*.

[Reg. 7.7.1 amended by GN R94 of 15 January 1997.]

**7.7.2** In opencast workings no person shall enter or remain at or near, or cause any other person to enter or remain at or near, any vertical or steeply inclined face or sidewall which exceeds a vertical height of three metres unless he or such other person wears a hard hat in good condition and of a type approved by the *Chief Inspector*.

[Reg. 7.7.2 amended by GN R303 of 1972 and by GN R94 of 1997.]

**7.7.3** The hard hat as required in terms of regulation 7.7.1 and 7.7.2 shall be provided free of cost by the manager.

[Reg. 7.7.3 amended by GN R1352 of 1988.]

**7.8.1** No person shall work, or cause or permit any other person to work, in or near any part of the workings of a mine where inadvertent slipping or overbalancing may result in his sliding or falling down any slope that has an inclination from the horizontal of 45 degrees or more, or in his falling vertically, unless he is secured by a life-line or otherwise protected.

**7.8.2** The use of life-lines in terms of regulation 7.8.1 shall not be compulsory in the case of persons who are engaged in installing or repairing equipment in a vertical shaft or in a vertical winze provided the manager or mine overseer has given permission thereto after having satisfied himself that-

- (a) the use of life-lines by the persons concerned would impede such persons in the safe performance of such work;

- (b) such persons have had the training and experience necessary to carry out such work safely; and
- (c) any such person when engaged in such work and not secured by a life-line is under the immediate supervision of a competent person.

[Para. (c) amended by GN R1352 of 8 July 1988.]

**7.8.3** No person shall enter, or cause or permit any other person to enter, an accumulation of water in the workings of a mine, other than an accumulation known to be insignificant, unless he or such other person is secured by a life-line or wears a life-belt or life-jacket.

**7.9.1** In open face working and when digging trenches, pits or excavations in sand, soil, gravel, clay, tailings, slimes, ash, debris or similar ground or deposit and when removing any such ground or deposit from any dump, dam or heap-

- (a) no person shall undercut the face or sidewall of any portion of a dump, dam or heap consisting of such ground or deposit unless permitted by the Principal Inspector of Mines and under such conditions as he may prescribe; and

[Para. (a) amended by GN R94 of 1997.]

- (b) except as permitted in regulation 7.9.1(a), the face or sidewall above the level where persons may work or travel shall be sloped or terraced back at a safe angle or adequately supported where the vertical height of such face or sidewall is-
  - i). three metres or more; or

[Subpara. (i) amended by GN R303 of 1972.]

- ii). less than three metres but more than 1,5 metres if the width of the adjacent or travelling space is less than the vertical height of the face or sidewall.

[Subpara. (ii) amended by GN R303 of 1972.]

**7.10.1 ...**

[Reg. 7.10.1 repealed by GN R1305 of 2004.]

**7.10.2 ...**

[Reg. 7.10.2 amended by GN R303 of 1972, substituted by GN R2706 of 1990 and repealed by GN R1305 of 2004.]

**7.10.3 ...**

[Reg. 7.10.3 amended by GN R1339 of 1990, substituted by GN R2706 of 1990 and repealed by GN R1305 of 12 November 2004.]

**7.10.4 and 7.10.5 ...**

[Regs 7.10.4 and 7.10.5 amended by GN R303 of 1 March 1972 and by GN R1339 of 22 June 1990 and repealed by GN R1305 of 12 November 2004.]

**7.10.6 ...**

[Reg. 7.10.6 amended by GN R303 of 1 March 1972 and repealed by GN R1305 of 12 November 2004.]

**7.10.7 and 7.10.8 ...**

[Regs 7.10.7 and 7.10.8 repealed by GN R1305 of 12 November 2004.]

**7.10.9 ...**

[Reg. 7.10.9 inserted by GN R537 of 12 March 1980 and repealed by GN R1305 of 12 November 2004.]

**7.11.1 ...**

[Reg. 7.11.1 amended by GN R303 of 1 March 1972, substituted by GN R1346 of 4 August 1972 and repealed by GN R91 of 1 February 2008.]

**7.11.2 to 7.11.5 inclusive ...**

[Regs. 7.11.2 to 7.11.5 inclusive inserted by GN R1346 of 4 August 1972 and repealed by GN R91 of 1 February 2008.]

**7.12.1 ...**

[Reg. 7.12.1 renumbered by GN R1346 of 4 August 1972 and repealed by GN R1305 of 12 November 2004.]

**7.12.2 ...**

[Reg. 7.12.2 renumbered and amended by GN R1346 of 4 August 1972 and repealed by GN R1305 of 12 November 2004.]

**7.12.3 and 7.12.4 ...**

[Regs 7.12.3 and 7.12.4 renumbered by GN R1346 of 4 August 1972, amended by GN R94 of 15 January 1997 and repealed by GN R1305 of 12 November 2004.]

## CHAPTER 8

### RESPONSIBILITY IN WORKINGS

**8.1** At any mine-

**8.1.1** ...

[Reg. 8.1.1 repealed by GN R959 of 22 July 2002.]

**8.1.2** ...

[Reg. 8.1.2 repealed by GN R959 of 22 July 2002.]

**8.1.3** ...

[Reg. 8.1.3 amended by GN R367 of 27 February 1987 and repealed by GN R959 of 22 July 2002.]

**8.1.4** in any *working place* the ganger or miner in charge shall take all reasonable precautions against injury to any person from the falling or rolling of timber, rock, tools or other articles.

**8.1.5** and **8.1.6** ...

[Regs. 8.1.5 and 8.1.6 repealed by GN R959 of 22 July 2002.]

**8.2** ...

[Reg. 8.2 repealed by GN R959 of 22 July 2002.]

**8.2.1** ...

[Reg. 8.2.1 repealed by GN R959 of 22 July 2002.]

**8.2.2** ...

[Reg. 8.2.2 repealed by GN R959 of 22 July 2002.]

**8.2.3** ...

[Reg. 8.2.3 repealed by GN R959 of 22 July 2002.]

**8.3** At any mine-

**8.3.1** ...

[Reg. 8.3.1 repealed by GN R959 of 22 July 2002.]

**8.3.2** ...

[Reg. 8.3.2 amended by GN R1352 of 8 July 1988 and repealed by GN R959 of 22 July 2002.]

**8.3.3** no ganger or miner in charge of workmen employed in a vertical shaft or vertical winze being sunk, or in a main development drive in any fiery mine, or on the extraction of pillars in a coal mine, shall at any time leave his *working place* or section, unless he-

- (a) has withdrawn all workmen from it; or
- (b) is relieved by another ganger or miner.

[Reg. 8.3.3 substituted by GN R2062 of 23 August 1991.]

**8.3.4** a competent person shall be present when workmen are present at the bottom of an incline shaft in the course of being sunk.

[Reg. 8.3.4 inserted by GN R2062 of 23 August 1991.]

**8.4.1** the ganger or miner shall at the end of his shift withdraw all workmen from the section for which he is responsible.

**8.4.2** except as provided for in regulation 8.3.3, workmen may remain in, or enter, or be permitted to remain in, or enter, the waiting place required in accordance with regulation 2.10.6 for the purpose of carrying out specific work authorised by the manager or mine overseer, provided that-

- (a) and (b) ...

[Paras. (a) and (b) repealed by GN R959 of 22 July 2002.]

- (c) ...

[Para. (c) repealed by GN R904 of 2 July 2002.]

- (d) ...

[Para. (d) repealed by GN R959 of 22 July 2002.]

**8.4.3** and **8.4.3.1** ...

[Regs. 8.4.3 and 8.4.3.1 repealed by GN R959 of 22 July 2002.]

**8.4.3.2** ...

[Reg. 8.4.3.2 amended by GN R303 of 1 March 1972 and repealed by GN R959 of 22 July 2002.]

**8.4.3.3** and **8.4.4.1** ...

[Regs. 8.4.3.3 and 8.4.4.1 repealed by GN R959 of 22 July 2002.]

**8.4.4.2** ...

[Reg. 8.4.4.2 amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997 and repealed by GN R959 of 22 July 2002.]

**8.4.4.3 and 8.4.5 ...**

[Regs. 8.4.4.3 and 8.4.5 repealed by GN R959 of 22 July 2002.]

**8.4.6 and 8.4.7 ...**

[Regs. 8.4.6 and 8.4.7 repealed by GN R1237 of 29 August 2003.]

**8.5.1 ...**

[Reg. 8.5.1 amended by GN R303 of 1 March 1972 and by GN R367 of 27 February 1987, substituted by GN R1339 of 22 June 1990, amended by GN R2062 of 23 August 1991 and repealed by GN R904 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.5.2 ...**

[Reg. 8.5.2 substituted by GN R1339 of 22 June 1990 and repealed by GN R904 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.6.1 ...**

[Reg. 8.6.1 substituted by GN R1339 of 22 June 1990, amended by GN R2062 of 23 August 1991 and repealed by GN R905 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.6.2 ...**

[Regs. 8.6.2 and 8.6.3 substituted by GN R1339 of 22 June 1990 and repealed by GN R905 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.6.3 ...**

[Regs. 8.6.2 and 8.6.3 substituted by GN R1339 of 22 June 1990 and repealed by GN R905 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.7.1 ...**

[Reg. 8.7.1 substituted by GN R1339 of 22 June 1990 and repealed by GN R905 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.7.2 ...**

[Reg. 8.7.2 substituted by GN R1339 of 22 June 1990 and amended by GN R2062 of 23 August 1991 and repealed by GN R905 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.8 ...**

[Reg. 8.8 repealed by GN R959 of 22 July 2002.]

**8.8.1 ...**

[Reg. 8.8.1 substituted by GN R513 of 1 April 1977, amended by GN R537 of 21 March 1980 and by GN R94 of 15 January 1997 and repealed by GN R959 of 22 July 2002.]

**8.8.2 ...**

[Reg. 8.8.2 repealed by GN R959 of 22 July 2002.]

**8.8.3.1 and 8.8.3.2 ...**

[Regs. 8.8.3.1 and 8.8.3.2 repealed by GN R959 of 22 July 2002.]

**8.8.4 ...**

[Reg. 8.8.4 amended by GN R94 of 15 January 1997 and repealed by GN R959 of 22 July 2002.]

**8.9 In every coal mine-**

**8.9.1 ...**

[Reg. 8.9.1 amended by GN R94 of 15 January 1997 and repealed by GN R959 of 22 July 2002.]

**8.9.2 ...**

[Reg. 8.9.2 amended by GN R305 of 1 March 1972 and repealed by GN R959 of 22 July 2002.]

**8.9.3.1 ...**

[Reg. 8.9.3.1 amended by GN R1352 of 8 July 1988 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**8.9.3.2 ...**

[Reg. 8.9.3.2 amended by GN R94 of 15 January 1997 and repealed by GN R905 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.9.4 ...**

[Reg. 8.9.4 amended by GN R367 of 27 February 1987, by GN R2062 of 23 August 1991 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.9.5 ...**

[Reg. 8.9.5 amended by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**8.9.6 ...**

[Reg. 8.9.6 repealed by GN R959 of 22 July 2002.]

**8.9.7** where coal pillars are being extracted, the ganger or miner shall not have charge of more than 12 working places or such lesser number of working places as the Principal Inspector of Mines may determine for the particular section of the mine and the said inspections shall include all accessible portions of the goaf edge of each *working place*;

[Reg. 8.9.7 amended by GN R94 of 15 January 1997.]

**8.9.8 ...**

[Reg. 8.9.8 amended by GN R367 of 27 February 1987 and repealed by GN R904 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.9.9 ...**

[Reg. 8.9.9 amended by GN R367 of 27 February 1987 and by GN R2062 of 23 August 1991 and repealed by GN R904 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.9.10 ...**

[Reg. 8.9.10 substituted by GN R513 of 1 April 1977, amended by GN R367 of 27 February 1987 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002 and by GN R1237 of 29 August 2003.]

**8.10 ...**

[Reg. 8.10 amended by GN R303 of 1 March 1972, by GN R305 of 1 March 1972, by GN R2101 of 15 November 1974, by GN R367 of 27 February 1987, GN R1352 of 8 July 1988, by GN R2062 of 23 August 1991, by GN R94 of 15 January 1997, by GN R904 of 2 July 2002, by GN R959 of 22 July 2002 and by GN R1237 of 29 August 2003 and repealed by GN 1278 of 15 December 2006.]

**8.11** The ganger or miner shall report without delay any case of gassing, however slight, to the manager, mine overseer or shift boss, who shall ensure that such case receives prompt medical attention.

[Reg. 8.11 amended by GN R1352 of 8 July 1988 and repealed by GN 1278 of 15 December 2006.]

## **CHAPTER 9 ...**

[Chapter 9 amended by GN R303 of 1 March 1972, by GN R305 of 1 March 1972, by GN R2101 of 15 November 1974, by GN R2102 of 15 November 1974, by GN R513 of 1 April 1977, by GN R537 of 21 March 1980, by GN R1352 of 8 July 1988, by GN R1339 of 22 June 1990, by GN R2062 of 23 August 1991, by GN R3083 of 20 December 1991, by GN R94 of 15 January 1997, by GN R1325 of 12 November 1999 and by GN R904 of 2 July 2002 and repealed by GN 1278 of 15 December 2006.]

## **CHAPTER 10**

### **VENTILATION, GASES AND DUST**

**A.** The following provisions shall apply to works and the surface of every mine-

#### **10.1.1 and 10.1.2 ...**

[Regs. 10.1.1 and 10.1.2 amended by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

#### **10.2.1 to 10.2.3 inclusive ...**

[Regs. 10.2.1 to 10.2.3 inclusive repealed by GN R904 of 2 July 2002.]

#### **10.2.4 ...**

[Reg. 10.2.4 substituted by GN 160 of 1 February 1991 and repealed by GN R904 of 2 July 2002.]

#### **10.2.5 ...**

[Reg. 10.2.5 repealed by GN R904 of 2 July 2002.]

#### **10.2.6 ...**

[Reg. 10.2.6 amended by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

#### **10.3.1 ...**

[Reg. 10.3.1 repealed by GN R904 of 2 July 2002.]

#### **10.3.2 ...**

[Reg. 10.3.2 amended by GN R1352 of 8 July 1988 and repealed by GN R904 of 2 July 2002.]

#### **10.3.3 ...**

[Reg. 10.3.3 repealed by GN R904 of 2 July 2002.]

#### **10.3.4 ...**

[Reg. 10.3.4 amended by GN R1352 of 8 July 1988 and repealed by GN R904 of 2 July 2002.]

#### **10.3.5 ...**

[Reg. 10.3.5 amended by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

#### **10.3.6 ...**

[Reg. 10.3.6 repealed by GN R904 of 2 July 2002.]

**10.4 ...**

[Reg. 10.4 amended by GN 160 of 1 February 1991 and repealed by GN R904 of 2 July 2002.]

**10.5.1 ...**

[Reg. 10.5.1 repealed by GN R904 of 2 July 2002.]

**10.5.2 ...**

[Reg. 10.5.2 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.6 ...**

**10.6.1 ...**

[Reg. 10.6.1 repealed by GN R904 of 2 July 2002.]

**10.6.2 and 10.6.3 ...**

[Regs. 10.6.2 and 10.6.3 amended by GN R1339 of 22 June 1990 and repealed by GN R904 of 2 July 2002.]

**10.6.4 ...**

[Reg. 10.6.4 amended by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.6.5 ...**

[Reg. 10.6.5 amended by GN R1339 of 22 June 1990 and repealed by GN R904 of 2 July 2002.]

**10.6.6 ...**

[Reg. 10.6.6 amended by GN R367 of 27 February 1987, by GN R1339 of 22 June 1990, by GN R2062 of 23 August 1991 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.6.7 ...**

[Reg. 10.6.7 amended by GN R303 of 1 March 1972 and repealed by GN R904 of 2 July 2002.]

**10.6.8 ...**

[Reg. 10.6.8 amended by GN R367 of 27 February 1987, substituted by GN R1339 of 22 June 1990, amended by GN R94 of 15 January 1997 and repealed by GN R788 of 14 June 2002.]

**10.7 ...**

[Reg. 10.7 amended by GNs R303 and R305 of 1 March 1972, by GN R367 of 27 February 1987 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.8 ...**

[Reg. 10.8 amended by GN R305 of 1 March 1972, by GN R1339 of 22 June 1990, by GN R2062 of 23 August 1991, by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.9.1.1 ...**

[Reg. 10.9.1.1 amended by GN R3083 of 20 December 1991 and repealed by GN R904 of 2 July 2002.]

**10.9.1.2 ...**

[Reg. 10.9.1.2 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.9.2 ...**

[Reg. 10.9.2 amended by GN R367 of 27 February 1987, substituted by GN R1339 of 22 June 1990, amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.9.3 ...**

[Reg. 10.9.3 amended by GN R304 of 1 March 1972 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.9.4 ...**

[Reg. 10.9.4 substituted by GN R305 of 1 March 1972, amended by GN R2103 of 15 November 1974 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.9.5 ...**

[Reg. 10.9.5 repealed by GN R904 of 2 July 2002.]

**10.9.6 ...**

[Reg. 10.9.6 amended by GN R367 of 27 February 1987 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.10 ...**

**10.10.1 and 10.10.2 ...**

[Regs. 10.10.1 and 10.10.2 amended by GN R305 of 1 March 1972 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.10.3 and 10.10.4 ...**

[Regs. 10.10.3 and 10.10.4 repealed by GN R904 of 2 July 2002.]

**10.10.5 ...**

[Reg. 10.10.5 amended by GN R303 of 1 March 1972, by GN R2062 of 23 August 1991 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.10.6 ...**

[Reg. 10.10.6 amended by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

[Reg. 10.10 amended by GN R367 of 27 February 1987 and repealed by GN R904 of 2 July 2002.]

**10.11.1** In every coal mine there shall be in every ventilating district a return airway leading to the main return aircourse of the mine. Each return airway, including the main return aircourse, shall be kept fenced off from disused workings and maintained in a proper state of repair. Every such return airway shall be inspected at intervals not exceeding 14 days by a competent person, who is the holder of an appropriate blasting certificate and has been appointed for the purpose in writing by the manager, and shall, in addition, be inspected by a shift boss or an official of more senior rank at intervals not exceeding three months. The results of the aforementioned inspections shall be entered without delay in a book to be kept for the purpose in an office on surface and such reports shall be countersigned by the manager within three days of entry.

[Reg. 10.11.1 substituted by GN R513 of 1 April 1977 and amended by GN R1352 of 8 July 1988.]

**10.11.2 ...**

[Reg. 10.11.2 repealed by GN R904 of 2 July 2002.]

**10.12 ...**

[Reg. 10.12, previously Reg. 10.12.1, substituted by GN R1352 of 8 July 1988, amended by GN R94 of 15 January 1997 and repealed by GN R905 of 2 July 2002.]

**10.13 ...**

[Reg. 10.13 amended by GN 160 of 1 February 1991, by GN R1237 of 29 August 2003 and by GN R94 of 15 January 1997 and repealed by GN 911 of 8 September 2006.]

**10.14 ...**

[Reg. 10.14 amended by GN R1339 of 22 June 1990 and by GN R94 of 15 January 1997 and repealed by GN 911 of 8 September 2006.]

**10.15 ...**

[Reg. 10.15 amended by GN R367 of 27 February 1987, substituted by GN R1339 of 22 June 1990, amended by GN R2062 of 23 August 1991 and repealed by GN R905 of 2 July 2002]

**10.16 to 10.16.3 inclusive ...**

[Regs. 10.16 to 10.16.3 inclusive repealed by GN R904 of 2 July 2002.]

**10.16.4 ...**

[Reg. 10.16.4 substituted by GN R1339 of 22 June 1990 and repealed by GN R904 of 2 July 2002.]

**10.17 to 10.17.2 inclusive ...**

[Regs. 10.17 to 10.17.2 inclusive repealed by GN R904 of 2 July 2002.]

**10.17.3 ...**

[Reg. 10.17.3 amended by GN R1339 of 22 June 1990 and repealed by GN R904 of 2 July 2002.]

**10.17.4 ...**

[Reg. 10.17.4 amended by GN R1339 of 22 June 1990 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.18 ...**

[Reg. 10.18 amended by GN R367 of 27 February 1987 and by GN R94 of 15 January 1997 and repealed by GN R1305 of 12 November 2004.]

**10.19.1 ...**

[Reg. 10.19.1 amended by GN R303 of 1 March 1972, by GN R2102 of 15 November 1974, by GN R367 of 27 February 1987 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.19.2 and 10.19.3 ...**

[Regs. 10.19.2 and 10.19.3 repealed by GN R904 of 2 July 2002.]

**10.20 ...**

[Reg. 10.20 amended by GN R367 of 27 February 1987 and repealed by GN R904 of 2 July 2002.]

**10.20.1 ...**

[Reg. 10.20.1 amended by GN R94 of 15 January 1997] and repealed by GN R904 of 2 July 2002.]

**10.20.2 and 10.20.3 ...**

[Regs. 10.20.2 and 10.20.3 repealed by GN R904 of 2 July 2002.]

**10.21 ...**

[Reg. 10.21 amended by GN R2101 of 15 November 1974, by GN R367 of 27 February 1987 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.22 ...**

[Reg. 10.22 amended by GN R303 of 1 March 1972, by GN R305 of 1 March 1972, by GN R2101 of 15 November 1974, by GN R2102 of 15 November 1974, by GN R367 of 27 February 1987, by GN R2062 of 23 August 1991 and by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.23 ...**

[Reg. 10.23 amended by GN R367 of 27 February 1987, substituted by GN R2062 of 23 August 1991 and by GN R3083 of 20 December 1991 and repealed by GN R904 of 2 July 2002.]

**10.24 ...**

[Reg. 10.24 amended by GN R94 of 15 January 1997 and repealed by GN R1237 of 29 August 2003.]

**10.24.1 ...**

[Reg. 10.24.1 amended by GN R303 of 1 March 1972 and repealed by GN R1237 of 29 August 2003.]

**10.24.2 and 10.24.3 ...**

[Regs. 10.24.2 and 10.24.3 repealed by GN R1237 of 29 August 2003.]

**10.24.4 ...**

[Reg. 10.24.4 amended by GN R303 of 1 March 1972 and repealed by GN R1237 of 29 August 2003.]

**10.24.5 ...**

[Reg. 10.24.5 repealed by GN R1237 of 29 August 2003.]

**10.24.6 ...**

(a) ...

[Para. (a) amended by GN R94 of 15 January 1997 and repealed by GN R1237 of 29 August 2003.]

(b)

(i). each sample shall be collected over a length of road not less than 50 metres in length;

[Subpara. (i) amended by GN R303 of 1 March 1972.]

(ii). ...

[Subpara. (ii) repealed by GN R1237 of 29 August 2003.]

(iii). ...

[Subpara. (iii) amended by GN R303 of 1 March 1972 and repealed by GN R1237 of 29 August 2003.]

(iv). ...

[Subpara. (iv) amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974 and repealed by GN R1237 of 29 August 2003.]

- (c) each sample shall be well mixed and a representative portion, after drying in the air if necessary, shall be passed through a sieve of 250 micrometres aperture and retained for analysis;

[Para. (c) amended by GN R303 of 1 March 1972.]

- (d) analysis of the sample shall be carried out by the following method or other methods approved by the Principal Inspector of Mines:

[Para. (d) amended by GN R94 of 15 January 1997.]

- (i). The residue of a weighed quantity of dust, after that quantity of dust has been dried at a temperature not exceeding 140°C and the loss of mass attributable to moisture ascertained, shall be heated in an open vessel to a temperature not less than 480°C and not more than 520°C until the coal is completely burnt away. The incinerated residue shall be weighed;

[Subpara. (i) amended by GN R303 of 1 March 1972.]

- (ii). the sum of the masses of moisture and incinerated residue shall be reckoned as incombustible matter and be expressed as a percentage of the total mass of the dust.

[Subpara. (ii) amended by GN R303 of 1 March 1972.]

In every case where unsatisfactory conditions are revealed in the places sampled, the return in terms of regulation 10.24.6(e) shall reflect what remedial action has been taken.

- (e) A record shall be kept of the date and place of each sampling and the results of the tests carried out under regulations 10.24.5(e) and 10.24.6(d). A return shall be sent each month to the Principal Inspector of Mines clearly describing the places sampled and the results of the analyses obtained.

[Para. (e) amended by GN R94 of 15 January 1997.]

[Reg. 10.24.6 amended by GN R94 of 15 January 1997 and repealed by GN R1237 of 29 August 2003.]

**10.24.7** Roads along which coal is moved or transported shall be systematically cleared of any coal spillage and, before any area of the mine is isolated by stoppings, the floor, roof and sides of all roads therein shall be systematically cleared of dust and freshly stonedusted.

**10.24.8** Coal tubs shall be constructed and maintained so as to prevent coal dust escaping through the sides, ends or bottom.

**10.24.9** Stone dust barriers erected for the purpose of suppressing a coal dust explosion shall be of a design and construction approved by the Principal Inspector of Mines and located at such points as the manager, in consultation with the Principal Inspector of Mines, may determine.

[Reg. 10.24.9 amended by GN R94 of 15 January 1997.]

**10.24.10** The shift boss or an official of more senior rank shall report daily in writing, in a book provided for the purpose by the manager, on the measures taken to ensure compliance with regulations 10.24.3, 10.24.7 and 10.24.8 in the section of the workings under his charge.

[Reg. 10.24.10 substituted by GN R513 of 1 April 1977.]

**10.24.11** For the purposes of this regulation-

'**accessible workings**' shall include all workings other than abandoned workings that have had all entrances effectively sealed by stoppings;

'**incombustible matter**' shall include moisture and combined carbon dioxide;

'**road**' shall include all roads of any description in the workings of the mine extending from the shafts, outlets, or inlets, to within 10 metres of the coal face.

[Reg. 10.24.11 amended by GN R303 of 1 March 1972.]

**10.25.1** No internal combustion engine other than a diesel engine shall be used underground in any mine.

**10.25.2** ...

[Reg. 10.25.2 amended by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**10.25.3** ...

[Reg. 10.25.3 repealed by GN R904 of 2 July 2002.]

**10.25.4** ...

[Reg. 10.25.4 amended by GN R2062 of 23 August 1991 and repealed by GN R904 of 2 July 2002.]

**10.25.5 ...**

[Reg. 10.25.5 amended by GN 160 of 1 February 1991 and GN R2062 of 23 August 1991 and repealed by GN R904 of 2 July 2002.]

**10.25.6 ...**

[Reg. 10.25.6 deleted by GN 160 of 1 February 1991.]

**10.25.7** Diesel fuel shall be delivered underground in such a manner that no spillage can take place during delivery. When the fuel is piped underground the pipes shall be drained each time after use. The fuel shall be stored underground only in robust closed containers which do not leak. Except with the written permission of the Principal Inspector of Mines, the quantity of diesel fuel stored underground shall not exceed three days' estimated consumption.

[Reg. 10.25.7 amended by GN R94 of 15 January 1997.]

**10.25.8 ...**

[Reg. 10.25.8 amended by GN R305 of 1 March 1972 and repealed by GN R904 of 2 July 2002.]

**10.25.9** Refuelling of diesel powered mobile units underground shall be carried out only at such properly established filling stations.

**10.25.10 ...**

[Reg. 10.25.10 amended by GN R305 of 1 March 1972, substituted by GN 160 of 1 February 1991 and repealed by GN R1237 of 29 August 2003.]

**10.25.11** No unauthorised person shall enter any filling station and no person shall smoke or use an open light in the vicinity of any filling station.

**10.25.12** In every mine other than a fiery mine suitable notices prohibiting persons from smoking or using any open light within the vicinity of a filling station shall be kept posted up and maintained at the entrance to the filling station.

**10.25.13 ...**

[Reg. 10.25.13 repealed by GN R1237 of 29 August 2003.]

**10.25.14** In every coal mine every mobile diesel powered unit underground shall, when not in use, be kept in a place approved by the manager.

## **CHAPTER 11**

### **PRECAUTIONS AGAINST FIRE**

#### **11.1 to 11.5 inclusive ...**

[Regs. 11.1 to 11.5 inclusive repealed by GN R1237 of 29 August 2003.]

#### **11.6 ...**

[Reg. 11.6 amended by GN R94 of 15 January 1997 and repealed by GN R1237 of 29 August 2003.]

#### **11.7 to 11.10 inclusive ...**

[Regs. 11.7 to 11.10 inclusive repealed by GN R1237 of 29 August 2003.]

#### **11.11 At every mine and at every works any enclosure containing stationary electric motors, switchgear or other electrical apparatus, excluding telephone, bells and incandescent lamps, shall as far as possible be built and fitted with non-flammable materials.**

[Reg. 11.11 amended by GN R305 of 1 March 1972.]

## **CHAPTER 12 ...**

[Chapter 12 amended by GNs R303, R304 and R305 of 1 March 1972 and by GN R2103 of 15 November 1974, substituted by GN R2706 of 23 November 1990, amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R1305 of 12 November 2004.]

## **CHAPTER 13 ...**

[Chapter 13 amended by GN R303 of 1 March 1972, by GN R2102 of 15 November 1974, by GN R537 of 21 March 1980, by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R1305 of 12 November 2004.]

## CHAPTER 14

### STATISTICAL RETURNS

**14.1.1** The owner or manager of a mine or works shall forward to the office of the *Chief Inspector* monthly, or at such greater intervals as the *Chief Inspector* may determine, complete and correct returns of the work accomplished, the persons employed and the results obtained and also the number of persons employed on Sundays, Christmas Day, Good Friday, Day of the Covenant and on Republic Day.

[Reg. 14.1.1 substituted by GN R305 of 1 March 1972 and amended by GN R94 of 15 January 1997.]

**14.1.2** Every purchaser, seller or exporter of minerals, whether acting as agent or principal, shall forward monthly to the office of the *Chief Inspector* complete and correct returns for the preceding month of the purchases, sales and exports transacted by him during that month.

[Reg. 14.1.2 amended by GN R94 of 15 January 1997.]

**14.1.3** The returns must reach the office of the *Chief Inspector* not later than the 15th of the month following the period in respect of which it is made and must be written intelligibly in such form as may from time to time be prescribed for that purpose by the *Chief Inspector*.

[Reg. 14.1.3 amended by GN R94 of 15 January 1997.]

**14.2** Persons who, in terms of the preceding regulation, have to make returns may obtain the necessary forms in advance at the office of the *Chief Inspector*, either by personal request or written application.

[Reg. 14.2 amended by GN R94 of 15 January 1997.]

**14.3** The owner or manager of a mine or works shall furnish the *Chief Inspector* yearly and in such form as may from time to time be prescribed by the *Chief Inspector* with returns respecting stores, employees, salaries, wages and machinery. Such owner or manager shall also provide the *Chief Inspector* at his request with such other returns and data as may be reasonably required. Each such return and other data shall be furnished on or before a date fixed by the *Chief Inspector* and specified on the prescribed forms or otherwise notified in writing.

[Reg. 14.3 amended by GN R94 of 15 January 1997.]

**14.4** The owner, agent or local representative of every mining concern shall also file with the *Chief Inspector* immediately on publication a copy of each annual report, including the balance sheet and profit and loss account, issued by the directors of such concern, and also a copy of the liquidator's reports on liquidation.

[Reg. 14.4 amended by GN R94 of 15 January 1997.]

**14.5** The *Chief Inspector* may require that the accuracy of the returns mentioned in this chapter be verified on oath.

[Reg. 14.5 amended by GN R94 of 15 January 1997.]

**14.6 ...**

[Reg. 14.6 inserted by GN R537 of 21 March 1980 and deleted by GN R3083 of 20 December 1991.]

## **CHAPTER 15**

### **LIGHTING, SAFETY LAMPS AND CONTRABAND**

**15.1** No person shall work or travel or cause or permit any other person to work or travel in any unilluminated part of a mine or works unless he or such other person carries a light.

**15.2 ...**

[Reg. 15.2 repealed by GN R904 of 2 July 2002.]

**15.3.1 ...**

[Reg. 15.3.1 repealed by GN R904 of 2 July 2002.]

**15.3.2** At all times underground and at night on the surface the leading end of every moving train and every self-propelled mobile machine shall be provided with a light of sufficient intensity shining in the direction of travel to enable the driver to identify any dangerous conditions ahead and to stop the train or machine timeously: Provided that the average light intensity in the direction of travel shall not be less than 10 lux at a distance of 20 metres.

[Reg. 15.3.2 substituted by GN 160 of 1 February 1991.]

**15.4.1 to 15.4.3 inclusive ...**

[Regs. 15.4.1 to 15.4.3 inclusive substituted by GN R367 of 27 February 1987, amended by GN R2062 of 23 August 1991 and repealed by GN R905 of 2 July 2002.]

**15.5.1 to 15.5.3 inclusive ...**

[Regs. 15.5.1 to 15.5.3 inclusive amended by GN R94 of 15 January 1997 and repealed by GN R905 of 2 July 2002.]

**15.6.1 ...**

[Reg. 15.6.1 amended by GN R94 of 15 January 1997 and repealed by GN R905 of 2 July 2002.]

**15.6.2 ...**

[Reg. 15.6.2 repealed by GN R905 of 2 July 2002.]

**15.7.1 ...**

[Reg. 15.7.1 amended by GN R94 of 15 January 1997 and repealed by GN R905 of 2 July 2002.]

**15.7.2 and 15.7.3 ...**

[Regs. 15.7.2 and 15.7.3 repealed by GN R905 of 2 July 2002.]

**15.8 At every fiery mine-**

**15.8.1 and 15.8.2 ...**

[Regs. 15.8.1 and 15.8.2 repealed by GN R905 of 2 July 2002.]

**15.8.3 ...**

[Reg. 15.8.3 substituted by GN R305 of 1 March 1972 and repealed by GN R905 of 2 July 2002.]

**15.8.4 ...**

[Reg. 15.8.4 amended by GN R94 of 15 January 1997 and repealed by GN R905 of 2 July 2002.]

**15.8.5 and 15.9.1 ...**

[Regs. 15.8.5 and 15.9.1 repealed by GN R905 of 2 July 2002.]

**15.9.2 ...**

[Reg. 15.9.2 amended by GN R94 of 15 January 1997 and repealed by GN R905 of 2 July 2002.]

**15.10 ...**

[Reg. 15.10 repealed by GN R905 of 2 July 2002.]

**15.10.1 ...**

[Reg. 15.10.1 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R905 of 2 July 2002.]

**15.10.2 ...**

[Reg. 15.10.2 amended by GN R94 of 15 January 1997 and repealed by GN R905 of 2 July 2002.]

**15.10.3 ...**

[Reg. 15.10.3 amended by GN R304 of 1 March 1972 and by GN R1352 of 8 July 1988 and repealed by GN R905 of 2 July 2002.]

**15.10.4 ...**

[Reg. 15.10.4 repealed by GN R905 of 2 July 2002.]

**15.10.5 and 15.10.6 ...**

[Regs. 15.10.5 and 15.10.6 repealed by GN R905 of 2 July 2002.]

**15.10.7 ...**

[Reg. 15.10.7 amended by GN R303 of 1 March 1972 and repealed by GN R905 of 2 July 2002.]

**15.10.8 ...**

[Reg. 15.10.8 repealed by GN R905 of 2 July 2002.]

**15.10.9 ...**

[Reg. 15.10.9 amended by GN R1352 of 8 July 1988 and repealed by GN R905 of 2 July 2002.]

**15.11 ...**

[Reg. 15.11 amended by GN R2062 of 23 August 1991 and repealed by GN R905 of 2 July 2002.]

**15.11.1 ...**

[Reg. 15.11.1 amended by GN R1352 of 8 July 1988 and repealed by GN R905 of 2 July 2002.]

**15.11.2 ...**

[Reg. 15.11.2 amended by GN R2062 of 23 August 1991 and repealed by GN R905 of 2 July 2002.]

## **CHAPTER 16**

### **WINDING**

#### **The Conveyance of persons in shafts and winzes**

**16.1** No person shall ride or cause or permit any other person to ride in or on a conveyance operated by a winding plant, unless it is permitted by a prescribed permit or by regulation 16.94.

[Reg. 16.1 substituted by GN 160 of 1 February 1991, amended by GN R3083 of 20 December 1991 and by GN R2449 of 24 December 1993.]

**16.2.1** Except as provided for in regulation 16.94, the manager of a mine shall not use a winding plant nor permit a winding plant to be used unless he is in possession of a prescribed permit issued by a Principal Inspector of Mines.

[Reg. 16.2.1 substituted by GN R305 of 1 March 1972, amended by GN 160 of 1 February 1991, deleted by GN R3083 of 20 December 1991, inserted by GN R2449 of 24 December 1993 and amended by GN R94 of 15 January 1997.]

**16.2.2** Every application for the use of a winding plant shall be made to the Principal Inspector of Mines on the form obtainable from him.

[Reg. 16.2.2 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997.]

**16.2.3** The Principal Inspector of Mines may grant a permit to use such winding plant, subject to conditions as he may specify.

[Reg. 16.2.3 amended by GN R94 of 15 January 1997.]

**16.2.4** ...

[Reg. 16.2.4 deleted by GN R3083 of 20 December 1991.]

**16.2.5** The permit shall be kept at the mine office and a legible copy thereof shall be displayed in a suitable glazed frame in the engine room.

**16.2.6** ...

[Reg. 16.2.6 deleted by GN R3083 of 20 December 1991.]

**16.2.7** The Principal Inspector of Mines may direct that any regulation contained in Chapter 17 of these Regulations shall apply to an automatic or semi-automatic winding plant by giving written notice to that effect to the manager, with specific reference to the regulation concerned, whereupon such regulation shall apply to such winding plant.

[Reg. 16.2.7 inserted by GN R2703 of 11 December 1981 and amended by GN R3083 of 20 December 1991.]

**16.3** The Principal Inspector of Mines may carry out specific or periodic tests or inspections of any winding plant.

[Reg. 16.3 amended by GN R814 of 13 March 1992 and by GN R94 of 15 January 1997.]

**16.4** In calculating the total mass of persons for the purpose of regulation 16.6 and regulations 16.30.2 to 16.40.2 inclusive, 75 kilograms shall be allowed for each person.

[Reg. 16.4 amended by GN R303 of 1 March 1972 and substituted by GN R1325 of 12 November 1999.]

### **Design of winding engine**

**16.5** The winding engine shall be such that-

**16.5.1** when running at various speeds with light or heavy loads it can be readily slowed and stopped and after being stopped it can be restarted immediately in either direction; and

**16.5.2** it can lift from the bottom to the top of the shaft or winze the maximum unbalanced load on one drum. This provision shall not apply where other means exist enabling persons employed below to reach the top of the shaft or winze.

**16.6.1** Each winding drum or winding sheave shall be provided with an adequate brake or brakes which shall be kept in proper working order.

**16.6.2** For drum type of winding engines where the rope is securely attached to the winding drum the brake or brakes, without the assistance of any counterbalancing effect of any load supported by the other drum, shall be capable of holding without slipping a load on the rope equivalent to the combined mass of-

- (a) the conveyance and its attachments;
- (b) the maximum permitted mass of mineral, or double the maximum permitted mass of persons, or the maximum permitted mass of material together with double the maximum permitted mass of persons when both material and persons are conveyed simultaneously, whichever is the greatest; and

[Para. (b) amended by GN R303 of 1 March 1972.]

- (c) the mass of the rope between the sheave and the conveyance, when the conveyance is at a point in the shaft which produces the maximum torque on the brakes.

[Para. (c) amended by GN R303 of 1 March 1972.]

[Reg. 16.6.2 amended by GN R303 of 1 March 1972.]

**16.6.3** For a friction drive or sheave type winding engine where the rope or ropes are not securely attached to the winding drum or winding sheave, the brake or brakes shall be capable of holding without slipping the maximum static out-of-balance load which occurs when one of the conveyances, or where a counterpoise is used the conveyance-

- (a) is loaded with the permitted mass of mineral; or

[Para. (a) amended by GN R303 of 1 March 1972.]

(b) is loaded with double the mass of the permitted number of persons; or

[Para. (b) amended by GN R303 of 1 March 1972 and by GN 160 of 1 February 1991.]

(c) is loaded with double the permitted mass of material together with double the mass of the permitted number of persons when both material and persons are conveyed simultaneously; or

[Para. (c) amended by GN R303 of 1 March 1972.]

(d) is removed from its bridle.

[Para. (d) amended by GN R303 of 1 March 1972.]

[Reg. 16.6.3 substituted by GN R2101 of 15 November 1974.]

**16.6.4** Every winding drum shall have flanges or horns, and if conical or spiral, such other appliances to prevent the rope from slipping off or coiling unevenly.

**16.6.5** Except for friction drive or sheave type of winding engines, there shall not be less than three turns of rope upon the drum when the cage, skip or other means of conveyance is at the lowest point in the shaft or winze from which hoisting is effected and the end of the rope where applicable shall be fastened securely round the arm or the shaft of the drum.

**16.6.6** For friction drive or sheave type winding engines where no part of the rope is securely attached to the winding drum or sheave, there shall be no dangerous slipping of the rope on such drum or sheave under any possible working conditions.

**16.6.7** Every winding drum at the driver's right hand side shall have overlay rope; where only one drum is used it shall have overlay rope.

**16.6.8** The reversing lever of every steam or air operated winding engine and the control lever of every electrically operated winding engine shall follow the overlay rope in the direction of travel.

**16.6.9** Where a hand-operated brake lever is provided on any winding engine it shall be pulled towards the driver to apply the brakes.

**16.6.10** The relief and throttle valve levers of every steam or air operated winding engine shall be in a central position.

- 16.6.11** The operating mechanism of the clutch of every winding drum shall be provided with a locking arrangement which shall be used to prevent the inadvertent withdrawal of the clutch. If the clutch is not clearly visible from the driver's operating position, means shall be provided to indicate to the driver at all times the extent to which the clutch is engaged or disengaged.
- 16.6.12** It shall be impossible to unclutch any winding drum unless the brake or brakes of such drum are fully applied and it shall be impossible to release the brake or brakes of such drum until the clutch is fully engaged and securely locked.
- 16.6.13** All bolts and fittings of winding drums, brakes and clutches shall be rendered secure by means of suitable locking devices.
- 16.7** In addition to any marks on the rope, every winding engine shall be provided with reliable depth indicators conveniently situated, which will at all times show clearly and accurately to the winding-engine driver at his operating position the position of the cage, skip or other means of conveyance and where a reduction in winding speed is necessary. The pointer of the dial indicator on the driver's right hand side shall move in a clockwise direction when lowering, and the pointer of a post and spiral indicator shall move up or down as the conveyance moves up or down. On every winding engine where the rope is driven by friction, every single-drum winding engine and every winding engine having two drums permanently fixed on one shaft, only one indicator need be provided.
- 16.8** Where the length of wind below the uppermost landing place for persons exceeds 100 metres, adequate provision shall be made whereby the winding-engine driver is warned of the arrival of the ascending cage, skip or other means of conveyance at a point in the shaft, the distance of which from the uppermost landing place for persons is not less than the equivalent of three revolutions of the drum or sheave of the winding engine: Provided that in the case of a single drum winder a similar device shall be fitted to warn the winding engine driver of the approach of the descending conveyance to the lowest landing place for persons.

[Reg. 16.8 amended by GN R303 of 1 March 1972 and by GN 160 of 1 February 1991.]

- 16.9** Every winding engine shall be fitted with at least one effective automatic overwind prevention device, as well as an effective automatic overspeed prevention device.

[Reg. 16.9 substituted by GN R2703 of 11 December 1981.]

- 16.9.2.1** The *employer* must install a device or combination of devices that detect slack rope on every winding plant which the rope is attached to the drum operating in a vertical shaft, excluding a shaft in the course of being sunk.

[Reg. 16.9.2.1 inserted by GN R802 of 19 June 1998.]

**16.9.2.2** The device or combination of devices contemplated in regulation 16.9.2.1 must on detecting a slack rope condition either automatically halt all winding operations in the vertical shaft safely or warn all winding engine drivers operating in such shaft of the slack rope condition.

[Reg. 16.9.2.2 inserted by GN R802 of 19 June 1998.]

**16.9.2.3** The *employer* must establish an effective and safe procedure for rectifying any slack rope procedure.

[Reg. 16.9.2.3 inserted by GN R802 of 19 June 1998.]

**16.9.2.4** All winding operations in the vertical shaft must cease when a slack rope condition occurs, except such operations necessary for rectifying the slack rope condition authorised by the engineer or person appointed in terms of regulation 2.13.2.

[Reg. 16.9.2.4 inserted by GN R802 of 19 June 1998.]

**16.9.2.5** No winding operations may resume, except operations permissible in terms of regulation 16.9.2.4, until the slack rope condition has been rectified.

[Reg. 16.9.2.5 inserted by GN R802 of 19 June 1998.]

**16.10** Any winding engine with a permitted speed of over five metres per second shall be fitted with a speed indicator and a tachograph, which shall be used and maintained in efficient working order. The speed indicator shall be so situated that the winding speed can be easily read at all times by the winding-engine driver from his operating position.

[Reg. 16.10 amended by GN R303 of 1 March 1972.]

## **Construction of winding plant conveyances**

**16.11** Every cage used for the regular conveyance of persons shall be of substantial construction and shall be provided with a proper roof or cover and doors. The cage shall be enclosed in such a manner as to prevent any portion of the body of a person therein from accidentally coming into contact with the timbering or other equipment in the shaft or winze or the sides of the shaft or winze. The doors shall be securely attached to the cage and so arranged that they cannot be opened outwards or accidentally. Provision shall be made for adequate ventilation through the cage.

**16.12** Every skip or kibble, used for the regular conveyance of persons in a vertical or steeply inclined shaft or winze shall be provided with a substantial roof or cover that will safeguard the occupants.

**16.13** Every conveyance used for examining, repairing or doing other work in a vertical or steeply inclined shaft or winze shall be provided with a substantial roof or cover and shall be sufficiently enclosed to protect any person from accidentally falling out.

**16.14** Where the roof or cover of a cage, skip or other means of conveyance is used as a platform for persons engaged in examining, repairing or doing other work in a vertical or steeply inclined shaft or winze, the persons so engaged shall be protected by a hood or cover immediately above them. Such hood or cover shall be removed as soon as this work is completed.

[Reg. 16.14 amended by GN 160 of 1 February 1991.]

**16.15** No trailer-

- (a) shall be used in a shaft or winze where persons are regularly conveyed;
- (b) shall be attached to a conveyance when such conveyance is used for transportation of persons; and
- (c) shall be used for the regular conveyance of persons, unless it is allowed by the permit referred to in section 33(1) of the Act: Provided that for the purpose of this regulation, 'trailer' shall mean any conveyance operated by a winding engine and which is attached to but not forming an integral part of the permanent conveyance, and of which the lateral movement is restrained by means of guide shoes or wheels running on or in guides or tracks.

[Reg. 16.15 amended by GN 160 of 1 February 1991 and by GN R3083 of 20 December 1991.]

**Connection to winding plant conveyances**

**16.16** No rope, bar, link, chain or other connection shall be used for winding purposes unless it is of good quality and manufacture, free from any visible defect and of adequate calculated strength.

[Reg. 16.16 amended by GN R2703 of 11 December 1981.]

**16.17** The connection between-

- (a) any winding rope and the cage, skip, bucket, kibble, or other means of conveyance or counterpoise;

[Para. (a) amended by GN R303 of 1 March 1972.]

- (b) any balance rope or tail rope and the conveyance or counterpoise; and

[Para. (b) amended by GN R303 of 1 March 1972.]

- (c) any connecting rope and the conveyance, any trailer or other attached conveyance;

[Para. (c) amended by GN 160 of 1 February 1991.]

Shall be such that no accidental disconnection can take place.

**16.18** At intervals of not more than six months the connections between-

(a) any winding rope and the conveyance or counterpoise;

[Para. (a) amended by GN R303 of 1 March 1972.]

(b) the conveyance and any trailer or other attached conveyance; and

[Para. (b) amended by GN 160 of 1 February 1991.]

(c) any balance rope or tail rope and the conveyance or counterpoise, shall be annealed or given proper heat treatment or shall be discarded and replaced. With connections of a class of steel approved by the *Chief Inspector*, the interval for heat treatment may be extended with the written permission of the *Chief Inspector*.

[Para. (c) amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997.]

**16.19** A proper record shall be kept of the heat treatment and working life of the connections referred to in regulation 16.18 and an engineer shall add to the record his report on the method and procedure followed in such treatment and his comments on the results. All such connections and their component parts shall be marked clearly for the purpose of identification.

[Reg. 16.19 amended by GN 160 of 1 February 1991.]

### **Winding ropes**

**16.20.1** Any winding rope must be manufactured by a manufacturer accredited in terms of ISO 9001: 'Quality Systems-Model for quality assurance in design, development, production, installation and servicing.'

**16.20.2** The diameter and construction of the winding rope must be suited to the diameter of the sheaves and drums forming part of the winding plant.

[Reg. 16.20 substituted by GN R1325 of 12 November 1999.]

**16.21** A winding rope which has been joined or reinforced in any manner may not be used as part of a winding plant without the written permission of the Principal Inspector of Mines.

[Reg. 16.21 amended by GN R537 of 21 March 1980 and by GN R94 of 15 January 1997 and substituted by GN R1325 of 12 November 1999.]

**16.22 ...**

[Reg. 16.22 substituted by GN R537 of 21 March 1980 and deleted by GN R1325 of 12 November 1999.]

**16.23.1** Any winding rope, balance rope or guide rope which has previously been in use may not be re-used unless the breaking strength of a specimen cut from the end of such rope has been determined by a destructive test at an approved rope testing station to comply with these Regulations.

**16.23.2** Any winding rope, balance rope or guide rope which has previously been in use may not be re-used unless the engineer is in possession of the documented history of the working life of the rope.

[Reg. 16.23 amended by GN R94 of 15 January 1997 and substituted by GN R1325 of 12 November 1999.]

**16.24** For every winding plant in use there must be in reserve and ready for use at all times a spare winding rope that complies with these Regulations. One such spare rope may be kept in reserve for more than one winding plant if that rope is suitable for use on such other winding plants.

[Reg. 16.24 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997 and substituted by GN R1325 of 12 November 1999.]

**16.25** No winding rope, balance rope or guide rope may be installed unless the manager is in possession of a certificate not older than two years confirming that the breaking strength, as determined by a destructive test at an approved rope testing station, complies with these Regulations.

[Reg. 16.25 amended by GN R303 of 1 March 1972 and substituted by GN R1325 of 12 November 1999.]

**16.26 ...**

[Reg. 16.26 amended by GN R303 of 1 March 1972, by GN R94 of 15 January 1997 and deleted by GN R1325 of 12 November 1999.]

**16.27.1** Any newly installed winding rope, balance rope or guide rope and the rope connections of any such rope, must be carefully examined by the engineer and may not be used for the raising or lowering of persons until the conveyance loaded with the maximum permitted mass has been run for two complete test trips between the highest and lowest stopping places ordinarily in use.

**16.27.2** The engineer, in addition to recording the results in terms of regulation 16.79, must record and sign the results of the examination in terms of regulation 16.27.1 immediately in the Driver's Log Book provided in terms of regulation 16.81.

[Reg. 16.27 amended by GN R303 of 1 March 1972, by GN R2102 of 15 November 1974 and substituted by GN R1325 of 12 November 1999.]

**16.28.1** When any winding rope, balance rope or guide rope is installed, the particulars specified in paragraphs (a) and (b) of the regulation 16.79.2 must be submitted to the Principal Inspector of Mines.

**16.28.2** When any winding rope in use is replaced, the reasons for discard, the life in terms of winding cycles, the time in use and such other particulars regarding that winding rope as the Principal Inspector of Mines may require must be submitted to the Principal Inspector of Mines.

[Reg. 16.28 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997 and substituted by GN R1325 of 12 November 1999.]

**16.29 ...**

[Reg. 16.29 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997 and deleted by GN R1325 of 12 November 1999.]

**16.30.1** For the purpose of regulations 16.31 to 16.40 inclusive-

**'approved rope testing station'** means a testing station approved by the Chief Inspector of Mines for the destructive testing of ropes used in a winding plant;  
**'attached load'** means everything suspended from or attached to the winding rope and includes the portion of any balance rope and one half of any tail carriage and one half of any sheave which contributes to load at the termination of the winding rope;

**'attachments'** include everything suspended from or attached to the conveyance other than the winding rope and includes any balance rope;

**'balance rope'** includes tail rope, balance rope or balance chain;

**'effective length of rope'** means the length of winding rope between the centre of sheave or drum in the headgear and the lowest working point of the conveyance;

**'initial breaking strength'** means the breaking strength of the rope determined by the destructive testing of a sample immediately after the manufacture of the rope;

**'nominal rope diameter'** means the rope diameter specified by the manufacturer;

**'suspended load'** means the sum of the attached load and the mass of the effective length of rope;

**'winding cycle'** means a full or partial return trip starting with a conveyance at the bank level and ending with the same conveyance returning to the bank level.

[Reg. 16.30.1 amended by GN R303 of 1 March 1972 and substituted by GN R1325 of 12 November 1999.]

**16.30.2** In determining, in accordance with the provisions of regulations 16.32.1 to 16.40.2 inclusive, the minimum allowable breaking strength of any rope used in a winding plant, the weight in Newtons of any mass carried by the rope must be obtained by multiplying this mass in kilograms by a factor of 9,81.

[Reg. 16.30.2 amended by GN R303 of 1 March 1972 and by GN R1325 of 12 November 1999.]

**16.31 ...**

[Reg. 16.31 amended by GN R303 of 1 March 1972 and deleted by GN R1325 of 12 November 1999.]

**16.32.1** Where a conveyance is suspended by two or more winding ropes, such ropes must be of equal nominal rope diameter and approximate strength.

**16.32.2** Arrangements must be made to equalize the tension in the ropes referred to in regulation 16.32.1.

**16.32.3** In calculating rope selection factors for purposes of regulation 16.32.1, each winding rope must be assumed to carry an equal share of the attached load.

[Reg. 16.32 amended by GN R303 of 1 March 1972 and substituted by GN R1325 of 12 November 1999.]

**16.33** The condition of a winding rope or balance rope must be assessed in accordance with the South African Bureau of Standards Code of Practice for the Condition Assessment of Steel Wire Ropes on Mine Winders, SABS 0293 as amended and the rope may not be used if the condition thus assessed at that point in the rope has reached the discard criteria.

[Reg. 16.33 amended by GN R303 of 1 March 1972 and substituted by GN R1325 of 12 November 1999.]

**Exemption from regulation 16.34.1 may be granted until SABS 0294 has been approved**

**16.34.1** Where a winding system operating in a vertical shaft and not using a balance rope is such that it allows for the periodic testing of the winding rope as required by regulation 16.41.1.1, the winding rope must have a breaking strength at installation of not less than-

- (a) eight times the attached load; and
- (b) four and a half times the suspended load.

[Reg. 16.34.1 substituted by GN R1325 of 12 November 1999.]

**16.34.2** Despite the provisions of regulations 16.34.1 and 16.37, where a winding system operating in a vertical shaft and not using a balance rope-

- (a) allows for the periodic testing of the winding rope as required by regulation 16.41.1.1; and
- (b) complies with the South African Bureau of Standards Code of Practice for Performance, Operation, Testing and Maintenance of Drum Winders relating to Rope Safety, SABS 0294, as amended, the winding rope must have a breaking strength at installation of not less than  $25000/(4000 + L)$  times the suspended load where L is equal to the effective length of the winding rope in metres.

[Reg. 16.34.2 substituted by GN R1325 of 12 November 1999.]

**16.34.3** Where a winding plant operating in an incline shaft allows for the testing of the winding rope as required by regulation 16.41.1.1, the winding rope must have a breaking strength not less than-

- (a) ten times the incline component of the attached load; and
- (b) five times the incline component of the suspended load.

[Reg. 16.34.3 substituted by GN R1325 of 12 November 1999.]

**16.34.4** 4.5 times the effective combined weight of the length of winding rope, the conveyance and its attachments and the maximum permitted load of mineral.

[Reg. 16.34.4 amended by GN R303 of 1 March 1972.]

**16.35** Where a winding plant using a balance rope or ropes does not allow for the periodic testing of the winding rope or ropes as required by regulation 16.41.1.1 the breaking strength of the rope must not be less than 8.1 times the suspended load, provided that this factor may be reduced by 0.00135 for every metre of the effective length of rope, but the factor must not be less than-

- (a) 6.75 where the conveyance is suspended by a single winding rope; or
- (b) 6.19 where the conveyance is suspended by 2 or 3 winding ropes; or
- (c) 5.62 where the conveyance is suspended by 4 or more winding ropes.

[Reg. 16.35 amended by GN R303 of 1 March 1972 and substituted by GN R1325 of 12 November 1999.]

**16.35.1 and 16.35.2 ...**

[Regs 16.35.1 and 16.35.2 amended by GN R303 of 1 March 1972 and deleted by GN R1325 of 12 November 1999.]

**16.36 ...**

[Reg. 16.36 amended by GN R303 of 1 March 1972 and deleted by GN R1325 of 12 November 1999.]

**16.36.1 and 16.36.2 ...**

[Regs 16.36.1 and 16.36.2 [sic] amended by GN R303 of 1 March 1972 and deleted by GN R1325 of 12 November 1999.]

**16.37** Where a winding system operating in a vertical shaft and not using a balance rope allows for the periodic testing of the winding ropes as required by regulation 16.41.1.1 and each conveyance is suspended by two or more winding ropes in conjunction with a rope-tension compensating system which is constructed in such a way that the failure of one rope will not result in a momentary lowering of the force acting in any other rope, the breaking strength of the winding ropes at installation must be as specified in regulation 16.34.1 (a) or 0,95 times that specified in regulation 16.34.1 (b), whichever is the greater.

[Reg. 16.37 amended by GN R303 of 1 March 1972 and substituted by GN R1325 of 12 November 1999.]

**16.38 ...**

[Reg. 16.38 amended by GN R303 of 1 March 1972 and deleted by GN R1325 of 12 November 1999.]

**16.39** A balance rope must not be used if its breaking strength at installation is less than five times the combined weight of the balance rope and one half of any tail carriage and sheave.

[Reg. 16.39 amended by GN R303 of 1 March 1972 and substituted by GN R1325 of 12 November 1999.]

**16.40.1** The breaking strength of a guide rope used in a winding system must not be less than five times the combined weight of the rope and its tensioning weight.

**16.40.2** Any rope which is used to raise or lower a stage in a shaft must have a breaking strength at installation of not less than 4,5 times the combined weight of the effective length of rope and its share of the attached load.

[Reg. 16.40 amended by GN R303 of 1 March 1972 and substituted with regs 16.40.1 and 16.40.2 by GN R1325 of 12 November 1999.]

**16.41.1.1** A sample of every winding rope in use must be cut from the end attached to the conveyance or counterweight at intervals not exceeding six months unless the winding system does not allow shortening of the winding rope. The length of the sample must be as specified by an approved rope testing station.

[Reg. 16.41.1.1, previously reg. 16.41.1, amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974 and substituted by GN R1325 of 12 November 1999.]

**16.41.1.2** Where winding ropes are connected to a compensating sheave on the conveyance or counterweight, that part of the ropes that is in contact with the sheave must be cut off and the ropes re-terminated at intervals not exceeding 3 months.

[Reg. 16.41.1.2 inserted by GN R1325 of 12 November 1999.]

**16.41.2** The manager must send the sample of the rope cut off in terms of regulation 16.41.1.1 within two weeks to an approved rope testing station where the breaking strength and general condition must be determined.

[Reg. 16.41.2, previously reg. 16.41.2.1, amended by GN R303 of 1 March 1972 and substituted by GN R1325 of 12 November 1999.]

**16.41.3** The approved rope testing station must provide the manager with a certificate showing the results of the test performed in terms of regulation 16.41.2.

[Reg. 16.41.3, previously reg. 16.41.2.2, substituted by GN R1325 of 12 November 1999.]

**16.41.4** If the sample of the winding rope received at the approved rope testing station is in a condition not permitting a satisfactory test, the manager must upon request of the approved rope testing station provide a new sample.

[Reg. 16.41.4, previously reg. 16.41.2.3, substituted by GN R1325 of 12 November 1999.]

### **Winding plant signalling arrangements**

**16.42.1** Every shaft in which winding is carried on, other than a shaft in the course of being sunk, shall be provided with some efficient signalling arrangements in respect of each winding plant for interchanging distinct and definite signals between-

- (a) the winding-engine driver and the bank; and
- (b) the winding-engine driver and every established point below the bank from which winding is carried on.

Where persons are regularly conveyed in such shaft and the signalling arrangements are operated by electricity, the provisions of regulation 16.43 shall be complied with;

**16.42.2** every shaft where persons travel on or in the conveyance while carrying out any examination, repair or other work shall be provided with some efficient means, approved by the Principal Inspector of Mines whereby the persons doing such examination or work can signal effectively from any depth in the shaft to the winding-engine driver;

[Reg. 16.42.2 amended by GN R814 of 13 March 1992 and by GN R94 of 15 January 1997.]

- 16.42.3** every inclined shaft in the course of being sunk shall be provided with some efficient signalling arrangement in respect of each winding plant for interchanging distinct and definite signals between-
- (a) the winding-engine driver and the bank; and
  - (b) the winding-engine driver and every established intermediate landing station below the bank; and
  - (c) the winding-engine driver and a point not more than 40 metres from the bottom of the shaft. When this point is more than 15 metres from the bottom of the shaft, some efficient signalling arrangements shall also be provided and used for signalling from the bottom of the shaft to this point; and

[Para. (c) amended by GN R303 of 1 March 1972.]

- 16.42.4** Every vertical shaft in the course of being sunk shall be provided with two separate means for each winding plant whereby persons employed in the sinking process can signal effectively from the bottom of the shaft and from any depth in the shaft to the winding-engine driver and there shall also be provided in respect of each winding plant an efficient signalling arrangement for interchanging distinct and definite signals between the winding-engine driver and the bank and between the winding-engine driver and every established intermediate landing station below the bank.

[Reg. 16.42 amended by GN R537 of 21 March 1980.]

- 16.43** At every shaft and winze, other than a shaft or winze in the course of being sunk, where persons are regularly conveyed and where the signalling arrangements are operated by electricity, the following provisions, except as provided for in regulation 16.44, shall be observed in respect of each winding plant used for the raising or lowering of persons-

- 16.43.1** There shall be provided and maintained in good working order two separate, independent, and efficient signalling arrangements, hereinafter referred to as the locked-bell system and the call-bell system, which shall be used for transmitting signals.

- 16.43.2** The locked-bell system shall be for the interchange of signals between-

- (a) the winding-engine driver and the bank; and
- (b) the winding-engine driver and every established point below the bank from which winding is normally carried on, but it shall not enable the banksman to signal on this system to anyone but the winding-engine driver.

- 16.43.3** The system shall be arranged so that the winding-engine driver can easily distinguish between signals received from the bank and signals from below the bank.

**16.43.4** The system shall further be arranged and maintained so as to prevent as far as possible signals being given by unauthorised persons. The signal operating mechanism at the bank and at all points below the bank shall be securely enclosed in a metal casing of substantial construction and shall be kept locked when not in actual use. The key shall be removable and when not required shall be removed and retained by the banksman, onsetter or other authorised person: Provided that other locking arrangements may be used if approved by the Principal Inspector of Mines.

[Reg. 16.43.4 amended by GN R94 of 15 January 1997.]

**16.43.5** There shall be in use a device which automatically prevents the conveyance or conveyances being raised or lowered after the winding-engine driver has given a signal on the circuit of the locked-bell system provided for interchanging signals with the bank or on the circuit of the locked-bell system provided for interchanging signals with the established points below the bank from which winding is normally carried on, until he has received a signal on each of the circuits on which he gave a signal.

**16.43.6** The call-bell system shall enable signals to be transmitted-

- (a) to the winding-engine driver from the bank; and
- (b) to the winding-engine driver from every established point below the bank from which winding is normally carried on, and shall also enable signals to be interchanged between the bank and every established point below the bank from which winding is normally carried on, but it shall not enable the winding-engine driver to transmit signals on this system.

**16.43.7** The signal operating mechanism of the call-bell system shall be accessible to any person to transmit the signals 10 followed by 'station signal' and 'one long ring' referred to in regulation 16.45, but it shall not be used for any other purpose: Provided that the banksman or onsetter or any person duly authorised by the manager may use the system to indicate the station at which the conveyance is required and subject to the approval of the regional director [sic] to transmit special signals.

**16.43.8** The tone of the bells of the call-bell shall be such as to be easily distinguishable from that of the bells of the locked-bell system.

**16.43.9** In a shaft or winze where efficient telephonic intercommunication is provided between the bank and every established landing station for persons below the bank, it shall be necessary to provide only one call-bell system in respect of all the winding plants serving such shaft or winze.

**16.44** Signalling arrangements other than those required by regulation 16.43 may be used with the written approval of the Principal Inspector of Mines.

[Reg. 16.44 amended by GN R94 of 15 January 1997.]

**16.45** The following code of signals shall be used and strictly observed where a winding plant is operated at a shaft or winze where persons are regularly allowed to ride:

<b>Knocks or rings-</b>	
1.....	Raise when engine at rest.
1.....	Stop when engine in motion.
2.....	Lower.
3.....	Persons about to travel.
3.....	In reply: persons may continue to travel or may enter the cage or other conveyance for the purpose of travelling.
3.....	From engine driver when cage or other conveyance containing persons is brought to rest at a station: persons may leave the cage or other conveyance.
<b>2 pause 2.....</b>	From driver (clear signal requested): driver wishes to start the winding engine at his discretion.
	[Code of signal substituted by GN R2703 of 11 December 1981]
<b>2 pause 2.....</b>	To driver (clear signal): driver may start the winding engine at his discretion.
	[Code of signal substituted by GN R2703 of 11 December 1981]
<b>2 pause 2 pause 2</b>	From driver: persons must leave the conveyance.
<b>2 pause 2 pause 2</b>	In reply: no persons in conveyance.
<b>2 pause 2 pause 2 pause 2</b>	Cancel or repeat signal.
<b>3 pause 3 pause 3</b>	Person giving signal about to travel.
<b>3 pause 3 pause 3</b>	In reply: acknowledgement by driver that person signalling is about to travel.
<b>4 pause 1.....</b>	Raise slowly.

<b>Knocks or rings-</b>	
<b>4 pause 2.....</b>	Lower slowly.
<b>4 pause 4.....</b>	To driver: 'mark' signal.
<b>4 pause 4.....</b>	In reply: acknowledgement by driver of 'mark' signal.
<b>4 pause 4 pause 4</b>	To driver: clutching signal.
<b>4 pause 4 pause 4</b>	In reply: clutching operations completed.
<b>5 pause 5.....</b>	To driver: explosives about to be placed in the conveyance.
<b>5 pause 5.....</b>	In reply: explosives may be placed in the conveyance.
<b>5 pause 5.....</b>	From driver when conveyance containing explosives is brought to rest at a station: explosives may be removed from the conveyance.
<b>5 pause 5 pause 5</b>	To driver: no explosives in the conveyance.
<b>5 pause 5 pause 5</b>	In reply: acknowledgement by driver that there are no explosives in the conveyance.
<b>6 pause 6.....</b>	To driver: winding compartments served by engine locked.
<b>6 pause 6.....</b>	In reply: acknowledgement by driver of 'compartments locked' signal.
<b>6 pause 6 followed by station signal</b>	To driver: winding compartments served by engine locked below station designated.
<b>6 pause 6 followed by station signal</b>	In reply: acknowledgement by driver of 'compartments locked below station designated' signal.
<b>6 pause 6 pause 6</b>	To driver: compartments served by engine reopened.
<b>6 pause 6 pause 6</b>	In reply: acknowledgement by driver of 'compartments served by engine reopened' signal.
<b>6 pause 6 pause 6 pause 6</b>	To driver: shaft examination and repairs about to take place.
<b>6 pause 6 pause 6 pause 6</b>	In reply: acknowledgement by driver of 'shaft examination and repairs' signal.
<b>7.....</b>	To driver: persons about to have access to the conveyance for a purpose other than travelling or the loading or unloading of mineral in trucks or of material.

<b>Knocks or rings-</b>	
<b>7.....</b>	In reply: persons may have access to conveyance for a purpose other than travelling or the loading or unloading of mineral in trucks or of material.
<b>7 pause 7.....</b>	To driver: conveyance is clear of all persons who have had access to it for a purpose other than travelling or the loading or unloading of mineral in trucks or of material.
<b>7 pause 7.....</b>	In reply: acknowledgement by driver of 'persons clear' signal.
<b>15.....</b>	Electrician testing bells.
<b>15.....</b>	In reply: acknowledgement of 'bell testing' signal.
<b>15 pause 2 pause 2</b>	Electrician has completed test.
<b>10 followed by station signal</b>	Accident to person: station where conveyance is required.
<b>1 long ring.....</b>	Accident to shaft: winding operations to be suspended immediately in all compartments of the shaft.  In any purely mechanical signalling system 'continued ringing' shall replace 'one long ring' for the 'accident to shaft' signal.
When raising or lowering mineral in trucks or material other than explosives:	
<b>8.....</b>	To driver: raising or lowering of mineral in trucks or of material about to commence.
<b>8.....</b>	In reply: acknowledgement by driver that raising or lowering of mineral in trucks or of material is about to commence.
<b>1.....</b>	From driver: persons may have access to conveyance for the purpose of loading or unloading mineral in trucks or material.
<b>8 pause 8.....</b>	To driver: raising or lowering of mineral in trucks or of material completed.
<b>8 pause 8.....</b>	In reply: acknowledgement by driver that raising or lowering of mineral in trucks or of material is completed.

[Reg. 16.45 amended by GN R2103 of 15 November 1974.]

**16.46** In addition to the foregoing signal, special signals may be used provided that they have been approved in writing by the Principal Inspector of Mines.

[Reg. 16.46 amended by GN R94 of 15 January 1997.]

**16.47** Any person acting in conflict with the code of signals referred to in regulation 16.45 or of any of the special signals used on a mine shall be guilty of an offence.

**16.48** No person shall enter or have access or be permitted to enter or have access to a cage or other conveyance for any purpose whatsoever or shall continue to travel in a cage or other conveyance or shall leave or be permitted to leave a cage or other conveyance unless and until the appropriate signals required in terms of regulation 16.45 have been exchanged, or, if a signal cannot be given on the bell system, some other appropriate and distinct signal has been received from the winding-engine driver.

Regulations 16.45, 16.46 and 16.48 are very important, particularly regulation 16.48. In this regulation two situations exist; entering or having access to a conveyance or, leaving a conveyance, and both situations depend on the appropriate signals having been exchanged, and which implies signals from the banksman or onsetter and a reply by the winding-engine driver, or a signal from the winding-engine driver when a conveyance is brought to rest.

In the first situation, that of entering or having access to a conveyance, according to regulation 16.48 a person may have access to a conveyance only after the driver has given any one of the following signals required in terms of regulation 16.45.

These are:

<b>3 knocks or rings</b>	
In reply:	Persons may continue to travel or may enter the cage or other conveyance for the purpose of travelling.

This signal is given by the driver in reply to a similar signal from either banksman or onsetter. It should be noted that in cases where persons are being conveyed to a number of levels, if on arrival at the first destination the driver has given a 3 signal, giving persons permission to leave the cage or other conveyance, if there are still persons in the cage who are going to continue travelling, the onsetter must give a 3 signal and receive a 3 signal in reply, which will authorise the persons to continue travelling and comply with the above item of the code of signals. The purpose for which the signal is given is for persons to travel or to continue to travel in the cage or other conveyance.

<b>5 pause 5 knocks or rings</b>	
In reply:	Explosives may be placed in the conveyance.

This signal is given by the driver in reply to a similar one from either the banksman or onsetter, and gives permission for persons to enter the cage or other conveyance and to place the explosives which are to be transported. The purpose for which the signal is given is for persons to enter the cage or other conveyance, place the explosives, and leave the conveyance.

If the onsetter is to travel with the explosives for the purpose of distribution, then he may do so but in a different deck to that in which the explosives are placed. If he is accompanied by his assistants, he will have to give a 3 signal, receive a 3 signal from the driver and then give the 3 pause 3 pause 3 signal to indicate that he is about to travel.

The provisions of regulations 16.65, 16.65.1 and 16.65.2 are applicable in this case and permit the onsetter and his assistants to travel.

#### **5 pause 5 knocks or rings**

From driver:

When a conveyance containing explosives is brought to rest at a station: explosives may be removed from the conveyance.

The purpose for which this signal is given by the driver is to enable the explosives in the conveyance to be removed and this signal must be given spontaneously by the driver to enable persons to have access to the conveyance and to leave when the explosives have been removed.

#### **7 knocks or rings**

Persons may have access to conveyance for a purpose other than travelling or the loading or unloading of mineral in trucks or of material.

In this case, the purpose for which access is required is for a purpose other than travelling or the loading or unloading of mineral in trucks or of material, and will usually relate to some work in connection with the examination, maintenance, repair or other work in connection with shaft equipment. A conveyance in a winding compartment is part of the winding equipment, so the examination, maintenance or repair of a conveyance or any other work on a conveyance is work falling within that work described in regulation 16.55 and the necessary entry in the driver's log book must be made before the signal 7 is given.

If the purpose is not that contemplated by regulation 16.55, such as the retrieval of a sling, then the signal 7 can be exchanged without making the entry in the log book. The responsibility in this regard is that of the person in immediate charge of the work to be performed.

Access to a conveyance is deemed to commence immediately a person enters the gate giving access to the shaft.

If a winding operation, such as a slow movement of the conveyance either up or down, is necessary for the purpose of effecting the repairs, conducting the examination or doing the other work, this is permitted in terms of regulation 16.53.1 and the winding-engine driver is entitled and compelled to react to a signal of 4 pause 1 or 4 pause 2. The circumstances may be such that persons do ride on the conveyance during such movement but the purpose for which they required access was not to travel but to carry out repairs, conduct an examination or do other work in connection with shaft equipment. The person or persons may even ride on the roof of the conveyance if the provisions of regulation 16.67 are applicable. The onus of ensuring that no person is endangered by such a movement is on the person giving the signals to the driver as defined in regulation 16.91.10 and it is also his duty to ensure that the provisions of regulations 16.53 and 16.54, in so far as they are applicable, are complied with. The movement of the conveyance under these circumstances must be such that the person giving the signals must be in complete control of the situation in order to comply with the requirements of regulation 16.91.13.

During a continuous period of raising or lowering mineral in trucks or of material other than explosives:

**1 knock or ring**

From driver: Persons may have access to conveyance for the purpose of loading or unloading mineral in trucks or of material.

This signal can never be requested by the interchange of signals but must be granted spontaneously by the driver after replying with, first, signal 8, and then when the conveyance is brought to rest at a station or at the bank.

In the second situation, that of leaving a cage or other conveyance, according to regulation 16.48, a person may leave a conveyance only after the driver has given any one of the following signals required in terms of regulation 16.45.

These are:

<b>2 pause 2 pause 2 knocks or rings</b>	From driver: Persons must leave conveyance.
This signal is perfectly clear and requires no further explanation.	
<b>3 knocks or rings</b>	From driver when cage or other conveyance containing persons is brought to rest at a station: Persons may leave the cage or other conveyance.

This signal is very clear and it must be stressed that the code of signals as contained in regulation 16.45, together with the provisions of regulation 16.48 form the basic code of safety practice with regard to persons. A large number of winding accidents can be attributed to the disregard of the provisions of these two regulations. It cannot be stressed sufficiently that banksmen and onsetters carry a very great responsibility for ensuring that these Regulations are complied with.

**16.49.1** The code of signals referred to in regulation 16.45 or an abridged form thereof approved by the *Chief Inspector*, as well as the special signals that may be in use on a mine, shall be displayed suitably in the form of distinctly legible notices in letters and figures not less than 10 millimetres in height. The decision whether such notices are suitably displayed and distinctly legible shall rest with the Principal Inspector of Mines. Such notices shall be posted up in the winding-engine room, at the bank and at all shaft or winze stations for the time being in use.

[Reg. 16.49.1 amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997.]

**16.49.2** Where only some of the signals in the aforementioned code are used it shall be necessary to display only that portion of the code which is used.

### **Requirements at shafts and winzes**

**16.50** Every vertical shaft and every vertical winze exceeding 30 metres in depth and used for winding purposes shall be provided with guides for skips, cages or other conveyances unless exempted in writing by the Principal Inspector of Mines.

[Reg. 16.50 amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997.]

**16.51** At any place in a shaft or winze where it is necessary for workmen to pass from one side to the other, provision shall be made for them to do so without entering or crossing a compartment in which winding is taking place; such passage shall be securely fenced off from moving parts of machinery and from any conveyance.

**16.52** No person shall enter or cross a compartment of a shaft, winze or of a headgear in which winding is taking place, except for the purpose of entering, leaving or having access to a cage, skip or other conveyance or for the purpose of conducting an examination, effecting repairs or doing other necessary work in such compartment.

**16.53** No winding operations shall be carried on in a shaft, winze or headgear while persons are engaged in effecting repairs, conducting an examination or doing other work in such shaft, winze or headgear except-

**16.53.1** where such winding operations are necessary for the purpose of effecting the repairs, conducting the examination or doing the work; or

**16.53.2** where persons engaged in effecting the repairs, conducting the examination or doing other work are adequately protected from the conveyances and other winding equipment used in such winding operations as well as from falling stones and falling material.

**16.54** No person shall effect repairs, conduct an examination or do other work in a shaft, winze or a headgear while winding operations are being carried out in such shaft or headgear, except-

**16.54.1** where such person is adequately protected from the conveyances and from other winding equipment as well as from falling stones and falling material; or

**16.54.2** where the winding operations are necessary for such person to effect the repairs, conduct the examination or to do the other work.

**16.55** The person in immediate charge of any repairs or examination in a winding compartment of a shaft, winze or a headgear or in immediate charge of any work in connection with maintenance or installation of equipment in a winding compartment of a shaft, winze or a headgear shall warn the driver of the winding engine operating the conveyance in such compartment that such repairs, examination or work are about to be undertaken and where practicable shall enter forthwith, in the presence of the driver on duty at the time, such warning in the driver's logbook provided in terms of regulation 16.81. Such entry shall be countersigned by the driver and by any driver relieving him. Where it is not practicable for the person in charge of such repairs, examination or work to enter such warning, the entry shall be made by the driver on duty. Except where the provisions of regulations 16.53.2 and 16.54.2 are complied with, the driver of every other winding engine operating conveyances in the shaft, winze or headgear shall be warned in a similar manner. The entry shall be cancelled by the person in immediate charge of such repairs, examination or work on completion thereof.

When artisans carry out examinations and repairs to conveyances in a winding compartment, two elements must be established and proved to make regulation 16.55 applicable.

Firstly, it must be established whether the actions of the artisan can be described as 'any work in connection with maintenance', and this cannot be disputed.

Secondly, it must be established whether the work in connection with maintenance is performed on 'equipment in a winding compartment of a shaft, winze or headgear'. This too, cannot be disputed as the cage, skip or other conveyance is in a winding compartment of a shaft, winze or a headgear when in actual use. It is also indisputable that any conveyance, when installed in a winding compartment, forms part of the equipment in the winding compartment.

Therefore, when work is to be performed on any such conveyance, the requirements of regulation 16.55 must be complied with, ie making the necessary entry in the driver's logbook. This must be carried out before any signals are exchanged and the fact that an entry has been made in the driver's logbook does not absolve the person in immediate charge of the work from ensuring that the necessary signals, 7 knocks or rings, are exchanged before the work commences and, when the work in that compartment has been completed, the 7 pause 7 knocks or rings signal must be exchanged before proceeding to the other compartment when the signalling procedure is repeated. One entry in the driver's logbook can cover both compartments.

Regulation 16.81.4 requires that any warning given in terms of regulation 16.55 and the time when such warning was given be recorded in the driver's logbook.

It is considered good safety practice, particularly where the conveyance is to be moved during the repair, examination or other work, to state this in the driver's logbook and, in terms of regulation 16.81.3, to give any special instructions to the driver and in particular for the driver to give a signal of 1 knock or ring, in order to activate the bell-brake interlock, and it will then require a positive signal from the person in charge of the signalling system before the conveyance can be moved and so ensure the safety of the person working or examining the shaft equipment. The above will also apply to the situation where conveyances in a winding compartment are being changed, as such work constitutes the installation of equipment in a winding compartment. Shaft examination in terms of regulation 16.73 must similarly be recorded in the driver's logbook prior to any other action taking place, but the signalling system is on the system referred to in regulation 16.42.2 and does not operate on the bell-brake interlock system.

When the work has been completed, the person in immediate charge of the work must, in terms of regulation 16.55, cancel the entry in the driver's logbook and, although it is not so specified in regulation 16.81.3, it is considered good practice to enter the time when the entry was cancelled. This means that the driver's logbook will reflect a complete time and activity record of the work which had been carried out.

[Reg. 16.55 amended by GN 160 of 1 February 1991.]

**16.56** For the purpose of regulations 16.53, 16.54 and 16.55 work in a shaft shall not include work at the bottom of a shaft or winze in the course of being sunk.

**16.57** Where winding is carried on in a shaft or winze there shall be fitted above the bank spring keps or jack catches or some other effective contrivance to support any conveyance detached from the winding rope as a result of an overwind.

[Reg. 16.57 amended by GN 160 of 1 February 1991.]

**16.58** For a winding system in a vertical shaft or winze where the end of the winding rope is fastened to the drum of the winding engine, there shall be fitted detaching hooks to detach from the winding rope any conveyance overwound in the headgear and to support it. Such detaching hooks shall be additional to the devices required in terms of regulation 16.57: Provided that detaching hooks need not be fitted to the ropes of any winding plant in a vertical shaft or winze in the course of being sunk.

[Reg. 16.58 amended by GN R2703 of 11 December 1981 and by GN 160 of 1 February 1991.]

**16.59** For a winding system in a vertical shaft or winze where the winding rope is not fastened to the drum or sheave of the winding engine-

**16.59.1** the over-run space in the headgear above the highest established stopping place shall be provided with rigid guides or other appliances arranged so that an overwound conveyance is retarded to minimise the risk of the conveyance coming into contact with the rope sheave or the buffer stops in the headgear; and

**16.59.2** the over-run space at the bottom of the shaft or winze below the lowest established stopping place shall be provided with rigid guides or other appliances arranged so that an overwound conveyance is retarded and arrested before it can come into contact with any fixed obstacle.

[Reg. 16.59.2 amended by GN 160 of 1 February 1991.]

[Reg. 16.59 amended by GN 160 of 1 February 1991.]

**16.60** The headgear shall be carried sufficiently high to allow a clearance of at least 7,5 metres in which the conveyance can travel above or beyond the highest landing place for persons before it comes into contact with any fixed obstacle excluding any retarding appliance provided in terms of regulation 16.59.

[Reg. 16.60 amended by GN R303 of 1 March 1972.]

**16.61** The shaft or winze shall be carried sufficiently deep to allow an over-run space of at least 7,5 metres in which the conveyance can travel below or beyond the lowest landing for persons before it comes into contact with any fixed obstacle excluding any retarding appliance provided in terms of regulation 16.59: Provided that such over-run space need not be provided in a shaft or winze in the course of being sunk or in a shaft or winze not exceeding 300 metres in depth or length below the bank where the winding system does not include the use of a balance rope or tail rope.

[Reg. 16.61 amended by GN R303 of 1 March 1972 and by GN 160 of 1 February 1991.]

**16.61.1** The *employer* must, for every station level-

- (a) identify and clearly demarcate an area surrounding the shaft as the shaft station;
- (b) show the shaft station, including the location of all safety devices on the shaft station, on a plan; and
- (c) prominently and conspicuously display a copy of such plan at every shaft station.

[Reg. 16.61.1 inserted by GN R802 of 19 June 1998.]

**16.61.2.1** The *employer* must install a device or combination of devices that prevent inadvertent access of vehicles to the shaft as close as practicable to all entrances to the shaft.

[Reg. 16.61.2.1 inserted by GN R802 of 19 June 1998.]

**16.61.2.2** The device or combination of devices referred to in 16.61.2.1 must be-

- (a) fail-safe or lockable;
- (b) equipped with mechanisms that prevent their unauthorised operation;
- (c) operated only under the direct supervision of a competent person appointed by the engineer or by the person appointed in terms of regulation 2.13.2; and
- (d) operated only if a conveyance is being used for the loading or unloading of persons, equipment, material, minerals or explosives at that entrance to the shaft.

[Reg. 16.61.2.2 inserted by GN R802 of 19 June 1998.]

**16.61.2.3** The *employer* must install a device or combination of devices which ensure, or the *employer* must ensure that the access configuration to the shaft station is such, that the speed of any self-propelled mobile machine or combination of vehicles entering the shaft station is limited to ensure that the kinetic energy of such machine or any combination of vehicles reaching any entrance to the shaft station is not greater than the energy absorption capacity of the device or combination of devices referred to in regulation 16.61.2.1.

[Reg. 16.61.2.3 inserted by GN R802 of 19 June 1998]

**16.61.2.4** The *employer* must ensure that procedures are in place, or that the device or combination of devices referred to in regulation 16.61.2.1 are equipped with mechanisms that prevent the unauthorised operation or removal of such device or combination of devices.

[Reg. 16.61.2.4 inserted by GN R802 of 19 June 1998.]

**16.61.2.5** The engineer or person appointed in terms of regulation 2.3.2 must approve any access configuration for purposes of regulation 16.61.2.3 and must with regard to the device or combination of devices used for the purposes of regulations 16.61.2.1 and 16.61.2.2-

- (a) approve the design of every such device; and
- (b) ensure that every such device is installed and maintained in good working order.

[Reg. 16.61.2.5 inserted by GN R802 of 19 June 1998.]

**16.61.3** No self-propelled mobile machine maybe parked in the shaft station.

[Reg. 16.61.3 inserted by GN R802 of 19 June 1998.]

**16.61.4** A self-propelled mobile machine may only enter the shaft station under power if it is under the direct supervision of a competent person appointed by the engineer or the person appointed in terms of regulation 2.13.2.

[Reg. 16.61.4 inserted by GN R802 of 19 June 1998.]

### **Loading of winding plant conveyances**

**16.62** No person shall travel in a conveyance operated by a winding engine if such conveyance is loaded or partially loaded with mineral, and no person shall travel in a conveyance operated by a winding engine that is being used simultaneously for the winding of mineral: Provided that, if authorised by the manager or mine overseer, persons engaged in sinking operations in a vertical shaft or winze may descend such shaft or winze in a conveyance operated by a winding engine that is being used simultaneously for the raising of mineral.

**16.63** Subject to the provisions of regulations 16.64 and 16.65 no person shall travel-

- (a) with material or explosives in a conveyance operated by a winding engine; and
- (b) in a conveyance operated by a winding engine that is being used simultaneously for the winding of material or explosives.

[Reg. 16.63 amended by GN 160 of 1 February 1991 and by GN R2223 of 7 August 1992.]

**16.64** Subject to the provisions of regulation 16.65-

- (a) the manager, engineer or mine overseer may grant permission in writing for persons to travel with material if such material is not likely to endanger persons travelling in the conveyance; and
- (b) the manager shall-
  - (i). cause a list to be kept of the material which is regularly conveyed in the shaft or winze for which permission has been granted in terms of paragraph (a);
  - (ii). ensure that all persons authorised to give signals for the raising and lowering of persons are conversant with the material mentioned in the list; and
  - (iii). make a copy of the list readily available to all persons concerned.

[Reg. 16.64 amended by GN R2223 of 7 August 1992.]

**16.65** The manager, engineer or mine overseer may authorise the following persons to travel in a shaft or winze with material or explosives prohibited in terms of regulation 16.63 if such travelling is necessary for the efficient carrying out of their duties:

[Reg. 16.65 amended by GN 160 of 1 February 1991 and by GN R2223 of 7 August 1992.]

**16.65.1** Onsetters and their gangs.

**16.65.2** ...

[Reg. 16.65.2 deleted by GN R2223 of 7 August 1992.]

**16.65.3** Persons engaged in sinking operations or in conducting an examination, effecting repairs or doing other work in the shaft or winze.

**16.65.4** Persons required to ensure the safe passage through the shaft or winze of material which cannot be conveyed inside a conveyance.

**16.66** No person shall place explosives in or remove them from a conveyance operated by a winding engine except under the immediate supervision of the banksman, onsetter or a competent person authorised thereto by the manager or mine overseer.

[Reg. 16.66 amended by GN R1352 of 8 July 1988.]

**16.67** No person shall ride in any shaft or winze on the roof, top, side, bow, rim, bridle or frame of or in any position outside a conveyance operated by a winding engine, except that persons engaged in examining or repairing the shaft or winze or doing other work in the shaft or winze may ride on the roof of such conveyance or on a special platform if authorised to do so by the manager or mine overseer and if such riding on the roof of such conveyance or on the special platform is necessary for the efficient carrying out of such examination, repairs or other work.

**16.68** Persons shall not except when permitted in writing by the Principal Inspector of Mines be raised or lowered in a conveyance attached to the normal conveyance.

[Reg. 16.68 amended by GN 160 of 1 February 1991 and by GN R814 of 13 March 1992.]

**16.69** No bucket or other means of conveyance that can sway shall be allowed to leave the top or bottom of the shaft or winze unless the workman in charge thereof has steadied it or caused it to be steadied.

**16.70** No bucket or other means of conveyance shall be filled with loose rock or ground above the level of the brim.

**16.71** Tools or other material which project above the top of the cage, skip, bucket, kibble or other means of conveyance, and which are raised or lowered in a shaft or winze shall be fastened securely in such a manner that the operation of any arresting device is not affected.

Care must be exercised in cases where a detaching hook is attached to the end of the winding rope that the material does not project above the detaching hook or interfere with it in any way whatsoever.

[Reg. 16.71 amended by GN 160 of 1 February 1991.]

### **Trial run of winding plant**

**16.72** When winding in any compartment or compartments of a shaft, winze or headgear has been stopped for repairs or blasting operations or when it has been stopped for any other purpose for a period exceeding one hour in duration or when a conveyance has been changed, the winding engine serving such compartment or compartments shall not be used for the raising or lowering of persons until the cage, skip or other means of conveyance has been run at least one complete trip up and down such compartment or compartments: Provided that this regulation shall not apply to the use of the winding engine for the raising or lowering of persons conducting an examination or effecting repairs; and provided further that where such stoppage is confined to a portion of any compartment or compartments, the requirements of this regulation shall only apply to such portion.

### **Examination of winding plant and shaft**

**16.73** The manager or subordinate manager and an engineer or competent person appointed in terms of regulation 2.13.2, as the case may be shall, in respect of his area of responsibility, appoint in writing competent persons whose duty it shall be to examine carefully, to an extent to be clearly defined in their respective letters of appointment, at least once in each week, at intervals not exceeding 10 days, the guides or rails and the shaft compartments and equipment, including the doors, gates and barriers and ancillary equipment at stations, loading platforms and loading boxes.

[Reg. 16.73 amended by GN R2703 of 11 December 1981 and by GN R1352 of 8 July 1988 and by GN 160 of 1 February 1991.]

**16.74** An engineer or competent person appointed in terms of regulation 2.13.2, as the case may be, shall appoint in writing some competent person or persons whose duty it shall be to examine carefully-

**16.74.1** at least once in each day the winding ropes, the balance ropes or tail ropes, the connection of the winding ropes to the drum, the connections referred to in regulation 16.18, the conveyances and the main members by which they are suspended and any safety catches attached thereto, the pulley wheels or sheaves, the brakes, the depth indicators, the safety devices and all external parts of the winding equipment upon the proper working of which the safety of persons depends: Provided that these examinations will not be necessary on any day mentioned in section 9(1) of the Mines and Works Act if the winding plant makes less than 50 trips during such day; and

**16.74.2** at least once in each week the signalling arrangements and the safety devices used in connection therewith.

[Reg. 16.74 amended by GN R1352 of 8 July 1988 and by GN 160 of 1 February 1991.]

**16.75** An engineer or competent person appointed in terms of regulation 2.13.2, as the case may be, shall examine carefully-

[Reg. 16.75 amended by GN 160 of 1 February 1991.]

**16.75.1** at least once in each week, and at intervals not exceeding 10 days, the overspeed and overwind prevention devices and the external parts of the winding engine;

[Reg 16.75.1 amended by GN R2703 of 11 December 1981.]

**16.75.2** at least once in each year the winding engine as to the condition of the internal mechanical parts and, as far as *reasonably practicable*, the internal electrical parts;

**16.75.3** at least once in each calendar month at intervals not exceeding 45 days the structure of the winding rope and the balance rope or tail rope, with a view to ascertaining the amount of deterioration thereof. For the purpose of this examination the rope shall be cleaned at a place selected by the person making the examination who shall note any reduction in the circumference of the rope, any variation in the length of the rope, the superficial condition of the wires as to wear, corrosion, fractures and brittleness, and all other data necessary for ascertaining the amount, extent, and distribution of the deterioration of the rope. If the examination discloses features such as undue or rapid wear or fractures of the wires, which, although not constituting sufficient reason for condemning the rope, call for more than usual attention, the examination required under this paragraph shall be made more frequently;

**16.75.4** at least once in each calendar month at intervals not exceeding 45 days the connections between the winding rope and the drum, the connections referred to in regulation 16.18 and the sheave wheel or wheels;

[Reg 16.75.4 amended by GN R2703 of 11 December 1981.]

**16.75.5** after every accident or occurrence referred to in regulation 25.6(a) and before winding operations are resumed, all portions of the winding equipment affected by such accident or occurrence on which the safety of persons depends;

**16.75.6** by dynamically testing the automatic overwind and overspeed prevention devices at least once in every six months, at intervals not exceeding 200 days.

[Reg 16.75.6 inserted by GN R2703 of 11 December 1981.]

**16.76** In the case of connections referred to in regulation 16.18 being of a class of steel approved by the *Chief Inspector*, such connections and their component parts shall be dismantled, cleaned and then examined by an engineer or competent person appointed in terms of regulation 2.13.2, as the case may be, at intervals not exceeding 12 months.

[Reg. 16.76 amended by GN 160 of 1 February 1991 and by GN R94 of 15 January 1997.]

**16.77** If on any examination required in terms of regulations 16.73, 16.74, 16.75 and 16.76 there is discovered any weakness or defect which may endanger the safety of persons, and such weakness or defect cannot be remedied immediately, the person making the discovery shall report such weakness or defect to the manager without delay. Until such weakness or defect is remedied the winding plant shall not be used except in so far as may be necessary to remedy such weakness or defect.

#### **Winding plant record and log books**

**16.78** The manager shall provide for each winding plant a book to be termed the Machinery Record Book in which shall be entered-

**16.78.1** the name of each person appointed under regulation 16.74 to perform the duties called for in the said regulation together with the particulars of the duties of each such person; and

**16.78.2** a true report of every examination referred to in regulations 16.74, 16.75 and 16.76. These reports shall be recorded and signed without delay by the person making such examination. The reports made by the persons appointed in terms of regulation 16.74 shall be scrutinized and countersigned by an engineer or competent person appointed in terms of regulation 2.13.2, as the case may be, at least once in each week.

[Reg. 16.78.2 amended by GN 160 of 1 February 1991.]

**16.79** The manager shall provide a book to be termed the Rope Record Book in which shall be entered-

**16.79.1** the name of each person appointed under regulation 16.27;

**16.79.2** the following particulars for each winding rope, balance rope or tail rope used on each winding plant:

(a) Name of manufacturer-

Date of manufacture;

Coil number;

Length in metres;

Mass per metre in kilograms;

Diameter in millimetres; or

Width and thickness in millimetres;

Construction of rope-

type and length of lay;

number of strands;

class of heart;

type of lubricant;

Construction of strands-

number of wires;

diameter of wires in millimetres;

class of core;

class of steel in wires;

tensile strength of steel in megapascals;

Breaking force in kilonewtons;

Rope test certificate number and place of test;

[Para. (a) amended by GN R303 of 1 March 1972.]

(b) Whether used for winding or balance purposes-

Name and type of shaft;

Name of compartment;

Winding plant certificate number;

Date put on;

(c) Dates of recapping, shortening or turning end for end-

Dates of testing and the breaking force obtained at each test;

Date taken off;

Dates of annealing or renewing connections; and

[Para. (c) amended by GN R303 of 1 March 1972.]

**16.79.3** a true report of every test or examination referred to in regulation 16.27. These reports shall be recorded and signed without delay by the person making such test or examination.

**16.80** The manager shall provide for each shaft or winze where persons are regularly conveyed a book to be termed the Shaft Log Book in which shall be entered-

**16.80.1** the name of each person appointed under regulation 16.73 to perform the duties mentioned therein together with the particulars of the duties of each such person;

**16.80.2** a true report of every examination referred to in regulation 16.73. The report shall be recorded and signed without delay by the person making such examination and the reports shall be scrutinized and countersigned by the manager or mine overseer and by an engineer or competent person appointed in terms of regulation 2.13.2, as the case may be, at least once in each week.

[Reg. 16.80.2 amended by GN 160 of 1 February 1991.]

**16.81** The manager shall provide in respect of each winding engine, other than an automatic winding engine, a book to be termed the Driver's Log Book, which shall be kept in the winding engine room and in which shall be recorded in duplicate-

[Reg. 16.81 amended by GN R2703 of 11 December 1981.]

**16.81.1** a true report of the condition of the winding engine, including the brakes, clutches, reversing gear, depth indicators and all other fittings. Such report shall be made and signed by the winding-engine driver for each period of charge, the time and duration of which shall be recorded;

**16.81.2** a true report of the condition of the signalling arrangements together with a record of any signals received by the winding-engine driver which he has questioned. Such report shall be made and signed by the winding-engine driver for each period of charge;

**16.81.3** any special instructions involving the safety of persons given to the winding-engine driver and the time such instructions were given. Such entry shall be signed by the person giving the instruction and shall be countersigned by the winding-engine driver; and

**16.81.4** any warning given in terms of regulation 16.55 and the time such warning was given;

**16.81.5** the contents of the conveyances and the last signals received by the winding engine driver when his relief is about to take over, and such report shall be countersigned by the winding-engine driver by whom he is relieved.

[Reg. 16.81.5 inserted by GN 160 of 1 February 1991.]

**16.82** The entries in the Driver's Log Book shall be scrutinized and countersigned daily by the persons appointed to carry out the duties specified in regulation 16.74. The duplicate shall be scrutinized and countersigned within 24 hours by an engineer or competent person appointed in terms of regulation 2.13.2, as the case may be, and shall be retained by him for at least 30 days.

[Reg. 16.82 amended by GN 160 of 1 February 1991.]

#### **Winding-engine drivers**

**16.83.1** Nobody shall drive or be caused or permitted to drive a winding plant, for which a prescribed permit has been issued unless he is a certificated winding engine driver: Provided that a learner winding-engine driver may drive a such winding plant under the direct supervision of a certificated winding-engine driver while no persons are being conveyed.

[Reg. 16.83.1 amended by GN R2703 of 11 December 1981, by GN R3083 of 20 December 1991 and by GN R2449 of 24 December 1993.]

**16.83.2** For the purpose of regulation 16.83.1 'drive' shall mean any action requiring skill whereby the control levers of the winding plant are manipulated in such a way that the winding engine moves in direct relation to the movement of the levers.

[Reg. 16.83.2 inserted by GN R2703 of 11 December 1981.]

**16.84** Upon engaging a winding-engine driver, who is required in terms of regulation 16.83 to be the holder of a certificate, the manager shall record or cause to be recorded the number and type of such certificate: Provided that if such winding-engine driver has not driven a winding engine for the preceding two years or more, the manager shall not engage him, but shall refer the matter to the Government Mining Engineer who may require such winding-engine driver to undergo a medical examination and a proficiency examination.

[Reg. 16.84 amended by GN 160 of 1 February 1991 and by GN R814 of 13 March 1992.]

**16.85** No person shall speak to or in any way distract the attention of the person operating a winding engine while it is in motion, except a person in authority and then only in cases of necessity or emergency.

**16.86** The driver of a winding engine-

**16.86.1** shall not start his engine before he has received a distinct and proper signal to do so, unless he has been instructed in writing to do so by the manager, the mine overseer or an engineer or competent person appointed in terms of regulation 2.13.2, as the case may be, or unless he has received the 'clear signal' 2 pause 2, or unless he has sole control of the cage, skip or other means of conveyance.

[Reg. 16.86.1 amended GN R2703 of 11 December 1981 and by GN 160 of 1 February 1991.]

**16.86.2** shall not act on any signal if he has been unable to do so within one minute after receiving it but shall request a repeat signal: by ringing 2 pause 2 pause 2 pause 2: Provided that after having received the 'clear signal' he may move at his discretion, but when a period of more than five minutes has lapsed after he has received such 'clear signal' he shall move the conveyance slowly;

[Reg. 16.86.2 amended by GN 160 of 1 February 1991.]

**16.86.3** shall not run such engine at a greater speed than that fixed by the Principal Inspector of Mines;

[Reg. 16.86.3 amended by GN R814 of 13 March 1992.]

**16.86.4** shall, except in the case of emergency, avoid shocks in starting, in running and in stopping the said engine;

**16.86.5** shall apply correctly every device and means at his disposal to prevent the conveyance over-running-

- (a) the signalled destination; or
- (b) when the destination is not signalled, the highest or lowest landing place when persons are being conveyed and the highest or lowest established stopping place when persons are not being conveyed to an extent which may endanger the safety of persons or may cause damage to the winding equipment;

**16.86.6** shall apply correctly every device and means at his disposal to prevent the conveyance moving in a direction opposite to that signalled;

In *R v Naude* 1940 TPD 223 the winding-engine driver moved away in a direction opposite to that signalled. The persons in the skip were terror-stricken and attempted to jump out of the skip. The driver was convicted of an act whereby the safety of any person is endangered or likely to be endangered. It is of particular interest to read in the judgment of Maritz J, the conclusion arrived at in relation to the reactions of the occupants of the skip.

**16.86.7** shall not start his engine until the expiry of at least 10 seconds after receiving a signal to raise or lower persons: Provided that this requirement shall not apply when blasting is about to take place in a shaft or winze in the course of being sunk;

**16.86.8** shall not act in response to any signal on the call-bell system other than the one long ring referred to in regulation 16.45;

**16.86.9** shall not unclutch a drum of his engine until he has assured himself immediately beforehand by testing the brake of the drum against sufficient power of the engine that the brake is in proper condition to hold the load suspended from the said drum;

**16.86.10** shall when a drum of his engine is unclutched, use the brake only for the purpose of maintaining such drum stationary. Lowering from an unclutched drum shall not be permitted;

**16.86.11** shall when such engine is fitted with a friction clutch, test the holding power of the clutch after engaging the clutch and before releasing the brake of the corresponding drum. For a steam engine or an air engine the test shall be made against the full power of the engine, and for an electric engine against the normal starting current, while the brake of the other drum is kept off;

**16.86.12** shall not perform clutching operations whilst persons are in either of the conveyances operated by his engine: Provided that in a shaft or winze being sunk or equipped, clutching may be performed on a sinking platform while the minimum number of persons are on the platform to ensure that the clutching operations are correctly carried out;

**16.86.13** shall not, unless he intends operating the winding engine on single drum during shaft examination, shaft repairs or shaft sinking operations, give the signal that clutching operations are completed until he has engaged the clutch and has securely locked it and where applicable has carried out the test prescribed in regulation 16.86.11;

[Reg. 16.86.13 substituted by GN R2101 of 15 November 1974 and by GN R2703 of 11 December 1981.]

**16.86.14** shall not work or be permitted to work a longer shift on the winding engine than 10 hours, except where permission has been obtained from the Principal Inspector of Mines and under such conditions as he may direct;

[Reg. 16.86.14 amended by GN R94 of 15 January 1997.]

**16.86.15** shall take all reasonable measures to safeguard persons being conveyed and to avoid any unnecessary delays in conveying such persons.

[Reg. 16.86.15 inserted by GN R2703 of 11 December 1981.]

### **Banksmen and onsetters**

**16.87** No unauthorised person shall give any signal other than an accident signal, or shall in any manner whatsoever interfere with the signalling arrangement provided for winding operations.

**16.88** No person shall be permitted to carry out the duties of a banksman or onsetter unless he is the holder of an onsetter's certificate issued in accordance with these Regulations. Every appointment of a banksman or onsetter shall be made in writing by the manager.

**16.89.1** No person, other than the banksman or onsetter on duty, shall give or shall be caused or permitted to give any signals for the raising or lowering of persons provided that-

(a) when the banksman or onsetter is not available, a competent person to whom the manager has given written permission to do so may give signals for the conveyance of himself and of any person travelling with him;

[Para. (a) amended by GN R1352 of 8 July 1988.]

(b) the ganger or miner in charge at the bottom of a shaft or winze in the course of being sunk or a person acting under his immediate supervision may give a signal to raise persons; and

(c) any person duly authorised in writing by the manager or mine overseer may give signal for the conveyance of persons between the main mineral loading station at the bottom of a vertical or inclined shaft and the lowest landing station for persons.

The Principal Inspector of Mines shall be furnished on demand with a list of the persons to whom permission has been granted in terms of paragraph (a) above and may order its revision.

[Reg. 16.89.1 amended by GN R94 of 15 January 1997.]

**16.89.2** No person other than the banksman or onsetter on duty shall give any signal for the raising or lowering of material or mineral unless duly authorised by the manager or mine overseer. Where the winding plant is also used for the conveyance of persons, such authorisation shall be in writing.

**16.90** No person shall be appointed as a banksman or onsetter, nor shall any person be authorised to give signals, unless such person has sufficient knowledge of the shaft operations and of the signals to be given in connection with such operations.

**16.91** The banksman, onsetter or other person authorised to give signals for winding operations-

**16.91.1** shall not, after the winding-engine driver has signalled that persons may enter the conveyance for the purpose of travelling or that persons in the conveyance may continue to travel, give any signal on the signalling arrangements for that winding compartment until all persons are properly placed in the conveyance and the doors or gates of the conveyance and the gates or barriers at the bank, station or landing platform are properly shut: Provided that when the banksman, onsetter or other person authorised to give signals intends to travel, such doors, gates or barriers as will prevent his entrance to the conveyance may be left open until he has given the signal to raise or lower and has entered the conveyance;

**16.91.2** shall not, when the conveyance containing persons is brought to rest in the proper position at the bank, station or landing platform and the winding-engine driver has signalled that persons may leave the conveyance, give any signal on the signalling arrangements for that winding compartment until all persons who are to leave the conveyance are out and clear of it;

**16.91.3** shall ensure that the roof, cover or hood, required to be provided in terms of regulations 16.11 to 16.14 inclusive, is properly in position before persons are raised or lowered in or on such conveyance;

**16.91.4** shall take all reasonable measures to prevent persons from having unauthorised access to the conveyance and to the winding compartments;

**16.91.5** shall not allow any person to travel in a conveyance operated by a winding engine if such conveyance contains mineral and, except as provided for in regulation 16.62, shall not allow any person to travel in a conveyance operated by a winding engine that is being used simultaneously for the winding of mineral;

**16.91.6** shall not, except as provided for in regulations 16.63 and 16.65, allow any person to travel in a conveyance operated by a winding engine that is being used simultaneously for the winding of material;

**16.91.7** shall not, except as provided for in regulation 16.67, allow any person to ride on the roof, top, side, bow, rim, bridle or frame of or in any position outside a conveyance operated by a winding engine;

**16.91.8** shall acquaint himself with the maximum number of persons authorised by the Principal Inspector of Mines to travel at any one time in the cage and on each deck of the cage, or in the skip or other means of conveyance and shall not allow such maximum to be exceeded;

[Reg. 16.91.8 amended by GN R94 of 15 January 1997.]

**16.91.9** shall not allow any unauthorised person to give signals on the signalling arrangements used in connection with winding operations;

**16.91.10** shall not give the 'clear signal' 2 pause 2 or any signal to raise or lower the conveyance unless all persons at the bank, station, landing platform, loading box or other place where he is in charge, are in a position in which they will not be endangered by the movement of such conveyance or any other conveyance operated by the same winding engine;

**16.91.11** shall not give a signal to clutch unless all persons are out of and clear of the conveyance or conveyances operated by the winding engine;

**16.91.12** shall not cause or permit any person to enter or to have access to the conveyance or conveyances until he has received a signal from the winding-engine driver that clutching operations are completed; and

**16.91.13** shall take all reasonable measures to safeguard against accident all persons at the place where he is in charge, whether such persons are under his direct supervision or not.

### **Notices required at winding plants**

**16.92** Where a winding plant is used the following shall be kept posted up:

**16.92.1** At each winding engine-

(a) a copy of the permit issued in terms of section 33(1) of the Act; and

[Para. (a) amended by GN R3083 of 20 December 1991.]

(b) the code of signals and any special signals.

**16.92.2** At each bank, station or landing platform-

(a) a notice showing clearly the maximum number of persons permitted to ride in each conveyance, or a notice prohibiting the conveyance of persons where it is not allowed in terms of the permit issued under section 33(1) of the Act; and

[Para. (a) amended by GN R3083 of 20 December 1991.]

(b) the code of signals and any special signals.

## Requirements at shafts being sunk

**16.93.1** The winding-engine driver shall control the speed of the winding engine in such a manner as to ensure that when any bucket or other means of conveyance is approaching or passing through the stage, or the covering provided in accordance with the requirements of regulation 16.93.4, it does so slowly and safely and that the crosshead is picked up or released, as the case may be, without shock.

**16.93.2** The bucket or other means of conveyance shall not be lowered directly to the bottom of the shaft if men are there present but shall be stopped by the winding-engine driver at least five metres above the bottom and shall not be lowered further until the signal has been given by one of the sinkers thereat.

[Reg. 16.93.2 amended by GN R303 of 1 March 1972.]

**16.93.3.1** In a vertical shaft where sets are used to support the guides, guides shall extend down to the lowest set which shall not be more than 15 metres from the bottom, and when winding is being done to the bottom the crosshead shall travel to the lowest set but one. In a vertical shaft where the guides are not supported by sets, the guides for conveyances shall extend down to 30 metres or less from the bottom, and when winding is being done to the bottom the crosshead shall travel to as near the end of the guides as is practicable.

[Reg. 16.93.3 amended by GN R303 of 1 March 1972 and by GN R2703 of 11 December 1981.]

**16.93.3.2** Every vertical shaft or winze where a crosshead is used to guide the bucket or other means of conveyance, shall be equipped with-

- (a) an effective device so arranged as to prevent the bucket or other means of conveyance from being lowered below the shaft bank if it is unaccompanied by the crosshead; and
- (b) an effective device which will prevent the bucket or other means of conveyance and the crosshead from separating unintentionally anywhere in the shaft or winze, or which will automatically warn the winding-engine driver should such separation take place.

[Reg. 16.93.3.2 inserted by GN R2703 of 11 December 1981.]

**16.93.4** No person shall work or be caused or permitted to work at the bottom of the shaft unless protected by an adequate covering extending over the whole area of such shaft, sufficient space only being left therein for the passage of any bucket, skip or other means of conveyance. In a vertical shaft such covering shall be situated not more than 25 metres from the bottom. In an inclined shaft such covering shall be situated not more than 30 metres from the bottom.

[Reg. 16.93.4 amended by GN R303 of 1 March 1972.]

**16.93.4.1** In a shaft or winze being sunk or equipped, clutching may be performed with a sinking platform winder with such persons on the sinking platform necessary to ensure that the operations are carried out safely.

[Reg. 16.93.4.1 inserted by GN 160 of 1 February 1991.]

### **Access to conveyance**

**16.93.5** No person shall enter the conveyance at the bottom of the shaft until the conveyance has been raised and lowered or until some other distinct signal has been received from the winding-engine driver.

**16.93.6** The person in charge of blasting operations shall notify the winding-engine driver by a special signal, namely five knocks or rings, when blasting is about to take place, and, except in the case of firing by electricity, the driver shall reply by raising or lowering the conveyance approximately two metres.

[Reg. 16.93.6 amended by GN R303 of 1 March 1972.]

### **Small winding plants**

**16.94** The prescribed permit shall not be required for a winding plant that is driven by an engine or motor developing not more than 250 kilowatt, provided that such winding plant-

- (a) is not used for the raising or lowering of persons other than persons engaged in repairing or examining a shaft; and
- (b) does not operate in any portion of a shaft or winze in any manner likely to interfere with the conveyance operated in that shaft served by a winding plant for which a prescribed permit has been granted.

[Reg. 16.94 amended by GN R303 of 1 March 1972, deleted by GN R3083 of 20 December 1991 and inserted by GN R2449 of 24 December 1993.]

### **16.94.1 ...**

[Reg. 16.94.1 substituted by GN R2101 of 15 November 1974 and deleted by GN R3083 of 20 December 1991.]

### **16.94.2 ...**

[Reg. 16.94.1 deleted by GN R3083 of 20 December 1991]

**16.95.1** A winding plant, referred to in regulation 16.94, shall not be subject to the provisions of regulations 16.5.1, 16.5.2, 16.7, 16.9 to 16.15 inclusive, 16.18, 16.19, 16.24 to 16.29 inclusive, 16.41.1, 16.41.2, 16.49.1, 16.58 to 16.61 inclusive, 16.74, 16.75 and 16.81: Provided that the manager, or subordinate manager appointed in terms of regulation 2.6.1 shall appoint in writing any competent person to carry out the duties and examinations prescribed in regulation 16.74 and provided further that the engineer, or person appointed in terms of regulation 2.13.2 shall appoint in writing any competent person to examine at least once each week the item specified in regulation 16.74.1.

[Reg. 16.95.1 substituted by GN R3083 of 20 December 1991 and amended by GN R2449 of 24 December 1993.]

**16.95.2** Notwithstanding the provisions of regulations 16.78 and 16.79, a record book or card index system may be provided in place of the machinery record book.

[Reg. 16.95.2 substituted by GN R3083 of 20 December 1991.]

**16.95.3** Notwithstanding the provisions of regulation 16.95.1, a winding rope may not be used for a winding plant contemplated in regulation 16.94 unless-

- (a) its breaking strength, determined by a test on a representative sample as prescribed in regulation 16.25, is at least 10 times the attached load; and
- (b) that part of the winding rope attached to the conveyance or counterweight is cut off and re-terminated at intervals not exceeding six months.

[Reg. 16.95.3 inserted by GN R1325 of 12 November 1999.]

**16.96** The engineer or person appointed in terms of regulation 2.13.2 shall satisfy himself that any person who is not a certificated winding-engine driver, and who shall drive a winding engine not permitted for the conveyance of persons is competent to do so.

[Reg. 16.96 amended by GN 160 of 1 February 1991 and substituted by GN R3083 of 20 December 1991.]

**16.97 ...**

[Reg. 16.97 amended by GN R303 of 1 March 1972 and deleted by GN R3083 of 20 December 1991.]

### **Lifting machine and lifting tackle**

**16.98 ...**

[Reg. 16.98 amended by GN R2703 of 11 December 1981 and by GN R94 of 15 January 1997 and repealed by GN R1225 of 15 December 2005.]

**16.99 to 16.103 inclusive ...**

[Regs. 16.99 to 16.103 inclusive repealed by GN R1225 of 15 December 2005.]

**16.104 ...**

[Reg. 16.104 amended by GN 160 of 1 February 1991 and repealed by GN R1225 of 15 December 2005.]

**Chairlifts**

**16.105** No chairlift installation shall be used for the conveyance of persons unless it is permitted by a prescribed permit for such installation.

[Reg. 16.105 inserted by GN R1885 of 12 September 1980 and deleted by GN R3083 of 20 December 1991 and inserted by GN R2449 of 24 December 1993.]

**16.106** No chairlift shall be installed in any portion of a mine or works where winding plants or moving machinery operates unless the persons using and operating the chairlift are adequately protected from the conveyances, other winding equipment or moving machinery or unless it is so arranged that simultaneous operation of the chairlift and winding plant or other machinery is impossible.

[Reg. 16.106 inserted by GN R1885 of 12 September 1980.]

**16.107** The manager of a mine or works who intends to install and use or modify a chairlift after inurement of this subregulation shall timeously apply in writing to the Principal Inspector of Mines for permission to do so before such installation or modification is commenced.

[Reg. 16.107 inserted by GN R1885 of 12 September 1980 and amended by GN R94 of 15 January 1997.]

**16.108** Each application for permission to install, modify and use a chairlift shall be accompanied by-

- (a) dimensioned drawings in plan, elevation and section to the scale of at least 1 in 100;
- (b) the manufacturer's or supplier's specifications of the proposed installation; and
- (c) full particulars of all ropes and chains intended for use in the installation.

[Reg. 16.108 inserted by GN R1885 of 12 September 1980.]

**16.109 ...**

[Reg. 16.109 inserted by GN R1885 of 12 September 1980 and deleted by GN R3083 of 20 December 1991.]

**16.110** In addition to the requirements of these Regulations the Principal Inspector of Mines may grant permission to use a chairlift subject to such conditions as he may specify.

[Reg. 16.110 inserted by GN R1885 of 12 September 1980 and amended by GN R814 of 13 March 1992 and by GN R94 of 15 January 1997.]

**16.110.1 ...**

[Reg. 16.110.1 inserted by GN R1885 of 12 September 1980 and deleted by GN R3083 of 20 December 1991.]

**16.111** No chairlift shall be used unless-

**16.111.1** it is of good construction, sound material, adequate calculated strength and free from any patent defect;

**16.111.2** it is so used that the safety of persons is not endangered;

**16.111.3** the axis of its line of operation in plan, between stations, is a straight line;

**16.111.4** the slope of the loaded hauling rope or traction chain is less than 45 degrees;

**16.111.5** the distance between the centre lines of two passing chairs or carriers is 900 mm or more and the distance from the centre line of a chair or carrier to a handrail or handrail support or to the sidewall is 500 mm or more along the entire operating length of the chairlift: Provided that at all landing and boarding sites the clearance from the centre line of the chair to the outside is at least 1,5 metres;

**16.111.6** the vertical clearance between the underside of a chair loaded with a passenger and the terrain below it, in underground installations, is not more than 1,5 metres or less than 0,3 metres;

**16.111.7** the minimum spacing in metres between any two consecutive carriers or chairs is equal to or greater than four times the velocity in metres per second for single-seat carriers or five times the velocity in metres per second for two-seat carriers where passengers board and leave simultaneously, or seven times the velocity in metres per second for two-seat carriers where passengers board and leave one after the other;

**16.111.8** the gradient at boarding and landing sites is not more than six degrees and the length of both boarding and landing sites is 6 metres if the installation is designed to convey less than 500 persons per hour and 8 metres if the installation is designed to convey 500 or more persons per hour or equal to the minimum spacing of carriers called for in regulation 16.111.7, whichever is the greater;

**16.111.9** the speed of operation does not exceed 1,5 metres per second for a fixed grip system and does not exceed 3 metres per second for a detachable grip system;

**16.111.10** all components which, whilst in motion, may be a source of danger are out of reach of a passenger when seated normally on the chair;

**16.111.11** the type of carriers used are of a design and construction approved by the Principal Inspector of Mines and are either-

- (a) chairs with one seat equipped with a footrest;
- (b) chairs with two seats, providing a seating width of not less than 0,5 metre per person, equipped with suitable footrests;
- (c) special, easily detachable receptacles attached to the chair or containers to permit the transport of material; or
- (d) special stretcher carriers used for the transportation of stretcher cases.

[Reg. 16.111.11 amended by GN R94 of 15 January 1997.]

[Reg. 16.111 inserted by GN R1885 of 12 September 1980.]

**16.112** Any wire rope used on a chairlift shall be made of steel wire and the bending stiffness of the rope shall be suited to the diameter of the sheaves.

[Reg. 16.112 inserted by GN R1885 of 12 September 1980.]

**16.112.1** Any chain used as a traction chain on a chairlift shall be manufactured from a class of steel approved by the *Chief Inspector*.

[Reg. 16.112.1 inserted by GN R1885 of 12 September 1980 and amended by GN R94 of 15 January 1997.]

**16.112.2** No rope or chain shall be used on a chairlift if the calculated breaking force at any point is less than nine-tenths of the breaking force of the rope or chain when it was new.

**16.112.3** Where a traction chain or rope is used on a chairlift with the carriers running in or on a rope or rail circuit, a safety rope or ropes clamped to each carrier shall be provided to prevent runback in the event of the traction chain or rope breaking.

**16.112.4** Any rope or chain forming part of a chairlift installation shall have a factor of safety of at least six, calculated on its static load.

**16.112.5** In calculating the total mass of persons for the purpose of regulation

**16.112.4** 70 kilograms shall be allowed for each person.

**16.112.6** Splices in ropes forming part of a chairlift installation shall be made by experienced persons and the length of such splice shall not be less than 1 200 times the rope diameter. Whenever clamps are used on ropes the clamps used shall be sufficient in number to ensure an efficient joint.

**16.112.7** Except with the written permission of the Principal Inspector of Mines, not more than two splices shall be allowed along a closed loop forming a carrying-hauling rope. Where more than one splice is made the clear distance between successive splices shall be at least 3 000 times the diameter of the rope.

[Reg. 16.112.7 inserted by GN R1885 of 12 September 1980 and amended by GN R94 of 15 January 1997.]

**16.113** The force exerted by a carrying-hauling rope on each supporting roller shall be positive when the system is operating unloaded.

[Reg. 16.113 inserted by GN R1885 of 12 September 1980.]

**16.114** The carrier of a chairlift installation shall be free to incline itself in the direction of travel with respect to the vertical by an amount equal to the inclination of the installation. Swinging shall be restricted to within practical limits.

[Reg. 16.114 inserted by GN R1885 of 12 September 1980.]

**16.115** The passage of carriers around the sheaves shall not be a source of danger to passengers who have been unable to alight.

[Reg. 16.115 inserted by GN R1885 of 12 September 1980.]

**16.116** The driving motor of a chairlift shall be-

**16.116.1** of adequate power to ensure starting the chairlift under the most unfavourable conditions;

**16.116.2** stopped automatically when any brake is applied or if any safety device is operated;

**16.116.3** provided with a reverse phase relay or other equivalent protection to prevent the reversal of the driving motor through an inadvertent reversal of the phases if the motor is supplied with polyphase alternating current.

[Reg. 16.116 inserted by GN R1885 of 12 September 1980.]

**16.117.1** Every chairlift installation shall be equipped with two independent brakes, a main brake and a back-up brake, so designed that either brake is capable of holding, without slipping, the chairlift installation when loaded in such a way that the maximum static torque is produced on the brake. The provisions of this subregulation are applicable even if the installation is fitted with a special device which will automatically prevent reverse movement of the carriers.

**16.117.2** Both brakes shall be so designed that they are automatically applied when the power supply to the driving motor is interrupted or if any safety device is operated.

**16.117.3** The main brake of the chairlift shall operate on the driving sheave or on the shaft of the driving sheave and not on any intermediate shaft.

[Reg. 16.117 inserted by GN R1885 of 12 September 1980.]

**16.118** An emergency stopping device, which interrupts the power to the driving motor, shall be provided along the full length of the chairlift installation and shall be so arranged that it can easily be brought into operation by any passenger travelling on the chairlift.

[Reg. 16.118 inserted by GN R1885 of 12 September 1980.]

**16.119** Every passenger boarding and landing site as well as the entire length of the chairlift installation shall be adequately illuminated at all times underground and at night on the surface, whenever the chairlift is in use.

[Reg. 16.119 inserted by GN R1885 of 12 September 1980.]

**16.120.1** Except where some other warning system, approved by the Principal Inspector of Mines, is installed, every chairlift installation shall be equipped with an alarm or warning system, audible along the entire length of the installation, and such alarm or warning system shall be actuated automatically before the chairlift is set in motion.

[Reg. 16.120.1 inserted by GN R1885 of 12 September 1980 and amended by GN R94 of 15 January 1997.]

**16.120.2** Every place where a chairlift is installed such that the inclination exceeds 20 degrees to the horizontal and where passengers are able to alight anywhere along its length when it is stationary, shall be provided with an emergency ladderway so arranged that it is either separate from the installation or situated between the carriers.

**16.120.3** Where the ladderway is between the carriers, chairlift attendants responsible for starting and stopping the installation shall be stationed at each boarding and landing site and their duty shall also be to ensure that the chairlift is not set in motion while persons are on the ladderway.

**16.120.4** Where the ladderway is separate from, but adjacent to, the chairlift installation, it shall be provided with a smooth handrail separating it from the chairlift.

[Reg. 16.120 inserted by GN R1885 of 12 September 1980.]

**16.121.1** No person shall travel on a chairlift with material other than articles which are unlikely to endanger him or any other person and for which permission has been granted by the manager, mine overseer, engineer or competent person appointed in terms of regulation 2.13.2, as the case may be.

[Reg. 16.121.1 inserted by GN R1885 of 12 September 1980 and amended by GN 160 of 1 February 1991.]

**16.121.2** At all boarding and landing sites the manager shall cause a list to be kept of all articles for which permission has been granted in terms of regulation 16.121.1 and he shall ensure that all persons concerned are made aware of the articles included on the list.

[Reg. 16.121 inserted by GN R1885 of 12 September 1980.]

**16.122** No person travelling on a chairlift and no person in the vicinity of a chairlift installation shall in any way interfere or attempt to interfere with the equipment of the chairlift or any other person travelling on the chairlift or any other person who is in the vicinity of the chairlift.

**16.123.1** The complete chairlift installation or any part thereof shall be examined regularly by such persons and at such intervals as may be determined by an engineer or competent person appointed in terms of regulation 2.13.2, as the case may be, having regard to the duty and frequency of operation of the installation:

Provided that the Principal Inspector of Mines may insist on more frequent inspections or inspections by such other persons as he may deem necessary.

[Reg. 16.123.1 inserted by GN R1885 of 12 September 1980 and amended by GN 160 of 1 February 1991 and by GN R94 of 15 January 1997.]

**16.123.2** A written record of each such inspection shall be kept by the person or persons responsible for the inspection in a book specially provided for the purpose by the manager.

[Reg. 16.123 inserted by GN R1885 of 12 September 1980.]

## CHAPTER 17

### ELEVATORS

**17.1.1** No elevator shall be used unless a prescribed permit for its use has been issued by the Principal Inspector of Mines.

[Reg. 17.1.1 deleted by GN R3083 of 20 December 1991 and inserted by GN R2449 of 24 December 1993 and by GN R94 of 15 January 1997.]

**17.1.2** No elevator shall be used for the conveyance of persons unless it is permitted by a prescribed permit for such elevator.

[Reg. 17.1.2 deleted by GN R3083 of 20 December 1991 and inserted by GN R2449 of 24 December 1993.]

**17.2.1** The manager of a mine or works who intends to install, use or modify an elevator shall apply in writing to the Principal Inspector of Mines on the form obtainable from him.

[Reg. 17.2.1 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997.]

**17.2.2** The application for the installation and use of an elevator shall be accompanied by-

- (a) dimensioned drawings of the machine room in plan and elevation to the scale of at least 1 in 50;
- (b) [Para. (a) amended by GN R303 of 1 March 1972.]
- (c) dimensioned drawings of the installation in plan and elevation;
- (d) a diagram of all the electrical circuits of the installation; and
- (e) particulars of the ropes as detailed in regulation 17.3.4 (b) and of their connections.

**17.2.3 ...**

[Reg. 17.2.3 deleted by GN R3083 of 20 December 1991.]

**17.2.4 ...**

[Reg. 17.2.4 deleted by GN R3083 of 20 December 1991.]

**17.2.5** If any permit is lost, defaced or destroyed, the manager shall apply in writing to the Principal Inspector of Mines for the issue of a duplicate permit. The application shall have affixed to it uncancelled revenue stamps to the value of R50.

[Reg. 17.2.5 amended by GN R1189 of 8 June 1979 and by GenN 160 of 1 February 1991 and by GN R94 of 15 January 1997.]

**17.2.6** The permit shall be displayed in a suitable glazed and locked sealed frame in a conspicuous place inside the car or at any other place approved by the Principal Inspector of Mines.

[Reg. 17.2.6 amended by GN R94 of 15 January 1997.]

**17.3.1** The Principal Inspector of Mines shall provide the manager with an Elevator Inspection Register for each elevator in which the regional mining engineer (mining equipment) shall record the result of each of his examinations.

[Reg. 17.3.1 amended by GN R1189 of 8 June 1979 and by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**17.3.2** The manager shall keep the register in a safe place at the mine or works.

**17.3.3** If the register is lost, defaced or destroyed, the manager shall apply in writing to the Principal Inspector of Mines for the issue of a duplicate register. The application shall have affixed to it uncancelled revenue stamps to the value of R100.

[Reg. 17.3.3 amended by GN R1189 of 8 June 1979 and by GenN 160 of 1 February 1991 and by GN R94 of 15 January 1997.]

**17.3.4** The manager shall provide for each elevator an Elevator Record Book in which shall be entered-

- (a) the name or names of the competent person or persons appointed to carry out the examinations prescribed in regulations 17.5.1 and 17.5.2;
- (b) the following particulars of every winding rope and balance rope:

Name of manufacturer;

Date of manufacture;

Coil number;

Length in metres;

Diameter in millimetres;

Mass per metre in kilograms;

Construction of rope:

Type of lay;

Number of strands;

Class of heart;

Construction of strands:

Number of wires;

Diameters of wires in millimetres;

Class of core;

Class of steel in wires;

Tensile strength of steel in megapascals;

Breaking force in kilonewtons;  
Rope test certificate and place of test;  
Purpose of use;  
Date put on;  
Dates of recapping, shortening or turning end for end;  
Date taken off;  
Factor of safety (static); and

[Para. (b) amended by GN R303 of 1 March 1972.]

- (c) a true report of every examination prescribed in regulations 17.5.1 and 17.5.2 and details of any repairs or alterations made. The report shall be signed by the person who carried out the inspection or effected the repairs or alterations.

**17.4.1** The following particulars shall be marked in a conspicuous place inside the car or in a place the Principal Inspector of Mines may direct-

- (a) The name of the maker;
- (b) The maximum mass of material or mineral permitted to be conveyed in the car;
- (c) The maximum number of persons permitted to travel in the car at one time;
- (d) The official number allocated to the elevator by the Principal Inspector of Mines.

[Para. (d) amended by GN R94 of 15 January 1997.]

[Reg. 17.4.1 amended by GN R94 of 15 January 1997.]

**17.4.2** Where machinery of more than one elevator is installed in the same room, the machinery and switch gear for the elevator shall be distinctly and separately marked.

**17.4.3** The driving motor of every elevator shall be distinctly marked to indicate the direction of rotation for upward and downward movement of the car.

**17.4.4** A diagram of the electrical circuits of the installation shall be displayed in a suitable frame in the motor room.

**17.5.1** The Manager, engineer or person appointed in terms of regulation 2.13.2 shall assign any competent person, to examine at least once in each week the hatchway, guides, ropes and rope attachments, the engine or motor, the drums and sheaves and all safety appliances.

[Reg. 17.5.1 amended by GN 160 of 1 February 1991 and by GN R3083 of 20 December 1991.]

**17.5.2** An engineer or a competent person appointed in terms of regulation 2.13.2, as the case may be, shall examine carefully at least once in each month the elevator and all its fittings and appliances. At this examination the ropes supporting the elevator car and counterpoise, the balance ropes or chains, if fitted, shall be thoroughly cleaned at selected places for the purpose of ascertaining the amount of deterioration thereof.

[Reg. 17.5.2 amended by GN R303 of 1 March 1972 and by GN 160 of 1 February 1991.]

**17.5.3** If as a result of examination, any weakness or defect is found whereby the safety of any person is or may be endangered, the defect shall be reported in writing without delay to the manager or an engineer or competent person appointed in terms of regulation 2.13.2, as the case may be, and no person shall be conveyed until the defect has been rectified.

[Reg. 17.5.3 amended by GN 160 of 1 February 1991.]

**17.5.4** Adequate precautions shall be taken to prevent any person from using the elevator-

- (a) while it is being operated from the motor room; or
- (b) while examination, servicing or any work is being done in the hatchway.

**17.5.5** When a landing door or other gate is required to be open while an elevator is being examined, serviced, or repaired or while any other work is being done in the hatchway, an effective barrier shall be provided and used to prevent inadvertent access to the hatchway.

**17.6.1** Whenever a regional mining engineer [sic] intends inspecting an elevator he shall notify the manager of the date and time of such inspection.

It was probably intended to substitute 'Principal Inspector of Mines' for 'regional mining engineer'.

[Reg. 17.6.1 amended by GN R94 of 15 January 1997.]

**17.6.2** The manager shall, after notification, cause all ropes and machinery to be thoroughly cleaned and prepared for the inspection.

**17.6.3** The manager shall place free of charge at the disposal of the regional mining engineer, workmen, tools, and any other equipment which may be required for the purpose of carrying out the inspection.

[Reg. 17.6.3 amended by GN R3083 of 20 December 1991.]

**17.6.4** Any manager who fails without good reason to have the elevator cleaned and ready for inspection on the date and at the time notified or who fails to provide the necessary facilities for the inspection, shall be guilty of an offence. The manager shall apply in writing within seven days of the date on which the inspection should have taken place for a new date and time to be specified for the inspection and shall affix uncancelled revenue stamps to the value of R250 to his application.

[Reg. 17.6.4 amended by GN 160 of 1 February 1991.]

**17.7.1** The Principal Inspector of Mines shall determine the maximum number of persons and the maximum mass of material or mineral that may be conveyed in the elevator at any one time. In calculating the total mass of persons for the purpose of these Regulations, 70 kilograms shall be allowed for each person.

[Reg. 17.7.1 amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997.]

**17.7.2** Except with the written permission of the Principal Inspector of Mines, the manager shall not cause or permit any person other than an attendant or an operator to travel, and no person other than the attendant or operator shall travel, in a car while material is being conveyed in such car.

[Reg. 17.7.2 amended by GN R94 of 15 January 1997.]

**17.7.3** No person shall travel in a car while mineral is being conveyed.

**17.7.4** No person shall be conveyed in a car while material or mineral is being conveyed in a conveyance attached to the car.

**17.8.1** Every elevator shall be under the charge of and operated by a competent person referred to as the operator, not less than 17 years of age and who shall have received training for not less than six shifts and who shall have been properly instructed regarding the dangers attaching to the operation of an elevator.

**17.8.2** No person other than the operator shall operate the elevator.

**17.8.3** The operator shall not absent himself from the elevator during the period he is in charge unless he has ensured that the elevator cannot be operated by any unauthorised person.

**17.8.4** The operator shall be responsible for the locking of every door or gate at a landing before the car is moved from the landing. He shall cease to use the elevator should any defect be found whereby the safety of any person is or may be endangered.

**17.8.5** The provisions of regulations 17.8.1 to 17.8.4 inclusive, shall not apply to an automatic elevator arranged to be controlled by push button.

## Hatchways

**17.9** Where a hatchway is not enclosed by walls, access to the hatchway from any adjacent stairway, platform or floor, which is not a landing shall be prevented by means of an adequate brattice or grill work to a height of at least two metres. The complete space above any hatchway landing door or gate shall be closed by bratticing or grill work. A space of not more than 40 millimetres shall be permitted between any two members of the bratticing or grill work, which shall be maintained in good order.

[Reg. 17.9 amended by GN R303 of 1 March 1972.]

**17.10.1** Every landing entrance to the hatchway shall be provided with a substantial door or doors or a shutter-type gate or gates at least 1,8 metres in height, the inner surface of which when closed shall be flush, as nearly as practicable, with the inside of the hatchway.

[Reg. 17.10.1 amended by GN R303 of 1 March 1972.]

**17.10.2** Vertical sliding doors shall not be fitted at any landing except with the written permission of the Principal Inspector of Mines.

[Reg. 17.10.2 amended by GN R94 of 15 January 1997.]

**17.10.3** Except at a landing, no door shall be provided to a hatchway unless permitted or required by the Principal Inspector of Mines in writing and then only if the provisions of regulation 17.16.1 are complied with.

[Reg. 17.10.3 amended by GN R94 of 15 January 1997.]

**17.10.4** Where a landing door is coupled mechanically to a car door or gate for the purpose of opening or closing, a device shall be provided which automatically retracts the door or gate if it is obstructed in any way during closing. The device for closing any door or gate automatically shall be so adjusted that the force with which the door or gate closes will not cause injury to any person.

**17.11.1** Every landing entrance to the hatchway shall be provided with the following devices, constructed or situated so as to be inaccessible to any unauthorised person-

- (a) A mechanical lock which operates in conjunction with an electrical circuit breaker arranged so that the car can be moved by power only when every landing door is closed and locked and no landing door can be opened unless the car is at rest at that landing;

- (b) An additional circuit breaker arranged so that a car can be moved by power only when every landing door or gate is closed.

**17.11.2** The circuit breakers referred to in regulation 17.11.1 shall be in two separate control circuits.

**17.11.3** Where any car door or gate is coupled mechanically with a landing door or gate for the purpose of opening and closing, the provisions of regulation 17.11.1(b) shall not apply.

**17.11.4** Every landing entrance to the hatchway of an elevator controlled by an operator shall be fitted with-

- (a) a substantial mechanical lock which cannot be opened from outside unless the car is at rest at the landing; and
- (b) a circuit breaker arranged so that the car can be moved by power only when every door or gate is closed and constructed or situated so as to be inaccessible to any unauthorised person.

**17.11.5** Notwithstanding the provisions of regulations 17.11.1 to 17.11.4 inclusive, any landing door may be caused to open before the car comes to rest at the landing, subject to the conditions prescribed under regulation 17.22.4.

**17.11.6** Every door or gate opening into the hatchway shall be kept locked when not in use.

**17.12.1** Where a car is fitted with a lattice-type gate, every projection in the hatchway, including every door-lintel if the landing door is not flush with the inside of the hatchway, shall be rendered safe by a bevelled approach on the hatchway side facing the opening of the car or where possible by a suitable facia.

**17.12.2** No bevel shall be less than 70 degrees to the horizontal and the bevelled surface shall be covered with smooth metal.

**17.13.1** Every car and every counterpoise shall be guided throughout its travel by guides of substantial construction, securely fastened in the hatchway.

[Reg. 17.13.1 amended by GN R303 of 1 March 1972.]

**17.13.2** The hatchway construction, the guides and means of securing the guides, shall be able to withstand effectively the application of the safety catches as well as any other force resulting from the normal operation of the elevator.

**17.13.3** The bottom end of any guide rail shall rest on a secure foundation and shall be fixed firmly in that position.

**17.13.4** The top end of any rail shall not be fixed in the ceiling of the hatchway.

**17.13.5** No wooden guide shall be installed if the speed of the car exceeds 0,5 metres per second.

[Reg. 17.13.5 amended by GN R303 of 1 March 1972.]

**17.13.6** No cast-iron or hollow-metal guide shall be installed.

**17.13.7** The counterpoise guides shall be enclosed by bratticing from a point 300 millimetres above the floor of the hatchway to a point at least two metres above the floor of the hatchway, except where a compensating chain or rope attached to the counterpoise precludes the use of this bratticing.

[Reg. 17.13.7 amended by GN R303 of 1 March 1972.]

**17.14** Directly under every sheave at the top of the hatchway, unless the sheave is separated from the hatchway by a floor of adequate strength, there shall be provided and placed a substantial grating or screen of iron or steel having a space of not more than 40 millimetres between any two members of the grating or screen.

[Reg. 17.14 amended by GN R303 of 1 March 1972.]

**17.15.1** Every hatchway in which a car operates at a speed of up to and including 1,8 metres per second shall be provided with spring, air or hydraulic buffers. Every hatchway in which the car operates at speed exceeding 1,8 metres per second shall be provided with hydraulic buffers. The buffers shall be placed at the bottom of the hatchway directly beneath both the car and counterpoise or shall be attached to the bottom of the car and the bottom of the counterpoise.

[Reg. 17.15.1 amended by GN R303 of 1 March 1972 and by GN R2101 of 15 November 1974.]

**17.15.2** Every buffer shall be of substantial construction and the buffers shall be capable of absorbing gradually and smoothly the energy of a fully loaded car travelling at the speed at which the governor is set to trip.

**17.16.1** Where a door is fitted to give access to the bottom of the hatchway such door shall operate a circuit breaker which will prevent the elevator from working while the door is open.

**17.16.2** Where a door is not provided to give access to the bottom of the hatchway and where the floor of the hatchway is more than 1,5 metres below the bottom landing, a permanently fixed metal ladder shall be provided to give such access.

[Reg. 17.16.2 amended by GN R303 of 1 March 1972.]

**17.16.3** One or more manually operated switches, which shall immobilize the elevator, shall be fitted in the hatchway within easy reach of the bottom landing and the floor of the hatchway.

**17.17** Where two or more cars operate in one hatchway, the bottom of the hatchway for each elevator shall be separated from the adjacent elevator or from any winding plant compartment by a wall or brattice to a height of at least two metres above the floor of the hatchway.

[Reg. 17.17 amended by GN R303 of 1 March 1972 and by GN 160 of 1 February 1991.]

**17.18.1** A clear space of not less than 600 millimetres shall be provided between the bottom of the hatchway and the lowest point or projection on the underside of the car when the car rests on the fully-compressed buffer, but guide shoes or rollers, safety jaw assemblies, aprons and guards need not be taken into account when determining the lowest point of the car: Provided that where the car operates at a speed exceeding three metres per second the clear space shall be at least three metres.

[Reg. 17.18.1 amended by GN R303 of 1 March 1972 and by GN R2101 of 15 November 1974.]

**17.18.2** When the car rests on its fully-compressed buffer, the car or any equipment attached thereto shall not come into contact with the floor of the hatchway or any part of the equipment located at the bottom of the hatchway.

**17.18.3** When the car is at rest at the lowest landing there shall be a clearance of not less than 300 millimetres between the buffer striking face and the face of the fully extended buffer.

[Reg. 17.18.3 amended by GN R303 of 1 March 1972.]

**17.18.4** Clearance shall be provided at the top of the hatchway so that the car can travel a distance of at least one metre above the top landing without the car or any attachments thereto coming into contact with any part of the hatchway or any equipment located at the top of the hatchway: Provided that where the car operates at a speed exceeding three metres per second the clearance shall be at least three metres. When the car is resting on the fully-compressed buffer, clearance shall be provided at the top of the hatchway so that the counterpoise or any attachments thereto will not come into contact with any part of the hatchway or any equipment located therein.

[Reg. 17.18.4 amended by GN R303 of 1 March 1972 and by GN R2101 of 15 November 1974.]

**17.18.5** The clearance between the elevator car and any portion of the hatchway enclosure shall not be less than 25 millimetres except on the entrance side of the car where the clearance between the sill and the landing sill shall be not less than 10 millimetres nor more than 30 millimetres.

[Reg. 17.18.5 amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974.]

**17.18.6** The clearance between the car and the counterpoise shall be not less than 50 millimetres and the clearance between the counterpoise and any portion of the hatchway enclosure shall be not less than 20 millimetres.

[Reg. 17.18.6 amended by GN R303 of 1 March 1972.]

**17.18.7** Where a counterpoise screen is fitted, the clearance between the screen and car shall be not less than 25 millimetres and the clearance between the screen and the counterpoise shall be not less than 20 millimetres.

[Reg. 17.18.7 amended by GN R303 of 1 March 1972.]

**17.18.8** When the car of an automatic elevator is at rest at a landing, the distance between the leading edge of the car door or gate during closing and the landing door or gate shall not be more than 100 millimetres.

[Reg. 17.18.8 amended by GN R303 of 1 March 1972.]

**17.19.1** In every hatchway there shall be provided devices arranged so that the power supply to the elevator is automatically cut off when the car is in a position not more than 300 millimetres above the top landing or not more than 300 millimetres below the bottom landing. In the case of an electrically operated elevator these devices shall be so arranged so that all current is cut off, independently of any other operating device, and further movement of the car under power in the direction of overtravel is prevented.

[Reg. 17.19.1 amended by GN R303 of 1 March 1972.]

**17.19.2** Every hoist operating a car by means of a winding drum shall be provided with an automatic stopping device to guard against overwinding.

## **Counterpoises**

**17.20.1** The sections of every counterpoise shall be secured together to prevent them from becoming detached. The counterpoise shall be situated so that it cannot fall upon any part of the elevator or on any machinery and it shall operate in guides so that it will travel freely without danger of becoming detached.

[Reg. 17.20.1 amended by GN R303 of 1 March 1972.]

**17.20.2** In every building where the hatchway does not extend to the lowest floor and where the space underneath the hatchway is accessible to any person at any time, the counterpoise shall be provided with safety catches and a circuit breaker arranged so that the power supply to the elevator is automatically cut off when the safety catches come into operation.

[Reg. 17.20.2 amended by GN R303 of 1 March 1972.]

### Cars

**17.21.1** Every car shall be of substantial construction, enclosed on all sides which are not entrances and the top covered with a substantial roof.

**17.21.2** In every car provision shall be made for adequate ventilation through the car at all times.

**17.22.1** Every car shall be provided with a door or doors or a gate or gates each of which shall operate an electrical circuit breaker arranged so that the car cannot be moved by power when any door or gate is open.

**17.22.2** No car shall be fitted with a lattice-type gate except with the written permission of the Principal Inspector of Mines.

[Reg. 17.22.2 amended by GN R94 of 15 January 1997.]

**17.22.3** Every door or gate of an automatic elevator shall open and close automatically and, unless it is mechanically coupled to the landing door for the purpose of opening and closing, the car door or gate shall not start to close until the landing door or gate is closed: Provided that a lattice-type gate need not open or close automatically.

[Reg. 17.22.3 substituted by GN R2101 of 15 November 1974.]

**17.22.4** Notwithstanding the provisions of regulation 17.22.1, any door of a car may be caused to open before the car comes to rest at a landing if the car is fitted with an automatic levelling device which operates in conjunction with the devices causing the doors to open when the car enters the levelling zone, provided that the levelling zone does not exceed more than 400 millimetres above or below any landing, the speed of the car within the levelling zone does not exceed 0,2 metres per second, and apron of not less than 450 millimetres long is fitted to the car and, where there is a bevelled approach in terms of regulation 17.12.1, the bevelling is not less than 450 millimetres long.

[Reg. 17.22.4 amended by GN R303 of 1 March 1972.]

**17.23** The car of any automatic elevator which serves more than two landings shall be fitted with a retiring cam arranged so that no manually operated landing door or gate can be opened unless the car is at rest at the landing.

**17.24.1** Every car shall be provided with-

- (a) a button, marked 'alarm', inside the car whereby a bell, buzzer or siren may be sounded;
- (b) a switch, attached to the suspension beam on top of the car, to enable the car to be stopped during servicing or inspection; and
- (c) an electric light inside the car, which shall be kept on when the elevator is available for use and when it is being serviced.

**17.24.2** Every electric alarm and light required to be provided in terms of regulation 17.24.1 shall be connected to a circuit other than that of the power supply to the elevator driving machinery.

**17.25.1** Every car suspended by ropes shall be provided with efficient safety catches which, on test under statical conditions, shall be capable of holding in any position in the hatchway the car together with twice the maximum authorised load.

**17.25.2** The Principal Inspector of Mines may conduct a test of the safety catches with the car in motion but shall only do so when there is no load in the car.

[Reg. 17.25.2 amended by GN R94 of 15 January 1997.]

**17.25.3** Where safety catches are operated through shafting, any lever and every safety catch shall be keyed or welded to the shafting.

**17.25.4** A switch, arranged to automatically break the circuit controlling the power supply to the elevator when the safety catches come into operation, shall be fitted on top of the car in an accessible position.

**17.25.5** No cam type or other instantaneous grip type safety catch shall be fitted where the speed of the car is greater than one metre per second.

[Reg. 17.25.5 amended by GN R303 of 1 March 1972.]

**17.26** A suitable locking grip shall be provided for every hand starting rope, rod or chain in any car through which such rope, rod or chain passes.

**17.27.1** Every rope from which a car or counterpoise is suspended shall be of steel wire, of good quality and sound manufacture, free from any visible defects and of adequate strength.

[Reg. 17.27.1 amended by GN R303 of 1 March 1972 and by GN R2703 of 11 December 1981.]

**17.27.2** The gauge of the wires in the rope shall be suited to the diameter of the sheave or drum over which the rope passes and the diameter of the sheave or drum shall be not less than 40 times the diameter of the rope.

**17.27.3** Every car or counterpoise operated by ropes shall be suspended by at least two ropes which shall be of equal diameter and strength.

[Reg. 17.27.3 amended by GN R303 of 1 March 1972.]

**17.27.4.1** The ropes supporting a car or counterpoise shall not be used when the estimated aggregate breaking force of all ropes supporting the car or counterpoise has become reduced to less than 10 times the effective weight-load, whichever is the greater of-

- (a) the combined mass of the car, its attachments and any balance rope or chain; or
- (b) the combined mass of the counterpoise, its attachments and any balance rope or chain.

[Reg. 17.27.4.1 amended by GN R303 of 1 March 1972.]

**17.27.4.2** In determining the minimum allowable breaking force of any rope used for supporting a car or counterpoise the weight in newtons of any mass carried by the rope shall be obtained by multiplying this mass in kilograms by the factor 9,8.

[Reg. 17.27.4.2 amended by GN R303 of 1 March 1972.]

**17.27.5** Before any winding or balance rope is used on an elevator, full particulars thereof as detailed in regulation 17.3.4 (b) shall be supplied to the Principal Inspector of Mines.

[Reg. 17.27.5 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997.]

**17.27.6** The breaking force of any new winding rope or balance rope put on anew shall be ascertained by actual test.

[Reg. 17.27.6 amended by GN R303 of 1 March 1972.]

**17.28** Where the end of any winding rope is secured to the drum, there shall be at least three full turns of rope on the drum when the car or counterpoise has reached its limit.

[Reg. 17.28 amended by GN R303 of 1 March 1972.]

**17.29.1** Every connection between a winding rope and the car, counterpoise, drum or the hatchway structure shall be designed to prevent accidental disconnection and shall have a strength not less than the breaking strength of the rope. The end of the rope shall be attached of an independent connection and an appliance shall be provided to distribute equally the load between the ropes.

[Reg. 17.29.1 amended by GN R303 of 1 March 1972.]

**17.29.2** Every winding rope required to be secured to the hatchway structure shall be anchored to the beams supporting the elevator driving machinery or to suitable rolled-steel sections provided for this purpose.

**17.29.3** Every connection in respect of any winding rope shall be renewed at intervals not exceeding 10 years or whenever the ropes are changed, whichever is the shorter period.

[Reg. 17.29.3 amended by GN 160 of 1 February 1991.]

**17.30** Where a rope is not secured to the elevator drum or sheave, the construction shall be such that no dangerous slipping of the rope on the drum or sheave shall occur under any possible working conditions.

### **Elevator machinery**

**17.31.1** The overhead driving machinery of every elevator shall be supported on beams constructed of rolled-steel sections or of reinforced concrete having sufficient strength to carry the total maximum loading and every end shall rest on a wall or pillar of adequate strength.

**17.31.2** The driving machinery shall be secured in position and shall be capable of developing sufficient power to raise at least 115 per cent of the maximum authorised load in the car.

**17.32.1** Where the driving machinery is operated by a motor or by an engine, there shall be provided an efficient brake designed so as to hold the car at rest in any position in the hatchway when the car is loaded with at least 1,5 times its maximum authorised load.

**17.32.2** The brake shall be constructed so that it is automatically applied when the driving machinery is not in operation and when any stopping or electrical protective device comes into operation.

**17.32.3** The brake of every electrically operated driving machine shall be arranged so that it cannot be released during normal operation before power has been applied to the driving motor.

**17.33.1** Every car suspended by a rope shall be equipped with a speed governor to operate the safety catches.

**17.33.2** Where any counterpoise is fitted with safety catches a separate speed governor to operate such safety catches shall be provided.

[Reg. 17.33.2 amended by GN R303 of 1 March 1972.]

**17.33.3** Every speed governor shall be set to trip at a speed of not less than 115 per cent and not more than 140 per cent of the permitted speed of the car. Where a speed governor for a counterpoise is fitted, it shall be set to trip at a speed greater than, but not more than 10 per cent greater than, the speed at which the governor for the car is set to trip.

[Reg. 17.33.3 amended by GN R303 of 1 March 1972.]

**17.33.4** Where the driving machinery is not governed effectively, there shall be provided a reliable speed safety device to control the speed of the machinery within safe limits.

**17.34.1** Except for trailing cables, the electrical wiring of every elevator shall be in screwed conduits or ducting unless suitably sheathed cables are used.

**17.34.2** Except for the lighting circuit, the electrical installation of every elevator shall be provided with a main switch in the motor room. This switch shall be placed in an easily accessible position as close to the main entrance to the motor room as practicable.

**17.34.3** The motor of every elevator supplied with polyphase alternating current shall be provided with a reverse phase relay or other equivalent protection to prevent the reversal of the driving motor through an inadvertent reversal of the phases.

**17.35** The motor room of every elevator-

(a) shall be of ample size with a clear space of not less than 600 millimetres on at least three sides of each machine;

[Para. (a) amended by GN R303 of 1 March 1972.]

(b) shall be at least two metres high measured from the floor to the underside of the lowest portion of the roof structure;

[Para. (b) amended by GN R303 of 1 March 1972.]

(c) shall contain only equipment which forms part of the elevator installation;  
(d) shall not be used as a store-room for oil, grease, tools and any other material; and

- (e) shall be kept locked except when an inspection is being made or when work in connection with the operation of the elevator is in progress. A key to the lock shall be kept readily available.

## **CHAPTER 18**

### **TRACTION**

[Chapter 18 substituted by GN 160 of 1991 and amended by GN R814 of 1992.]

#### **18.1.1 and 18.1.2 ...**

[Regs. 18.1.1 and 18.1.2 repealed by GN R583 of 2004.]

#### **18.1.3 ...**

[Reg. 18.1.3 amended by GN R303 of 1 1972 and by GN R2101 of 1974 and repealed by GN R583 of 2004.]

#### **18.1.4 ...**

[Reg. 18.1.4 amended by GN R1189 of 8 June 1979, deleted by GN R1885 of 12 September 1980, inserted by GenN 160 of 1 February 1991 and repealed by GN R583 of 14 May 2004.]

#### **18.1.5 .....**

[Reg. 18.1.5 repealed by GN R583 of 14 May 2004.]

#### **18.1.6 ...**

[Reg. 18.6.1 amended by GN R3083 of 20 December 1991 and repealed by GN R583 of 14 May 2004.]

**18.1.7** Whenever a person who was authorised to drive a self-propelled mobile machine has, for any reason whatsoever, not driven such machine for a period of 180 days or longer, he may be authorised to drive such machine: Provided that the provisions of regulation 18.1.2(d) are complied with.

**18.2.1** Except where a self-propelled mobile machine is designed to be driven with the driver standing or walking no person shall drive or be permitted to drive such machine unless he is properly positioned in a seat provided for the driver.

#### **18.2.2.1 ...**

[Reg. 18.2.2.1 substituted by GN R802 of 19 June 1998 and repealed by GN R583 of 14 May 2004.]

**18.2.2.2 ...**

[Reg. 18.2.2.2 repealed by GN R583 of 14 May 2004.]

**18.3.1** No person shall travel on or in any self-propelled mobile machine, vehicle attached to a haulage rope or vehicle operated by machinery in or on a haulage way, unless such travelling has been authorised by the manager, mine overseer, engineer or competent person appointed in terms of regulation 2.13.2.

**18.3.2** The manager, mine overseer, engineer or competent person appointed in terms of regulation 2.13.2 may authorise the regular conveyance of persons in or on any self-propelled mobile machine, rolling stock, vehicle operated by machinery in or on a haulage way: Provided that such machine, rolling stock or vehicle has been approved by the Principal Inspector of Mines: Provided further that the provisions of this regulation shall not apply to the conveyance of persons-

- (a) in or on a conventional motor vehicle; and
- (b) necessary for the working of such self-propelled mobile machine.

[Reg. 18.3.2 amended by GN R303 of 1 March 1972, by GN R814 of 13 March 1992 and by GN R94 of 15 January 1997.]

**18.3.3 ...**

[Reg. 18.3.3 repealed by GN R583 of 14 May 2004.]

**18.3.4** No person shall board or alight from a self-propelled mobile machine, any rolling stock or any vehicle operated by machinery, other than an underground train as contemplated in Mine Health and Safety Act regulation 8.2, while it is in motion: Provided that this regulation shall not apply to-

- (a) any person riding a man-trolley attached to an endless rope haulage; or
- (b) a trained or trainee shunter engaged in shunting operations on the surface:

Provided further that the speed of the locomotive, rolling stock or vehicle does not exceed 10 kilometres per hour.

[Reg. 18.3.4 repealed by GN R583 of 14 May 2004 and inserted by GN R584 of 14 May 2004.]

**18.4.1 ...**

[Reg. 18.4.1 substituted by GN R1885 of 12 September 1980 and by GenN 160 of 1 February 1991 and repealed by GN R583 of 14 May 2004.]

**18.4.2.1 and 18.4.2.2 ...**

[Regs. 18.4.2.1 and 18.4.2.2 repealed by GN R583 of 14 May 2004.]

**18.4.2.4** When any machine, rolling stock or vehicle is parked in or near a haulage way, the minimum clearance between such parked machine, rolling stock or vehicle and any moving machine, rolling stock or vehicle shall not be less than 500 millimetres.

[Reg. 18.4.2 substituted by GN R1885 of 12 September 1980 and by GenN 160 of 1 February 1991.]

**18.5.1** No locomotive or train may be run at a greater speed than 10 kilometres per hour over a level crossing unless-

- (a) the level crossing is closed off by gates which are operated manually and automatically to prevent a vehicle from entering the level crossing when a train is approaching the level crossing or moving across such level crossing;
- (b) effective warning devices, activated by any approaching locomotive or train, are installed to warn any approaching vehicle or person; or
- (c) the level crossing is manned at all times.

**18.5.2** A person driving or in control of a locomotive or train shall not cross any road at a level crossing unless he has given sufficient warning to users of the road of the intention to cross such road with such locomotive or train.

**18.5.3.1** No locomotive or train may be run unless it is equipped with a braking system or systems capable of safely stopping and holding the locomotive or train under operating conditions.

[Reg. 18.5.3.1 inserted by GN R802 of 1998.]

**18.5.3.2** The engineer or the person appointed in terms of regulation 2.13.2 must ensure that the braking systems used for the purposes of regulation 18.5.3.1 are designed, operated, maintained and tested in accordance with an appropriate safety standard.

[Reg. 18.5.3.2 inserted by GN R802 of 1998.]

**18.5.4 ...**

[18.5.4 inserted by GN R1885 of 1980 and deleted by GenN 160 of 1991.]

[Reg. 18.5 substituted by GN R1885 of 12 September 1980 and by GenN 160 of 1 February 1991.]

**18.6.1 and 18.6.2 ...**

[Reg. 18.6.1 and 18.6.2 repealed by GN R583 of 2004.]

**18.6.3 ...**

[Reg. 18.6 substituted by GN R1885 of 1980 and by GN 160 of 1996 and repealed by GN R1237 of 2003.]

**18.7.1 and 18.7.2 ...**

[Regs. 18.7.1 and 18.7.2 repealed by GN R1237 of 2003 and by GN R583 of 2004.]

**18.8.1** On any rail track where any vehicle is attached to a rope operated by a winch or haulage engine there shall be provided, used and maintained in sound working order effective signalling arrangements whereby distinct signals can be given to the driver of the winch or haulage engine from all places where vehicles are attached or detached from the rope, and from any other place along the rail track where the giving of such signals is necessary for the safe and efficient conduct of tramming operations.

**18.8.2** Where traction is operated by gravity and the inclined plane exceeds 50 metres in length, some effective means of communicating distinct signals between the stopping places shall be provided.

**18.8.3 ...**

[Reg. 18.8.3 repealed by GN R583 of 14 May 2004.]

**18.8.4.1 ...**

[Reg. 18.8.4.1 repealed by GN R583 of 14 May 2004.]

**18.8.4.2** Any device referred to in regulation 18.8.4.1 shall, where possible, be designed in such a manner that it will reset automatically.

**18.8.4.3** If the device referred to in regulation 18.8.4.1 is operated manually the person operating the device shall be-

- (a) afforded adequate protection from any moving vehicle;
- (b) appointed by the manager or person authorised by him to make such appointments.

**18.8.5 and 18.8.6 ...**

[Regs. 18.8.5 and 18.8.6 repealed by GN R583 of 14 May 2004.]

**18.8.7.1 ...**

[Reg. 18.8.7.1 amended by GN R94 of 15 January 1997 and repealed by GN R583 of 14 May 2004.]

**18.8.7.2 and 18.8.7.3 ...**

[Regs. 18.8.7.2 and 18.8.7.3 repealed by GN R583 of 14 May 2004.]

## **CHAPTER 19**

### **SCRAPER-WINCH INSTALLATIONS**

#### **19.1 ...**

[Reg. 19.1 amended by GN R1352 of 8 July 1988 and repealed by GN R1225 of 15 December 2005.]

#### **19.2.1 and 19.2.2 ...**

[Regs. 19.2.1 and 19.2.2 substituted by GN 160 of 1991 and repealed by GN R1225 of 2005.]

#### **19.3.1 to 19.3.3 inclusive.....**

[Regs. 19.3.1 to 19.3.3 inclusive repealed by GN R1225 of 15 December 2005.]

#### **19.3.4 ...**

[Reg. 19.3.4 substituted by GN 160 of 1 February 1991 and repealed by GN R1225 of 2005.]

#### **19.4 ...**

[Reg. 19.4 repealed by GN R1225 of 15 December 2005.]

#### **19.5 ...**

[Reg. 19.5 substituted by GN 160 of 1 February 1991 and repealed by GN R1225 of 2005.]

#### **19.6 ...**

[Reg. 19.6 added by GN 160 of 1 February 1991 and repealed by GN R1225 of 2005.]

## **CHAPTER 20**

### **MACHINERY: SPECIAL SAFETY MEASURES**

**20.1.1** The operation of and attendance on machinery shall be in charge of a competent shiftman, but unskilled persons working under his direction may be employed on such operation or attendance provided that the shiftman exercises effective control.

[Reg. 20.1.1 amended by GN R1352 of 8 July 1988.]

**20.1.2** No person having charge of any machinery which, for the safety of life or limb, requires constant supervision shall for any reason absent himself or cease to have continual supervision of such machinery during the periods for which he is in charge unless he be replaced by a competent person, nor shall any person in charge of such machinery be caused or allowed to work more than 10 hours during any continuous period of 24 hours: Provided that this limit may be exceeded where ordered by the manager or other person in authority in cases of emergency or where written permission thereto has been granted by the Principal Inspector of Mines.

[Reg. 20.1.2 amended by GN R94 of 15 January 1997.]

**20.2** No *employee*, unless his duty absolutely necessitates it, shall trespass within the safety guards or fences erected under these Regulations. In case he notices anything which might be dangerous to life or limb, or to the working of machinery, he shall as soon as possible inform the person in charge.

**20.3.1** Every dangerous place such as an elevated platform, pit or traphole, shall be fenced off so as effectively to safeguard any person authorised to work there or be in the vicinity.

**20.3.2** No person shall without authority enter any place where machinery is erected.

**20.4** No person engaged in close proximity to moving machinery shall wear or be permitted to wear loose outer clothing.

**20.5** All exposed machinery which, when in motion, may be dangerous to any person shall be securely fenced off. Efficient guards shall be provided to such parts of any machinery as may be a source of danger to any person.

**20.6** The repairing, adjusting, testing, examining, cleaning or lubricating of machinery in motion shall not be undertaken by any person other than a competent person where there is a risk of personal injury and then only when it is impracticable to stop such machinery. Automatic devices for oiling machinery shall be provided wherever possible.

[Reg. 20.6 amended by GN 160 of 1 February 1991.]

**20.7.1** Belt-driven machinery, which it is necessary to stop and start without interfering with the speed of the prime mover, shall be permanently fitted with a satisfactory mechanical appliance for the purpose.

**20.7.2** No person shall ship or unship any driving belt while the machinery is in motion, with the exception of customary shifting of light belts on the coned pulleys of machine tools for the purpose of alteration in the working speed.

**20.7.3** No person shall set a machine or machinery in motion unless he has taken all reasonable precautions to ensure that no other person can be injured by the setting in motion thereof.

[Reg. 20.7.3 inserted by GN R2703 of 11 December 1981.]

**20.8** Every reasonable precaution shall be taken in connection with the use of machinery to ensure that the safety of every person employed on or about such machinery is not endangered.

**20.9.1** Every safety appliance at a mine or works shall be maintained in good working order and properly used.

**20.9.2** The using of any apparatus or of any machinery which does not comply with the provisions of these Regulations, or the working of any apparatus or of any machinery the using of which appears in any way to be or to have become dangerous, shall immediately be stopped. Until such time as such apparatus or machinery complies with the requirements of these Regulations, or such dangerous condition has been rectified, such apparatus or machinery shall not be used.

[Reg. 20.9.2 substituted by GN R2703 of 11 December 1981.]

**20.9.3.1** Subject to regulation 20.6 the person in immediate charge of any work on or repairs to machinery shall ensure that the power supply to such machinery is switched off and locked out or disconnected in accordance with a code of practice drawn up in writing by the engineer or competent person appointed in terms of regulation 2.13.2, and that the power supply remains disconnected or switched off until the work or repairs have been completed.

[Reg. 20.9.3.1 substituted by GN R1885 of 1980 and amended by GN 160 of 1991.]

**20.9.3.2** No person shall conduct maintenance or repair work, and no person shall cause or permit such work to be done, until all reasonable precautions have been taken to ensure that the work can be done safely. A machine or part of a machine which may fall on the person conducting such work or on any other person shall be adequately supported.

[Reg. 20.9.3.2 substituted by GN R1885 of 1980.]

**20.10** No apparatus, component or machinery made of a light metal shall be used in a hazardous area unless such apparatus, component or machinery is-

- (a) protected by means of a housing, sheath cover or coating (excluding painting); or
- (b) contained, situated or used, in such a manner that no dangerous condition can result therefrom.

[Reg. 20.10 added by GN 160 of 1 February 1991 and amended by GN R814 of 13 March 1992.]

## **CHAPTER 21 .....**

[Chapter 21 amended by GN R303 of 1 March 1972, substituted by GN 160 of 1 February 1991, amended by GN R3083 of 20 December 1991, by GN R814 of 13 March 1992, by GN R94 of 15 January 1997 and by GN R1237 of 29 August 2003 and repealed by GN R331 of 24 April 2015 and by GN R895 of 25 August 2017.]

## **CHAPTER 22**

### **BOILERS**

**22.1.1** No boiler shall be used unless a prescribed permit for its use has been issued by the Principal Inspector of Mines.

[Reg. 22.1.1 deleted by GN R3083 of 1991 and inserted by GN R2449 of 1993 and by GN R94 of 1997.]

**22.1.2** Boilers which have been out of use for 12 months shall not be used again before permission is obtained from the Principal Inspector of Mines.

[Reg. 22.1.2 amended by GN R94 of 15 January 1997.]

**22.2** No boiler shall be used unless-

**22.2.1** it is constructed in accordance with a code of practice approved by the *Chief Inspector*, or, where an approved code does not exist for any particular boiler, the construction of the boiler is approved by the *Chief Inspector*;

[Reg. 22.2.1 amended by GN R94 of 15 January 1997.]

**22.2.2** it has been manufactured under the supervision of an inspecting authority approved by the *Chief Inspector*;

[Reg. 22.2.2 amended by GN R94 of 15 January 1997.]

**22.2.3** it complies with the provisions of these Regulations; and

**22.2.4** it is maintained in a safe working condition at all times.

**22.3.1** The manager of a mine or works who intends to erect and use a boiler shall apply in writing to the Principal Inspector of Mines on the form obtainable from him.

[Reg. 22.3.1 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997.]

**22.3.2** For every new boiler the application shall be accompanied by-

- (a) the manufacturer's complete specification on the form for this purpose;
- (b) legible, dimensioned drawings of the complete boiler showing details of the plating, riveting and welding;
- (c) drawings showing the boiler house, if any, in plan and elevation and the position of the boiler; and
- (d) a certificate issued by an inspecting authority incorporating the following information:
  - (i). that the authority is satisfied that the boiler is constructed in accordance with the specified code;
  - (ii). results of the physical and chemical tests carried out on the material used in construction;
  - (iii). details of the heat treatment; and
  - (iv). details of the hydraulic test, witnessed by the inspecting authority.

**22.4.1** On receipt of the application to erect or use a boiler, the Principal Inspector of Mines-

- (a) may issue a provisional permit subject to the conditions and for the period he may determine; or
- (b) if he is satisfied as a result of inspection and hydraulic test that the boiler is safe to use and that the provisions of these Regulations have been complied with, may issue a permit subject to the conditions he may specify.

[Reg. 22.4.1 amended by GN R94 of 15 January 1997.]

**22.4.2 ...**

[Reg. 22.4.2 deleted by GN R814 of 13 March 1992.]

**22.4.3** The permit issued in terms of regulation 22.4.1 shall cease to be valid on transfer of ownership of a boiler or in the case of a stationary boiler when the boiler is moved from the existing site.

**22.5.1** The Principal Inspector of Mines shall provide the manager with a boiler inspection register for each boiler in which the regional mining engineer (mining equipment) shall record the result of each of his inspections and hydraulic tests.

[Reg. 22.5.1 amended by GN R1189 of 8 June 1979 and by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**22.5.2** The manager shall keep the register in a safe place at the mine or works.

**22.5.3** If any register is lost, defaced or destroyed, or if the permit contained in the register is defaced or destroyed, the manager shall apply in writing to the Principal Inspector of Mines for the issue of a duplicate register and permit. The application shall have affixed to it uncancelled revenue stamps to the value of R2.

[Reg. 22.5.3 amended by GN R1189 of 1979 and by GN R814 of 1992 and by GN R94 of 1997.]

**22.5.4** The manager of a mine or works shall provide a log book for each boiler in which shall be entered without delay the dates on which such boiler was cleaned, examined or tested and the condition of the boiler at this examination or test, together with a full report of any alterations or repairs carried out at any time. Each entry in the book shall be made and signed by the person who conducted the examination or test or who performed the alterations or repair and shall be countersigned by the engineer or competent person in charge of machinery, if such entry was not made by him.

[Reg. 22.5.4 amended by GN R2703 of 11 December 1981.]

**22.5.5** If the manager of a mine or works disposes of a boiler or ceases permanently to use a boiler, he shall immediately return the Boiler Inspection Register containing the permit and the log book referred to in regulation 22.5.4 to the Principal Inspector of Mines.

[Reg. 22.5.5 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997.]

**22.6.1** Every new boiler shall have stamped on the shell the name of the manufacturer, the factory number, the year of manufacture and the intended maximum working gauge pressure in terms of pascals.

[Reg. 22.6.1 amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974]

**22.6.2** Every boiler shall be provided with a soft copper plate, 100 millimetres by 60 millimetres in size by three millimetres thick, which shall be fixed by means of four copper rivets, 10 millimetres in diameter, to the front of the boiler shell and in a position so that it can be readily seen at all times. The rivet holes in this plate shall be countersunk so that the rivet heads are flush with the copper plate. The Principal Inspector of Mines shall stamp on this plate in a clear manner the official number, the year when the boiler was first inspected and the authorised working gauge pressure.

The copper rivet heads shall be stamped by the Principal Inspector of Mines with the official stamp. The copper plate shall not be removed and the record stamped thereon shall not be defaced or altered except by the regional mining engineer.

[Reg. 22.6.2 amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997.]

**22.7.1** Every boiler shall be erected so as to facilitate access to all chambers, flues, inspection openings and fittings and a clear space of not less than one metre to the nearest wall or structure shall be left around it. This space may be reduced by not more than 150 millimetres by lagging or encasement.

[Reg. 22.7.1 amended by GN R303 of 1 March 1972.]

**22.7.2** The provisions of one metre clearance required in regulation 22.7.1 shall not apply to a boiler where masonry constitutes an integral part of the boiler.

[Reg. 22.7.2 amended by GN R303 of 1 March 1972.]

**22.7.3** The highest point of any fitting on top of every boiler shall be at a distance of not less than one metre from the ceiling or the underside of the lowest portion of the roof structure.

[Reg. 22.7.3 amended by GN R303 of 1 March 1972.]

**22.7.4** Access to every boiler shall be unobstructed.

**22.7.5** No stationary boiler shall be used in a position other than that in which it was situated when the permit was issued.

**22.7.6** The manager shall notify the Principal Inspector of Mines in writing if he intends moving a stationary boiler.

[Reg. 22.7.6 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997.]

**22.8.1** The Principal Inspector of Mines shall inspect and test every boiler before it is commissioned after it has been installed for the first time or any subsequent time, or after it has been out of commission for more than one year, or after major repairs have been effected to it, and he may carry out periodic inspections and tests on any boiler: Provided that whenever the Principal Inspector of Mines intends inspecting or testing a boiler he shall notify the manager of the date and time of the intended inspection or test.

[Reg. 22.8.1 amended by GN R2703 of 11 December 1981 and by GN R94 of 15 January 1997.]

**22.8.2** The manager shall upon receipt of such notification cause all parts of the boiler to be thoroughly cleaned and prepared for inspection and test in accordance with the instructions.

**22.8.3** When the inspection or test of a boiler cannot be properly executed, the whole or parts of the masonry or casing shall be removed when required by the Principal Inspector of Mines.

[Reg. 22.8.3 amended by GN R94 of 15 January 1997.]

**22.8.4** No boiler shall be encased by masonry or other material before it has been inspected or tested by the Principal Inspector of Mines, except with his written permission.

[Reg. 22.8.4 amended by GN R94 of 15 January 1997.]

**22.8.5** Whenever the masonry or casing of any boiler in use has been removed either for the purpose of renewal or for repairs to the boiler, and the stoppage of work occasioned thereby provides sufficient time for an external inspection or hydraulic test of the boiler, the masonry or casing shall not be replaced without the written permission of the Principal Inspector of Mines.

[Reg. 22.8.5 amended by GN R94 of 15 January 1997.]

**22.8.6** When any boiler is being emptied and opened for cleaning, repairs or for any other purpose, every precaution shall be taken to ensure the safety of every person employed on this work or who may be in the vicinity.

**22.8.7** No person shall be permitted to enter any boiler or flue unless the person in charge has satisfied himself that it is safe to do so and that every steam-stop, feed, blow-off and every other valve or cock which may be a source of danger is blanked off.

If any valve or cock cannot be blanked off it shall be closed and fastened securely by means of chain and lock.

While the boiler is being cleaned or repaired, no person shall interfere with or open any valve or cock which has been fastened and locked.

**22.8.8** Where a portable electric lamp is used during cleaning, repair or inspection of any boiler, the operating voltage of such lamp shall not exceed 32 volts.

**22.8.9** No water shall be used on hot flue dust or ash where danger may arise therefrom.

**22.8.10** The hydraulic test pressure-

(a) for a boiler having an authorised working gauge pressure not exceeding 500 kilopascals shall be double the authorised working gauge pressure; and

[Para. (a) amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974.]

(b) for a boiler having an authorised working gauge pressure exceeding 500 kilopascals shall be  $1\frac{1}{5}$  times the authorised working gauge pressure plus 400 kilopascals.

[Para. (b) amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974.]

**22.8.11** When the hydraulic test is performed in the presence of the Principal Inspector of Mines it shall be regarded as satisfactory if the boiler has withstood the test pressure to his satisfaction.

[Reg. 22.8.11 amended by GN R2703 of 11 December 1981 and by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**22.8.12** The manager shall place, free of charge, at the disposal of the Principal Inspector of Mines, workmen, tools and any other equipment which may be required to the purpose of carrying out the inspection or test.

[Reg. 22.8.12 amended by GN R94 of 15 January 1997.]

**22.8.13** Any manager who fails without good reason to have any boiler prepared for inspection or test on the date and at the time notified or who fails to provide the necessary facilities for the inspection or test shall be guilty of an offence. The manager shall then apply in writing to the Principal Inspector of Mines within seven days of the date on which the inspection or test should have taken place for a new date to be specified for the inspection or test and shall affix uncancelled revenue stamps to the value of R10 to his application.

[Reg. 22.8.13 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997.]

**22.8.14.1** Every boiler under the charge of a person in terms of regulation 2.13.1, 2.13.2 or 2.13.3 shall be inspected and tested by him at least once in each year, at intervals not exceeding 15 months: Provided that the Principal Inspector of Mines may require more frequent inspections and tests, or may extend the period of such intervals on written application by the manager.

[Reg. 22.8.14.1 inserted by GN R2703 of 11 December 1981 and amended by GN R94 of 15 January 1997.]

**22.8.14.2** The inspection shall consist of a careful examination of the external and internal surfaces of the boiler and of all the fittings and appurtenances.

[Reg. 22.8.14.2 inserted by GN R2703 of 11 December 1981.]

**22.8.14.3** The test shall consist of a pressure test by water to the pressure prescribed in regulation 22.8.10.

[Reg. 22.8.14.3 inserted by GN R2703 of 11 December 1981.]

**22.9.1** The authorised working gauge pressure of a boiler shall be that determined by the Principal Inspector of Mines and the boiler shall not be operated at a higher pressure.

[Reg. 22.9.1 amended by GN R94 of 15 January 1997.]

**22.9.2** When it appears from an inspection or test that a boiler can no longer be operated with safety at the authorised working gauge pressure, the Principal Inspector of Mines may fix a new authorised pressure at which the boiler may continue to be operated and he shall mark the new pressure on the copper plate provided for this purpose and the boiler shall not be operated at a higher pressure.

[Reg. 22.9.2 amended by GN R94 of 15 January 1997]

**22.9.3** When at an inspection any boiler is found to be in a condition from which holds immediate danger, the Principal Inspector of Mines shall order the operation of the boiler to be suspended and the boiler shall not be used until repairs have been carried out to his satisfaction.

[Reg. 22.9.3 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997.]

**22.10.1** The manager shall notify the Principal Inspector of Mines in writing when-

- (a) he acquires a boiler;
- (b) a boiler is damaged;
- (c) he proposes effecting important repairs to a boiler, such as general retubing, renewal of any furnace or flue, fixing of any new plate or patch and changing of any stay and he shall furnish details and drawings that may be necessary of any proposed change;
- (d) he ceases permanently to use a boiler; and
- (e) he transfers ownership of a boiler and shall give the name and address of the new owner.

[Reg. 22.10.1 amended by GN R1189 of 8 June 1979 and by GN R94 of 15 January 1997.]

**22.10.2** No person shall effect any important repair to any boiler without the prior approval of the Principal Inspector of Mines.

[Reg. 22.10.2 amended by GN R94 of 15 January 1997.]

**22.10.3** The person appointed in terms of regulation 2.13.1, 2.13.2 or 2.13.3 shall notify the Principal Inspector of Mines, at least seven days in advance, of the date and time he intends to perform the inspection and test prescribed in regulation 22.8.14.1.

[Reg. 22.10.3 inserted by GN R2703 of 11 December 1981 and amended by GN R94 of 15 January 1997.]

**22.11.1** The lowest level of the liquid for any stationary boiler shall be at least 75 millimetres above the highest part of the flues passing round or through the boiler, and for any portable boiler and any boiler of a locomotive or locomobile such level shall be of sufficient height above the fire line that even with the oscillation of the boiler the highest part of the surface reached by the fire and heated gases remains covered by liquid.

[Reg. 22.11.1 amended by GN R303 of 1 March 1972.]

**22.11.2** Where it is impossible for the plating to become overheated, the Principal Inspector of Mines may approve of portions of the steam, vapour or gas space of a boiler being overlapped by the flues.

[Reg. 22.11.2 amended by GN R94 of 15 January 1997.]

**22.11.3.1** Subject to the provisions of regulations 22.11.3.4 and 22.11.3.8, every boiler shall be fitted with at least two glass liquid level gauges, with proper blow-through cocks or valves, for ascertaining the true level of the liquid in the boiler. Where any liquid-gauge cock or valve is not directly attached to the shell of the boiler but to a stand pipe or column, a cock or valve shall be fitted between the boiler and the stand pipe or column if the connecting pipe is of a diameter less than 50 millimetres or if it is longer than one metre: Provided that the Principal Inspector of Mines may approve of any other reliable means of ascertaining the level of liquid in the boiler.

[Reg. 22.11.3.1 amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997.]

**22.11.3.2** Any connecting pipe between the boiler and the stand pipe or column may be of a diameter less than 50 millimetres in any part or may be longer than one metre and may be attached to the boiler without the intervention of a cock or valve, provided that the arrangement is otherwise satisfactory and provided further that there is no difficulty in keeping the passage clear and in ascertaining that it is clear. For the latter purpose, the passage in the part of the stand pipe or column between the top and bottom gauge-glass cocks shall be cut off or closed which may be done permanently or by the intervention of a cock in this part.

[Reg. 22.11.3.2 amended by GN R303 of 1 March 1972.]

**22.11.3.3** Every blow-through cock or valve shall be provided with a tail pipe arranged to discharge so that the safety of any person will not be endangered.

**22.11.3.4** One liquid level gauge shall be sufficient for any boiler with a total capacity of less than 100 litres.

[Reg. 22.11.3.4 amended by GN R303 of 1 March 1972.]

**22.11.3.5** The fixed liquid level shall be indicated by a conspicuous mark on the liquid level gauge as well as on the boiler shell or masonry.

**22.11.3.6** Every liquid level gauge of the tubular-glass type shall be provided with an efficient guard which shall not obstruct the reading of the gauge.

**22.11.3.7** Every liquid level gauge shall be situated and illuminated so that the level of the liquid in the boiler can be readily observed from the operating floor of the boiler at all times.

**22.11.3.8** Notwithstanding the provisions of regulation 22.11.3.1 or 22.11.3.4, a liquid level gauge is not required on any fuel or electrically heated boiler where at least two independent means are provided for automatically isolating the source of heat should there be a deficiency of liquid.

[Reg. 22.11.3.8 amended by GN R2703 of 11 December 1981.]

**22.12.1** Each boiler which has a total capacity of 100 litres or more shall be provided with at least two reliable apparatuses, each of which shall be capable of adequately supplying the liquid feed requirement of the boiler under all operating conditions, provided that where more than two feeding apparatuses are provided, such feeding apparatuses shall be of sufficient size in the aggregate to supply all the feed requirements should any one such feeding apparatus fail to operate. One of these feeding apparatuses shall be either a power pump or an injector. These feeding apparatuses shall be independent of each other, except that when a separate feed discharge stop valve is fitted to each pump or injector one feed pipe shall be considered to be sufficient. Two or more boilers combined for joint working shall be considered to be one for the purpose of this regulation.

[Reg. 22.12.1 amended by GN R303 of 1 March 1972.]

**22.12.2** Where the feeding apparatus consists of a steam driven pump, the steam supply to the pump shall be by means of a separate supply pipe from the boiler. Every such steam supply pipe shall be provided with a stop valve as close as practicable to the boiler. Where the source of steam supply to the feeding apparatus can be from more than one boiler, a non-return valve shall be placed adjacent to the stop valve and between the stop valve and the feeding apparatus.

**22.12.3.1** Every boiler with a total capacity of less than 100 litre shall be provided with at least one feeding apparatus.

[Reg. 22.12.3.1 amended by GN R303 of 1 March 1972.]

**22.12.3.2** One feed pump shall be considered sufficient for any oil, gas or electrically heated boiler where a means is provided for automatically isolating the source of heat should there be a deficiency of liquid.

**22.12.3.3** In any boiler in which the product of the authorised working gauge pressure in kilopascals and the evaporative capacity in kilograms per hour, does not exceed 125 000, one feeding apparatus may consist of a hand operated pump, provided that it is of adequate capacity to supply the boiler with liquid.

[Reg. 22.12.3.3 amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974.]

**22.12.4** The provisions of regulations 22.12.1, 22.12.2 and 22.12.3 shall not apply to a separately-fired superheater.

**22.12.5** The point where the delivery feed pipe enters the boiler shall be provided with a self-acting non-return valve and a stop cock or a wheel valve. The stop cock or wheel valve shall be placed between the non-return valve and the boiler. Where the feed delivery pipes are duplicated and provided with inter-connecting valve arrangement, the Principal Inspector of Mines may permit the use of a combined stop and non-return valve on each feed pipe.

[Reg. 22.12.5 amended by GN R94 of 15 January 1997.]

**22.13** Where the feed supply to any boiler is through an economizer which is not an integral part of the boiler-

- (a) the economizer flue shall be fitted with a damper and a by-pass flue; and
- (b) an alternative direct feed from the feeding apparatus shall be provided to the boiler.

**22.14.1** Every boiler, other than an economizer and a separately-fired superheater, shall be provided with a contrivance by which the deficiency of liquid is made known automatically and independently of any personal observation. The contrivance may be either a whistle operated by a float or other means, or any other contrivance approved by the Principal Inspector of Mines.

[Reg. 22.14.1 amended by GN R94 of 15 January 1997.]

**22.14.2** Notwithstanding the provisions of regulation 22.14.1, every fuel or electrically heated boiler shall either have a low liquid alarm other than a fusible plug or be provided with a means for automatically isolating the source of heat should there be a deficiency of liquid.

[Reg. 22.14.2 amended by GN R2703 of 11 December 1981.]

**22.15.1** Subject to the provisions of regulation 22.15.4, every boiler shall be provided with at least two reliable safety valves. Each valve shall be loaded so that it will open at or below the authorised working gauge pressure. The aggregate area of the opening of the valves for the discharge of steam, vapour or gas shall be sufficient to prevent the pressure rising in excess of 10 per cent above the authorised working gauge pressure, should any one of the safety valves fail to open.

**22.15.2** Every safety valve shall be attached as close as possible to the main steam, vapour or gas space of the boiler without any intervening stop valve.

**22.15.3** At least one of the safety valves shall be locked and shall be accessible only to the person in control. The locked valve or valves shall have an area not less than and shall open at a pressure not greater than any valve not locked.

**22.15.4** One safety valve, which shall be locked and which shall be accessible only to the person in control, shall be sufficient-

(a) for any boiler with a total capacity of less than 100 litres;

[Para. (a) amended by GN R303 of 1 March 1972.]

- (b) for an economizer and any separately-fired superheater which can be shut off from the boiler; and
- (c) for any oil, gas or electrically heated boiler where a means is provided for automatically isolating the source of heat should the pressure rise above that at which the safety valve is loaded to open.

**22.15.3** No undue weight shall be placed on a safety valve of any boiler nor shall the load on any safety valve be increased in a way which will prevent the safety valve opening at the authorised working gauge pressure.

**22.15.4** One safety valve, which shall be locked and which shall be accessible only to the person in control, shall be sufficient-

- (a) for any boiler with a total capacity of less than 100 litres;
- (b) for any economizer and any separately-fired superheater which can be shut off from the boiler; and
- (c) for any oil, gas or electrically heated boiler where a means is provided for automatically isolating the source of heat should the pressure rise above that at which the safety valve is loaded to open.

**22.15.5** No undue weight shall be placed on a safety valve of any boiler nor shall the load on any safety valve be increased in a way which will prevent the safety valve opening at the authorised working gauge pressure.

**22.16.1** Every safety valve shall be constructed so that the valve can be freed easily from its seat at any time and provision shall be made to prevent the valve from flying off should the spring or lever break or should the load on the valve be removed suddenly by accident or other cause.

**22.16.2** Every safety valve loaded by a weight or spring acting on a lever shall be constructed so that the load acts only upon the extreme end of the lever and such load shall be secured to the lever. Where a safety valve is loaded directly by a spring, every compression adjusting screw shall abut against a metal stop or washer when the spring is at the working-load compression.

**22.17.1** Every boiler shall be provided with a main stop valve at the discharge outlet and as close as practicable to the boiler.

**22.17.2** If more than one boiler is connected to a common main, a self-acting non-return valve shall be placed between each boiler and the common main.

**22.17.3** Steam, vapour or gas required for any purpose other than for the operation of the boiler auxiliary apparatus shall be drawn only through the main stop valve.

**22.18** Every safety valve and every valve at any discharge outlet, its component parts and its connection to the boiler shall be constructed of a metal approved by the Principal Inspector of Mines: Provided that cast iron shall not be approved for any such valve, its component parts and its connection to a boiler which has an authorised working gauge pressure exceeding 1 megapascal.

[Reg. 22.18 amended by GN R303 of 1 March 1972, by GN R2102 of 15 November 1974 and by GN R94 of 15 January 1997]

**22.19.1** Every boiler shall be provided with at least one blow-off cock or valve connected by a flange direct or by means of a flanged pipe to its lowest point.

**22.19.2** Every blow-off cock or valve, its component parts and its connection to the boiler shall be constructed of a metal, other than cast iron, approved by the Principal Inspector of Mines.

[Reg. 22.19.2 amended by GN R94 of 15 January 1997.]

**22.19.3** Where any connecting pipe is fitted between the blow-off cock or valve and the boiler, the pipe shall not be in contact with any masonry; it shall be joined by flanges, and, if the flange is not solid with the pipe or welded to the pipe, the pipe shall pass through the flange and be riveted over on the inside in addition to any other connection between the flange and the pipe, such as screw threads or rivets; where the authorised working gauge pressure is in excess of 3 megapascals, every flange shall be welded on and the welding shall be stress-relieved.

[Reg. 22.19.3 amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974.]

**22.19.4** Every key for operating a blow-off cock or valve shall be removed when the blow-off cock or valve is fully closed.

**22.19.5** The discharge from blow-off cocks or valves of two or more boilers shall not lead into a common pipe except with the written permission of the Principal Inspector of Mines.

[Reg. 22.19.5 amended by GN R94 of 15 January 1997.]

**22.19.6** The discharge from every blow-off cock or valve shall be conducted by means of a pipe into an open or suitably vented tank, drain or sump which is situated and guarded so as to prevent danger to any person. The blow-down pipe shall be graded so that the liquid will flow freely to the tank.

**22.20.1** Every boiler shall be provided with at least one reliable pressure gauge which shall be connected to that part of the boiler where the highest vapour pressure occurs. The dial of the gauge shall be graduated to show pressure in terms of pascals and the maximum pressure which the gauge shall be capable of registering shall not be less than the hydraulic test pressure as defined in regulation 22.8.10 and not more than double the authorised working gauge pressure. The authorised working gauge pressure shall be clearly marked with a red line on the dial of the gauge. The gauge shall be situated and the dial illuminated so that the working pressure can be read distinctly from the operating floor of the boiler at all times.

[Reg. 22.20.1 amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974.]

**22.20.2** Every pressure gauge shall have a separate direct connection with the boiler. Where a pressure gauge is attached to the shell or drum of the boiler the connection shall be by means of a U-pipe or equivalent device of sufficient capacity to keep the gauge tube filled with liquid. The pressure gauge shall be capable of being shut off from the boiler and the cock or valve used for this purpose shall be in full view.

**22.21.1** Where the authorised working gauge pressure of any boiler is 2,8 megapascals or less there shall be provided a contrivance consisting of a cock with a flange 40 millimetres in diameter by five millimetres thick for the attachment of the test pressure gauge of the Principal Inspector of Mines.

[Reg. 22.21.1 amended by GN R303 of 1 March 1972, by GN R2102 of 15 November 1974 and by GN R94 of 15 January 1997.]

**22.21.2** Where the authorised working pressure of any boiler is in excess of 2,8 megapascals there shall be provided a contrivance consisting of a valve or cock carrying in a vertical position a receiving socket for the attachment of the test pressure gauge of the Principal Inspector of Mines. The receiving socket shall be tapped with a 10 millimetre B.S. thread and shall be fitted with an easily removable screw plug.

[Reg. 22.21.2 amended by GN R303 of 1972, by GN R2102 of 1974 and by GN R94 of 1997.]

**22.21.3** The contrivances required in terms of regulations 22.21.1 and 22.21.2 shall be situated so that the test gauge and the boiler gauge can be read from the same place.

**22.22.1** Every boiler shall be provided where necessary with sufficient and suitable inspection openings situated so that all the internal surfaces and seams may be readily cleaned and inspected: Provided that the Principal Inspector of Mines shall determine whether the number and size of inspection openings are sufficient.

[Reg. 22.22.1 amended by GN R94 of 15 January 1997.]

**22.22.2** Every boiler where the dimensions permit entry shall be provided with at least one manhole of not less than 400 millimetres by 300 millimetres for an elliptical hole and not less than 400 millimetres in diameter for a circular hole, provided that where a boiler is fitted with a removable end or cover plate which is of sufficient size to permit entry, the boiler shall be deemed to comply with the provisions of this regulation.

[Reg. 22.22.2 amended by GN R303 of 1 March 1972.]

## CHAPTER 23

### PRESSURE VESSELS, COMPRESSORS AND REFRIGERATION PLANTS

**23.1** Every pressure vessel-

**23.1.1** shall be constructed in accordance with a code of practice approved by the *Chief Inspector*, or where no approved code exists for any particular vessel, its construction shall be approved by the Principal Inspector of Mines;

[Reg. 23.1.1 amended by GN R94 of 15 January 1997.]

**23.1.2** shall be manufactured under the supervision of an inspecting authority approved by the *Chief Inspector*,

[Reg. 23.1.2 amended by GN R94 of 15 January 1997.]

**23.1.3** shall be kept clean and free from-

- (a) carbonized oil or other flammable material which may ignite under working conditions; or
- (b) material which may cause corrosion; or
- (c) material which is liable to chemical reaction which may cause an uncontrolled rise in pressure; and

**23.1.4** shall be maintained in a safe working condition at all times.

**23.2.1** The manager of a mine or works at which a pressure vessel is used shall have in his possession a certificate, or a copy thereof, issued by the inspecting authority referred to in regulation 23.1.2 in which the code to which the vessel was manufactured is certified.

**23.3** Every pressure vessel shall have a plate, securely fixed to it in a conspicuous place on the shell, bearing the following particulars-

- (a) name of manufacturer;
- (b) country of origin;
- (c) maker's number;
- (d) year of manufacture;
- (e) maximum safe working gauge pressure in terms of pascals;

[Para. (e) amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974.]

- (f) capacity in cubic metres; and

[Para. (f) amended by GN R303 of 1 March 1972.]

- (g) number of the code of manufacture.

**23.4** The manager shall keep a record for each pressure vessel on which shall be entered the dates on which such vessel was cleaned, examined, repaired and tested. This record shall be signed by the person in charge of such cleaning, examination, repair or test.

[Reg. 23.4 amended by GN R2101 of 15 November 1974.]

**23.5.1** Every pressure vessel shall be provided with one or more suitable inspection openings, situated so that all internal surfaces and seams may be conveniently cleaned and inspected.

**23.5.2** Every pressure vessel where the dimensions are such as to permit of entry into the vessel, shall be provided with at least one manhole, which shall be not less than 400 millimetres by 300 millimetres for an elliptical hole and at least 400 millimetres in diameter for a circular hole: Provided that where there is no danger from internal corrosive action no manhole need be provided.

[Reg. 23.5.2 amended by GN R303 of 1 March 1972.]

**23.5.3** The Principal Inspector of Mines shall determine whether the number and size of the inspection openings are sufficient and he may require more inspection openings to be provided.

[Reg. 23.5.3 amended by GN R94 of 15 January 1997.]

**23.6.1** Every pressure vessel shall be provided with at least one reliable pressure gauge, the dial of which shall be graduated to show gauge pressure in terms of pascals and the maximum pressure which the gauge shall be capable of registering shall not be less than the hydraulic test pressure as defined in regulation 23.12.5 and not more than double the maximum safe working gauge pressure of the vessel: Provided that where two or more pressure vessels with the same maximum safe working gauge pressure are connected to a common supply main, one pressure gauge fitted directly to the supply main, situated so that its reading is easily visible from any of the pressure vessels, shall be sufficient.

[Reg. 23.6.1 amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974.]

**23.6.2** The maximum safe working gauge pressure of the vessel shall be marked with a red line on the dial of the pressure gauge.

**23.7.1** Every pressure vessel shall be provided with at least one safety valve which shall be-

- (a) kept locked, sealed or otherwise rendered inaccessible to any unauthorised person;
- (b) set to open at or before reaching the maximum safe working gauge pressure;
- (c) such as to prevent the pressure rising in excess of 10 per cent above the maximum safe working gauge pressure;
- (d) attached to the pressure vessel and which shall be incapable of being shut off therefrom, except where two or more pressure vessels with the same maximum safe working gauge pressure are connected to a common supply main, one safety valve fitted directly to the supply main, situated so that it is easily visible from any of the pressure vessels, shall be sufficient: Provided that where a pressure vessel is capable of being isolated from such common supply main, the Principal Inspector of Mines may require the fitting of a fusible plug or rupturing disc to such pressure vessel;

[Para. (d) amended by GN R94 of 15 January 1997.]

- (e) constructed of metal approved by the Principal Inspector of Mines, provided that cast iron shall not be used if the maximum safe working gauge pressure of the pressure vessel is in excess of 1 megapascal; and

[Para. (e) amended by GN R303 of 1 March 1972, by GN R2102 of 15 November 1974 and by GN R94 of 15 January 1997.]

- (f) arranged to discharge by means of a pipe any dangerous or toxic gas, vapour or liquid so as not to endanger the safety of persons.

**23.7.2** Where the use of a safety valve in any particular process is impracticable due to its inability to operate under all working conditions, the Principal Inspector of Mines may require or permit the use of a rupturing disc subject to such conditions as he may prescribe.

[Reg. 23.7.2 amended by GN R94 of 15 January 1997.]

**23.7.3** Where the maximum safe working gauge pressure of any steam receiver cannot be exceeded, the Principal Inspector of Mines may exempt in writing such receiver from being fitted with a safety valve.

[Reg. 23.7.3 amended by GN R94 of 15 January 1997.]

**23.8** Every pressure vessel in which liquid may collect shall be provided with a suitable drain at the lowest part of the vessel. The discharge shall be controlled by a cock or valve and shall be led to a safe place.

**23.9.1** Every pressure vessel in which the level of the liquid in the vessel is material to safety shall be provided with a means for indicating at all times the actual level of the liquid.

**23.9.2** The level indicator shall be conspicuously marked, with corresponding marks on the shell of the vessel, to indicate the safe working level limits of the liquid in the vessels.

**23.9.3** Any indicator of the tubular-glass type shall be fitted with an efficient guard which shall not obscure the reading of the indicator and shall be constructed so as to prevent automatically the escape of any poisonous, explosive or flammable substance into the atmosphere should the glass break.

**23.10.1** Every pressure vessel which is fed from a supply, the pressure of which is higher than the safe working gauge pressure of such vessel, shall be provided with-

- (a) a pressure reducing valve to reduce the supply pressure to the maximum safe working gauge pressure of the vessel; and

- (b) a safety valve fitted adjacent to the low pressure side of the reducing valve and set to release at the maximum safe working gauge pressure of the vessel to prevent the pressure rising in excess of 10 per cent above the maximum safe working gauge pressure.

**23.10.2** Where two or more pressure vessels with the same working gauge pressure are connected to the same source of supply, one pressure reducing valve and one safety valve shall be sufficient.

**23.11** Every pressure vessel which is intended to operate under steam pressure and which is equipped for its operation with a removable or hinged door or cover shall be provided with an interlock or other effective means so as to prevent a rise in the pressure inside the vessel before the door or cover is in the fully closed or locked position and to prevent the release of the door or cover from the locked or closed position before the pressure inside the vessel has been reduced to atmospheric pressure.

**23.12.1** The person appointed in terms of regulation 2.13.1, 2.13.2 or 2.13.3 shall ensure that every pressure vessel is inspected and tested in accordance with the provisions of this regulation.

**23.12.2** Every pressure vessel in which the product of the designed working gauge pressure in kilopascals and the capacity in cubic metres exceeds 10 but does not exceed 30, shall be inspected and tested before it is used for the first time.

[Reg. 23.12.2 amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974.]

**23.12.3** Every pressure vessel in which the product of the designed working gauge pressure in kilopascals and the capacity in cubic metres exceeds 30, shall be—  
(a) inspected and tested before being commissioned after installation for the first time or any subsequent time, and after having been out of commission for more than two years or after major repairs;  
(b) inspected at regular intervals of not more than one year; and  
(c) tested at intervals of not more than two years: Provided that where any particular working condition exists the Principal Inspector of Mines may require more frequent inspections and tests to be carried out.

[Para. (c) amended by GN R94 of 15 January 1997.]

[Reg. 23.12.3 amended by GN R303 of 1 March 1972 and by GN R2102 of 15 November 1974.]

**23.12.4** The inspection shall consist of an examination of the internal and external surfaces of the vessel and of all the fittings and appurtenances.

**23.12.5** The test shall consist of a pressure test by water or, where the use of water is impracticable, by any other suitable liquid, to a pressure of 1,3 times the maximum safe working gauge pressure of the vessel.

[Reg. 23.12.5 amended by GN R303 of 1 March 1972.]

**23.12.6** Where the construction of the vessel is such as to preclude a thorough inspection of all the internal surfaces, such as vessel jackets, the internal inspection may be substituted by a pressure test.

**23.12.7** Where it is impracticable to use a liquid for the above-mentioned test, the Principal Inspector of Mines may permit a test with a non-flammable gas to a pressure 1,1 times the maximum safe working gauge pressure of the vessel: Provided that the test is preceded by an internal inspection and any conditions and precautionary measures he may prescribe are complied with.

[Reg. 23.12.7 amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997.]

**23.12.8** Notwithstanding anything to the contrary contained in this regulation, any cooking pot or similar jacketed vessel, irrespective of capacity, shall be inspected and tested as prescribed by regulation 23.12.3.

**23.13.1** When it appears from an examination or test that a pressure vessel can no longer be used with safety at the manufacturer's intended maximum working gauge pressure, the Principal Inspector of Mines may fix a new maximum working gauge pressure at which the vessel may continue to be used and he shall require the new pressure to be marked on the plate provided in terms of regulation 23.3 and no person shall require or permit such a vessel to be at a higher pressure.

[Reg. 23.13.1 amended by GN R94 of 15 January 1997.]

**23.13.2** When at any time a pressure vessel is found to be in a condition from which danger may arise, the use of the vessel shall be suspended immediately and it shall not again be used until repairs have been carried out.

**23.13.3** No person shall effect any important repair to any pressure vessel without the prior approval of the Principal Inspector of Mines.

[Reg. 23.13.3 inserted by GN R2703 of 1981 and amended by GN R94 of 1997.]

**23.14.1 and 23.14.2 ...**

[Regs. 23.14.1 and 23.14.2 repealed by GN R1578 of 2002.]

**23.14.3 ...**

[Reg. 23.14.3 amended by GN R303 of 1972 and by GN R2103 of 1974 and repealed by GN R1578 of 2002.]

**23.14.4 ...**

[Reg. 23.14.4 repealed by GN R1578 of 13 December 2002.]

**23.15.1 ...**

[Reg. 23.15.1 amended by GN R303 of 1972 and repealed by GN 911 of 2006.]

**23.15.2 to 23.15.7 inclusive ...**

[Regs 23.15.2 to 23.15.7 inclusive repealed by GN 911 of 2006.]

**23.15.8 ...**

[Reg. 22.15.8 amended by GN R94 of 15 January 1997 and repealed by GN 911 of 8 September 2006.]

**23.15.9 ...**

[Reg. 23.15.9 repealed by GN 911 of 8 September 2006.]

**23.15.10** At the entrance to the plant, other than a plant in which fluorinated hydrocarbons are used as the refrigerant, there shall be provided and kept readily accessible an adequate length of hose permanently connected to a water supply and two suitable gas masks which shall be examined at least once in every six months by a person appointed by the manager.

**23.15.11 ...**

[Reg. 23.15.11 amended by GN R1352 of 8 July 1988 and repealed by GN 911 of 8 September 2006.]

**23.15.12 ...**

[Reg. 23.15.12 amended by GN R303 of 1 March 1972 and repealed by GN 911 of 8 September 2006.]

**23.15.13 and 23.15.14 ...**

[Regs 23.15.13 and 23.15.14 repealed by GN 911 of 8 September 2006.]

**23.15.15 and 23.15.16 ...**

[Regs 23.15.15 and 23.15.16 amended by GN R305 of 1 March 1972 and repealed by GN 911 of 8 September 2006.]

## CHAPTER 24

### FIRST AID AND RESCUE BRIGADES

**24.1** First aid equipment in accordance with the following requirements shall be provided, maintained and be readily available for use on the surface at every mine and at every works-

**24.1.1** Where the number of persons employed on surface, including opencast workings, at any one time is 300 or less, there shall be kept in a readily accessible, clean and dry place a suitable stretcher, provided with two blankets, and a substantially constructed first aid box containing tourniquets, splints, bandages, individually-wrapped sterile dressings and antiseptic solution.

**24.1.2** Where the number of persons employed on surface, including opencast workings, at any one time exceeds 300, first aid rooms adequate in number shall be established at readily accessible places to serve the persons employed. Each first aid room shall be clearly marked as such, kept clean and equipped with at least two suitable stretchers, each provided with two blankets, and two first aid boxes equipped as detailed in regulation 24.1.1.

**24.2** First aid in accordance with the following requirements shall be provided, maintained and be readily available for use in the underground workings of every mine other than a coal mine-

**24.2.1** Where the number of persons employed underground at any one time is 50 or less, there shall be kept in a readily accessible, clean and dry place a suitable stretcher and a first aid box as detailed in regulation 24.1.1.

**24.2.2** Where the number of persons employed underground at any one time exceeds 50 but does not exceed 300, first aid rooms, clearly marked as such, shall be established at a conspicuous place underground and equipped and maintained as detailed in regulation 24.1.2: Provided that where a first aid room is established on surface a first aid room need not be established in the underground workings if at least one first aid box equipped as detailed in regulation 24.1.1 is kept in a readily accessible, clean and dry place underground for each 150 persons so employed.

**24.2.3** Where the number of persons employed underground at any one time exceeds 300, a first aid room shall be established at every main shaft, main winze or main adit in which persons regularly travel and in any case not more than 1 000 metres along the shortest travelling way from any place where ordinary mining operations, other than shaft sinking or main development, are being conducted. Each first aid room, clearly marked as such, shall be equipped and maintained as detailed in regulation 24.1.2. In each shift boss's section a first aid box equipped as detailed in regulation 24.1.1 shall be kept in a readily accessible, clean and dry place.

[Reg. 24.2.3 amended by GN R303 of 1 March 1972.]

**24.3** First aid equipment in accordance with the following requirements shall be provided, maintained and be readily available for use in the workings of every coal mine-

**24.3.1** Where the number of persons employed underground at any one time is 50 or less, there shall be kept in a readily accessible, clean and dry place a suitable stretcher provided with two blankets and a first aid box equipped as detailed in regulation 24.1.1.

**24.3.2** Where the number of persons employed underground at any one time exceeds 50 but does not exceed 300, a first aid room, clearly marked as such, shall be established at a conspicuous place and equipped and maintained as detailed in regulation 24.1.2 and there shall be kept in a readily accessible, clean and dry place in each working section a suitable stretcher provided with two blankets and a first aid box equipped as detailed in regulation 24.1.1.

**24.3.3** Where the number of persons employed underground at any one time exceeds 300, a first aid room shall be established at every mine overseer's cabin, provided that, when any working section is situated more than 1 000 metres along the shortest travelling way from such first aid room, the Principal Inspector of Mines may require the establishment of a separate first aid room adjacent to such working section or sections. Each first aid room, clearly marked as such, shall be equipped and maintained as detailed in regulation 24.1.2. In addition there shall be kept in a readily accessible, clean and dry place in each working section a suitable stretcher provided with two blankets and a first aid box equipped as detailed in regulation 24.1.1.

[Reg. 24.3.3 amended by GN R303 of 1 March 1972 and by GN R94 of 15 January 1997.]

**24.4** Only appliances and requisites for first aid and rescue work shall be kept in a first aid box or in a first aid room.

[Reg. 24.4 amended by GN R305 of 1 March 1972.]

**24.5.1** Every first aid room shall be under the general charge of a person appointed by the manager and who shall be the holder of a valid first aid certificate as required in regulation 24.7.

[Reg. 24.5.1 amended by GN R1352 of 8 July 1988.]

**24.5.2** During each shift when persons are at work in any part of the mine or works the holder of a valid first aid certificate shall be in constant attendance at each first aid room serving such part of the mine or works.

**24.6** One or more notices on which are legibly printed in both official languages simple directions setting forth the approved procedures for the immediate treatment of cases of gassing, heat stroke, heat exhaustion, drowning and electric shock shall be posted up in a conspicuous place in every change-house and in every first aid room.

**24.7** At every mine where more than 300 persons are employed every person under the age of 50 years, who is in charge of workmen and who is employed in the workings or who is normally employed on surface where machinery is operated, shall within one year of his engagement on the mine be in possession of a valid first aid certificate recognised by the *Chief Inspector*: Provided that any person appointed in terms of regulation 2.5.1, 2.6.1, 2.12.1, 2.13.1 or 2.13.3 shall be exempted from being the holder of such certificate. Every first aid certificate shall be renewed at intervals of not more than three years. The provisions of this regulation shall not apply to any person who is the holder of the gold medal of the South African Red Cross Society, the medallion and two labels of the St. John's Ambulance Association, the highest diploma of Die Suid-Afrikaanse Noodhulpliga or to any registered medical, surgical or mental nurse.

[Reg. 24.7 amended by GN R1352 of 8 July 1988 and by GN R94 of 15 January 1997.]

**24.8.1** At every mine and at every works in the vicinity of where cyanide is used there shall be kept in a conspicuous place and maintained for immediate use a sufficient supply of antidote for cyanide poisoning.

**24.8.2** Such antidote shall be kept in a box labelled 'Cyanide Antidote-Sianiedteengif' and explicit directions in both official languages for the use of such antidote shall be displayed inside or near the box.

**24.9** Hand basins or baths with an adequate supply of clean water shall be provided for use by persons who are required to handle, or who may come into contact with, poisonous or corrosive solutions or substances.

**24.10** An adequate supply of wholesome drinking water shall be provided in each testing room and assay office, and this supply shall be distinctly labelled 'Drinking Water-Drinkwater'.

**24.11** When any person employed at a mine or works sustains injury by accident or otherwise, the manager shall make all reasonable arrangements to ensure that the injured person received prompt medical attention and that where the resident medical practitioner or the nearest registered medical practitioner is immediately sent for. If the injured person is unable to proceed unaided to his abode or to a hospital, the manager of the mine or works shall have such person conveyed to his abode or to hospital as quickly as practicable and at the expense of the owner of the mine or works.

**24.12.1 ...**

[Regs. 24.12.1 and 24.12.2 repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.12.2 ...**

[Regs. 24.12.1 and 24.12.2 repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.13.1 to 24.13.3 inclusive ...**

[Regs 24.13.1 to 24.13.3 inclusive repealed by GN R1305 of 12 November 2004.]

**24.14 The following provisions shall apply to every mine-**

**24.14.1 to 24.14.3 inclusive ...**

[Regs. 24.14.1 to 24.14.3 inclusive repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.14.4 ...**

[Reg. 24.14.4 amended by GN R305 of 1 March 1972, by GN R1352 of 8 July 1988 and by GN R94 of 15 January 1997 and repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.14.5 ...**

[Reg. 24.14.5 repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.14.6 ...**

[Reg. 24.14.6 amended by GN R94 of 15 January 1997 and repealed by GN R904 of 2 July 2002.]

**24.15 ...**

[Reg. 24.15 amended by GN R305 of 1 March 1972 and repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.16 ...**

[Reg. 24.16 amended by GN R303 of 1 March 1972 and repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.17 ...**

[Reg. 24.17 repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.18.1 ...**

[Reg. 24.18.1 amended by GN R1352 of 8 July 1988 and repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.18.2** It shall be the duty of the person in charge of the central rescue station to ensure that every set of breathing apparatus under his control is tested and maintained and that the oxygen and carbon dioxide absorbent supplied for use with a breathing apparatus are of the required standard of purity.

**24.18.3 and 24.19 ...**

[Regs. 24.18.3 and 24.19 repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.20.1 ...**

[Reg. 24.20.1 added by GN R2264 of 31 October 1986, amended by GN R2062 of 23 August 1991 and repealed by GN R569 of 17 May 2002.]

**24.20.2.1 ...**

[Reg. 24.20.2.1 substituted by GN R2062 of 23 August 1991 and repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.20.2.2 ...**

[Reg. 24.20.2.2 amended by GN R94 of 15 January 1997 and by GN R569 of 17 May 2002 and repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

**24.20.2.3 ...**

[Reg. 24.20.2.3 substituted by GN R2062 of 23 August 1991 and by GN R94 of 15 January 1997 and repealed by GN R91 of 1 February 2008 wef six months from date of publication.]

[Reg. 24.20.2 added by GN R2264 of 31 October 1986 and substituted by GN R2062 of 23 August 1991.]

**24.20.3 ...**

[Reg. 24.20.3 added by GN R2264 of 31 October 1986, amended by GN R2062 of 23 August 1991 and repealed by GN R569 of 17 May 2002.]

**24.20.4 ...**

[Reg. 24.20.4 added by GN R2264 of 31 October 1986 and amended by GN R2062 of 23 August 1991 and repealed by GN R904 of 2 July 2002.]

**24.20.5 ...**

[Reg. 24.20.5 added by GN R2264 of 31 October 1986, amended by GN R2062 of 23 August 1991 and by GN R94 of 15 January 1997 and repealed by GN R569 of 17 May 2002.]

**CHAPTER 25 ...**

[Chapter 25 amended by GN R1556 of 20 August 1993 and repealed by GN R788 of 14 June 2002.]

## CHAPTER 26

### SUMMONING OF WITNESSES

[Chapter 26 amended by GN R537 of 21 March 1980 and by GN R3083 of 20 December 1991.]

**26.1** The form of summons served on any witness whose evidence is required at any inquiry in terms of the Act is as follows:

To ..... Place .....

You are hereby required to summon ..... that he appears personally at ..... to attend an inquiry before ..... on the ..... day of ....., at ..... to testify or declare all he knows concerning ..... and in connection therewith to hand in the documents and papers hereinafter specified .....  
..... and serve on the said ..... a copy of this summons, and report to the undersigned stating what you have done about it.

Dated at ..... this ..... day of ..... 19 .....

.....  
(Signature of person authorised to issue summons)

Address ..... Code .....

**26.2** Whenever a summons is served as is mentioned in regulation 26.1 on any person, such service shall be effected through the Court of the Magistrate within whose area of jurisdiction such person is resident or employed, or by a member of the Police Force, or by another person who has been authorised to do so by the person issuing such summons.

**26.3** Every such summons as aforesaid shall be signed by the *Chief Inspector*, Principal Inspector of Mines, regional mining engineer or any other person duly authorised by the *Chief Inspector* to issue it and shall specifically state the time and place at which the witness named therein is to attend.

[Reg. 26.3 amended by GN R94 of 15 January 1997.]

**26.4** Whenever a summons in terms of regulation 26.1 is served on a witness at an inquiry under section 28(1), (2) or (5) of the Act, or the attendance of such person at an inquiry is otherwise secured, the provisions of the law and regulations for summoning or securing the attendance of witnesses, in force in the magistrates' courts of the province in which the inquiry is to be held, and also the allowances payable to witnesses shall mutatis mutandis apply.

[Reg. 26.4 substituted by GN R2101 of 15 November 1974.]

## CHAPTER 27

### APPEALS

[Chapter 27 amended by GN R3083 of 20 December 1991.]

**27.1.1** In the case of a mine or works the owner or manager of such mine or works, hereinafter referred to as the appellant, may, within one month after the receipt of any notice, decision, order or instruction issued or given in terms of the Act or of any other notice, decision, order or instruction given to the appellant by the Director-General or any regional director, lodge with the Minister or the Director-General as the case may be, a written notice of appeal against such notice, decision, order or instruction.

**27.1.2** The notice of appeal shall state clearly the grounds on which the appellant intends to rely at the hearing of the appeal.

**27.1.3** The appellant shall at the same time, deposit with the Director-General the sum of R200 when lodging the notice of appeal.

[Reg. 27.1.3 amended by GN R2101 of 15 November 1974.]

**27.1.4** The Minister or the Director-General may, in his discretion and on such conditions as he may decide, condone the late noting of an appeal.

**27.1.5** On receipt of a notice of appeal, the Minister or the Director-General, as the case may be shall appoint a commission which shall be constituted from-

- (a) two persons nominated by the Minister or the Director-General, as the case may be, one of whom shall be designated as chairman;
- (b) two persons nominated by the appellant; and
- (c) one person nominated by or on behalf of the workers mostly concerned with the subject of appeal, in the manner set out in regulation 27.1.6.

- 27.1.6** The Minister or the Director-General shall, in his discretion, decide which class or type of worker is most closely concerned with the subject of the appeal and appoint one of not less than three persons who shall be nominated in each case by such workers' organisation for that class or type of worker: Provided that if such organisation fails to nominate such persons within three days of being requested thereto or if no appropriate organisation exists, the Minister or the Director-General, as the case may be, shall in consultation with the Director-General of the State Department deemed by him to be appropriate in the circumstances, appoint a person.
- 27.1.7** The commission shall commence the hearing of the appeal on the date and at the time and place notified by the chairman to the appellant and the Minister, Director-General and the regional director concerned.
- 27.1.8** The Director-General or regional director concerned shall, within three days upon receipt of the notification contemplated in regulation 27.1.7, submit to the chairman of the commission and to the appellant the reasons for the notice, decision, order or instruction against which an appeal has been lodged and inform the commission what witnesses and evidence are to assist the commission in deciding the appeal: Provided that should such notice, decision, order or instruction have been given verbally, the Director-General or the regional director shall commit it to writing and forward it with the reasons.
- 27.1.9** The hearing of the appeal shall consist of the hearing of oral testimony given under oath, inspections of relevant objects or places, documentary evidence in the form of reports, drawings, plans and the like, or any form of evidence admissible in a Court of Law, and arguments by the Director-General or the regional director concerned and by the appellant or his representative on all the evidence on record.
- 27.1.10** The commission shall first hear the evidence tendered by the Director-General or regional director concerned and shall afford the appellant or his representative an opportunity to cross-examine them; thereafter the evidence of the appellant shall be heard whereupon he may be cross-examined by each member of the commission in the order indicated by the chairman. The commission may call other relevant witnesses who may be cross-examined by the appellant or his representative.
- 27.1.11** The Director-General or regional director concerned may question any witness on any matter relevant to the subject of the appeal.
- 27.1.12** Evidence gained at inspections shall be recorded within hearing of the Director-General or regional director concerned and the appellant.

**27.1.13** All evidence shall be recorded mechanically or in writing and transcriptions thereof shall be made available to any person on payment of such fee as the Director-General in each case may determine.

**27.1.14** At the conclusion of the evidence the Director-General or regional director concerned shall first address the commission on the evidence, and thereafter the appellant or his legal representative shall address the commission.

**27.1.15** All witnesses, except the appellant and the Director-General or regional director concerned, shall be excluded from the hearing until called to testify.

**27.1.16** All decisions of the commission shall be by majority vote of the members and in the event of an equality of votes, the chairman shall have a casting vote in addition to a deliberative vote.

**27.1.17** The commission shall report its decision with reasons for judgment, which decision shall be final and open to the public for inspection.

**27.1.18** The provisions of sections 29 and 30 of the Act, except subsection (2)(b) of section 29, shall mutatis mutandis apply to the hearing of an appeal.

**27.2.1** Where the decision of the commission is given against the appellant in any respect, he may be ordered to pay the entire cost of the commission, or such portion thereof as the commission may determine, as well as any fees payable to any witness who may have been summoned to appear: Provided that the deposit lodged with the Director-General may be forfeited in whole or in part for these purposes.

**27.2.2** Where the decision of the commission be given in favour of the appellant the sum deposited by him shall be returned to him forthwith.

**27.3** The members of such commission other than Government officers, while engaged in the hearing of the appeal, shall in addition to all reasonable travelling expenses, receive the following daily allowances-

- (a) when not away overnight from his usual place of residence, the chairman R10,50 and any other member of such commission R8;
- (b) when away overnight from his usual place of residence, the chairman R21,50 and any other members of such commission R19.

[Reg. 27.3 substituted by GN R2101 of 15 November 1974.]

## CHAPTER 28

### CERTIFICATES OF COMPETENCY

**28.1.1** The certificates of competency mentioned in this chapter shall be granted by the *Chief Inspector* in accordance with the recommendations of the relevant Commission of Examiners, except where specifically stated to the contrary.

[Reg. 28.1.1 amended by GN R94 of 15 January 1997.]

**28.1.2** Any person wishing to obtain a certificate of competency, as provided for in this chapter, shall make application therefor to the relevant Commission of Examiners, appointed from time to time or other examining authority.

**28.1.3** A candidate may appeal against any decision of any examining authority to the *Chief Inspector*, who may refer the matter back to the examining authority for further report and the decision of the *Chief Inspector* shall be final. Each such appeal, which shall be in writing, shall be lodged within 31 days after the date of the examining authority's decision and each such appeal shall be accompanied by R40 in the case of a written examination and R20 in the case of an oral examination: Provided that in the event of the appeal being successful the fee shall be refunded: Provided further that in the case of the qualifying examination for a mechanical engineer's or electrical engineer's certificate of competency an appeal against the examining authority's decision shall be lodged with the Department of National Education in accordance with such rules and subject to the payment of such fees as may be determined from time to time by that Department.

[Reg. 28.1.3 amended by GN R1346 of 4 August 1972, substituted by GN R513 of 1 April 1977, amended by GN R2703 of 11 December 1981 and by GN R2566 of 20 November 1987 and by GN R94 of 15 January 1997.]

**28.2** Any certificate in which any alteration or erasure has been made, other than by the relevant issuing authority or other legally authorised person, shall be invalid.

**28.3** Each Commission of Examiners shall be selected, appointed and discharged by the *Chief Inspector*, and shall furnish reports of its proceedings to him: Provided that in the case of mechanical and electrical engineer's certificates of competency, such selection, appointment and discharge shall be in consultation with the *Chief Inspector* as defined in the Machinery and Occupational Safety Act, 1983.

[Reg. 28.3 amended GN R2566 of 20 November 1987 and by GN R94 of 15 January 1997.]

**28.4** Examinations shall be held by the said Commissions at such times and places as may be determined by the *Chief Inspector*: Provided that in the case of the qualifying examination for a mechanical engineer's or electrical engineer's certificate of competency the examination shall be held by the Department of National Education at times and places determined by that Department.

[Reg. 28.4 amended GN R2566 of 20 November 1987 and by GN R94 of 15 January 1997.]

**28.5** An applicant for examination may obtain from the secretary to the Commissions of Examiners the appropriate form and a copy of the relevant examination syllabus and the rules applying to candidates.

**28.6** Instructions for the guidance of examining and issuing authorities, as well as rules for the conduct of examinations by such authorities, including syllabi for such examinations, shall be framed by the *Chief Inspector* who shall have the power to amend such instructions or alter such rules as occasion may require: Provided that in the case of a mechanical engineer's or electrical engineer's certificate of competency the framing of instructions and rules, including syllabi, and amendments thereto shall be done in consultation with the *Chief Inspector* as defined in the Machinery and Occupational Safety Act, 1983: Provided further that the rules for the conduct of the qualifying examination shall be determined by the Department of National Education.

[Reg. 28.6 amended GN R2566 of 20 November 1987 and by GN R94 of 15 January 1997.]

**28.7** A quorum of a Commission of Examiners shall consist of the chairman and two members or, in the case of a Commission of Examiners for blasting certificates, of the chairman and one member. Should any difference of opinion arise in any matter connected with the examination of a candidate, it shall be decided by a majority of votes of the members of the Commission. If the votes be equal the chairman shall have an additional or casting vote.

**28.8** An officer of the Department of Mineral and Energy Affairs shall act as secretary to every Commission of Examiners and shall keep minutes of the proceedings of such Commission.

[Reg. 28.8 amended GN R2566 of 20 November 1987.]

**28.9** Any Commission of Examiners, in any special case, may recommend to the *Chief Inspector* the issue to a candidate of a certificate limited in scope in accordance with the rules framed in terms of regulation 28.6, provided such candidate has the requisite experience and qualifications, and satisfies the Commission that he has sufficient knowledge of his statutory responsibilities and of the subjects appropriate to his work. The validity of a certificate issued in terms of this regulation may be further limited to a specified period of time. The Commission may require such candidate to submit himself to a written or an oral examination in any of the subjects prescribed, and shall make a recommendation regarding the limitations to which such certificate is subject.

[Reg. 28.9 amended by GN R94 of 15 January 1997.]

**28.10** An initial application for acceptance as a candidate and each application thereafter for examination for a certificate of competency shall, when handed in, bear uncancelled revenue stamps to the value shown hereunder: Provided that in the case of a mechanical engineer's or an electrical engineer's certificate of competency application to sit for the qualifying examination shall be made to the Department of National Education, to whom the examination fees, as determined from time to time by that Department, shall be paid.

[Reg. 28.10 amended by GN R2703 of 11 December 1981 and by GN R2566 of 20 November 1987.]

## TABLE OF EXAMINATION FEES

Proposed value of stamps to be affixed to application

[Table of Examination Fees amended by GN R3083 of 20 December 1991 and substituted by GN R1324 of 12 November 1999.]

	<b>Certificate</b>	<b>On initial application for acceptance as a candidate</b>	<b>On each application for examination for a certificate</b>
1.	<b>Mine Manager's certificate</b>	Part A: R50 Part B: R50 Part C: R50	Part A: R100 Part B: R100 Part C: R100
2.	<b>Mine Overseer's certificate</b>	R50	Part A: R50 Part B: R50 Part A & Part B: R100
3.	<b>Mine Surveyor's certificate</b>	R50	Part A: R100 Part B: R100 Part A & Part B: R200
4.	<b>Mechanical Engineer's: Mines and Works certificate</b>	R50	Fees as determined by the Mines & Works certificate appropriate department.
5.	<b>Electrical Engineer's: Mines and Works certificate</b>	R50	Fees as determined by the Mines & Works certificate appropriate department.
6.	<b>Mine Assayer's certificate</b>	R50	Part A: R100 Part B: R100
7.	<b>Winding Engine Driver's certificate</b>	R50	R50
8.	<b>Locomotive Engine Driver's certificate</b>	R50	R50

	<b>Certificate</b>	<b>On initial application for acceptance as a candidate</b>	<b>On each application for examination for a certificate</b>
9.	<b>Stationary Engine Driver's certificate</b>	R50	R50
10.	<b>Boiler Attendant's certificate</b>	R50	R50
11.	<b>Blasting Certificate: Scheduled mines or fiery mines</b> i). Permanent ii). Provisional iii). Exchange: provisional to permanent	Provisional	R50 R50 R10
12	<b>Blasting Certificate: Opencast &amp; other mines or works</b> i). Permanent ii). Provisional iii). Exchange: provisional to permanent		R25 R25 R10
13	<b>Lampman's certificate</b>		R25
14	<b>Onsetter's certificate</b>		R25

**28.11** No person shall submit an application for examination unless and until he has been accepted as a candidate.

**28.12** On proof being furnished by the holder, to the satisfaction of the *Chief Inspector*, that a certificate mentioned in regulation 28.10 has been lost, defaced or destroyed or has become dilapidated, a duplicate certificate shall be issued on payment of a fee of R20 in the case of a mine manager's certificate, mine overseer's certificate, mine surveyor's certificate, mechanical engineer's or electrical engineer's certificate or mine assayers' certificate and a fee of R10 in the case of any other certificate. The prescribed fee shall be paid in uncancelled revenue stamps. Such certificate shall bear the words 'Duplicate-Duplicaat'.

[Reg. 28.12 substituted by GN R2101 of 15 November 1974, amended GN R2566 of 20 November 1987 and by GN R94 of 15 January 1997.]

### **Mine Manager's Certificate**

**28.13.1** The constitution of a Commission of Examiners for a mine manager's certificate of competency shall be as follows-

A Chief director or a director who is a certificated mine manager (the chairman); any officer in the service of the Department who is a certificated mine manager; an officer in the service of the Department who is a certificated mechanical and electrical engineer (mines); and at least three certificated mine managers, whether actually engaged in the management of a mine or not, of whom at least one shall be the holder of a certificate appropriate to the examination being conducted.

[Reg. 28.13.1 amended GN R2566 of 20 November 1987 and by GN R3083 of 20 December 1991.]

**28.13.2** The examination shall consist of two parts, namely-

Part A-Mine surveying, geology, and mechanical and electrical engineering.

Part B-The Act and regulations made or deemed to have been made thereunder and mining including mine ventilation.

Parts A and B may be taken at the same examination or at separate examinations, but a candidate who has passed on part shall only receive credit for such part for a limited period only, as laid down in the rules framed under regulation 28.6.

[Reg. 28.13.2 amended by GN R3083 of 20 December 1991.]

**28.13.3** An applicant who can satisfy the *Chief Inspector*-

- (a) that he holds a mine manager's certificate of competency not issued in terms of this chapter or a mining engineer's degree from a university or other qualification, provided that such certificate, degree or other qualification is recognised for the purpose by the *Chief Inspector*; and

[Para. (a) amended by GN R94 of 15 January 1997.]

- (b) that he has had such period of mining experience, acceptable for the purpose by the *Chief Inspector*, gained in the workings of a mine, shall be exempted from such part or subjects of the examination as the *Chief Inspector* may determine, provided he submits an application bearing uncancelled revenue stamps to the value specified in regulation 28.10 for the whole of the examination.

[Para. (b) amended by GN R305 of 1 March 1972 and by GN R94 of 15 January 1997.]

[Reg. 28.13.3 amended by GN R94 of 15 January 1997.]

**28.14.1** An applicant shall not be accepted as a candidate for Part A of the examination unless he has produced evidence satisfactory to the Commission-

- (a) of his sobriety and general good conduct;
- (b) that he has had at least three years mining experience acceptable to the Commission.

[Reg. 28.14.1 amended by GN R3083 of 20 December 1991.]

**28.14.2** An applicant shall not be accepted as a candidate for Part B of the examination unless he has produced evidence satisfactory to the Commission-

- (a) of his sobriety and general good conduct;
- (b) that he is the holder of an appropriate blasting certificate recognised by the *Chief Inspector* for the purposes of the examination;

[Para. (b) amended by GN R94 of 15 January 1997.]

- (c) that he has had at least four years' mining experience acceptable to the Commission.

[Reg. 28.14.2 amended by GN R3083 of 20 December 1991.]

**28.14.2(A)** An applicant shall not be accepted as a candidate for Part C of the examination unless he has passed Part B and has produced evidence satisfactory to the Commission-

- (a) that he has attained the age of 23 years;
- (b) of his sobriety and good general conduct;
- (c) that he is the holder of a permanent blasting certificate recognised by the *Chief Inspector* for the purpose of the examination;

[Para. (c) amended by GN R94 of 15 January 1997.]

- (d) that, except as provided for in regulation 28.14.3, he has had at least five years mining experience acceptable to the Commission of which at least four years' shall have been gained in the workings of a mine and such experience shall include at least six months at the working face on rock-breaking or winning minerals or work directly connected therewith; and
- (e) that he has had at least six months' mining experience, acceptable to the Commission, in the workings of the class of mine appropriate to the certificate for which he wishes to apply.

[Reg. 28.14.2(A) inserted by GN R3083 of 20 December 1991.]

**28.14.3 An applicant who can satisfy the Commission-**

- (a) that he holds a mining engineer's degree of a South African university; or
- (b) that he holds a mechanical or electrical engineer's certificate of competency for mines and works issued in accordance with these Regulations; or
- (c) that he holds any other degree, certificate or diploma recognised by the *Chief Inspector* for the purposes of the examination,

[Para. (c) amended by GN R94 of 15 January 1997.]

may be exempted from not more than three of the number of years of mining experience required in terms of regulation 28.14.1 or 28.14.2, the period of exemption being as laid down in the rules framed under regulation 28.6. The period for which no exemption is granted shall be a period during which experience was gained in the workings of a mine.

**28.14.4 The experience gained by the applicant in the workings of a mine during the unexempted period referred to in regulation 28.14.3, shall be such as is acceptable to the Commission and as much thereof as may be required by the Commission shall be practical experience additional to the experience prescribed for the said degree, certificate or diploma.**

[Reg. 28.14.4 amended by GN R537 of 21 March 1980.]

**28.15 Except as provided for in regulation 28.13.3, a certificate shall not be issued unless the Commission is satisfied that, within the scope indicated in the syllabus for the examination drawn up in terms of regulation 28.6, the candidate possesses a sufficient knowledge of mining, mine ventilation, mechanical and electrical engineering, mine surveying, geology, and the Act and the regulations made or deemed to have been made thereunder.**

**28.16.1 Separate certificates shall be issued for metalliferous mines and for coal mines and the examination shall be conducted to suit each class of certificate.**

**28.16.2** A certificate for metalliferous mines shall be valid for all mines except coal mines. A certificate for coal mines may be limited in scope to non-fiery coal mines.

**28.16.3** The holder of a mine manager's certificate for non-fiery coal mines shall qualify for a mine manager's certificate for coal mines if he can furnish proof that he has had six months' experience acceptable to the Commission in fiery mines and submits an application bearing uncancelled revenue stamps to the value of R14.

#### **Mine overseer's certificate**

**28.17** The constitution of a Commission of Examiners for a mine overseer's certificate of competency shall be as follows-

An officer in the service of the Department who is a certificated mine manager (the chairman); an officer in the service of the Department who is a certificated mechanical or electrical engineer (mines); and at least two certificated mine managers, whether actually engaged in the management of a mine or not: Provided that the qualifying certificates shall be appropriate to the examination being conducted.

[Reg. 28.17 amended by GN R3083 of 20 December 1991.]

**28.18.1** An applicant shall not be accepted as a candidate for examination unless he has produced evidence satisfactory to the Commission-

- (a) that he has attained the age of 21 years;
- (b) of his sobriety and general good conduct;
- (c) that he is the holder of a blasting certificate recognised by the *Chief Inspector* for the purposes of this examination;

[Para. (c) amended by GN R94 of 15 January 1997.]

- (d) that, except as provided for in regulation 28.28.2, he has had at least four years of practical experience, acceptable to the Commission, gained in the workings of a mine and such experience shall include at least six months at the working face on rock-breaking or winning minerals or work directly connected therewith; and
- (e) that he has had at least six months' mining experience, acceptable to the Commission, in the workings of the class of mine appropriate to the certificate for which he wishes to qualify.

**28.18.2** An applicant who can satisfy the Commission-

- (a) that he holds a mining engineer's degree of a South African University; or
- (b) that he holds a mechanical or electrical engineer's certificate of competency for mines and works issued in accordance with these Regulations; or
- (c) that he holds any other degree, certificate or diploma recognised by the *Chief Inspector* for the purposes of the examination,

[Para. (c) amended by GN R94 of 15 January 1997.]

may be exempted from not more than two of the said four years of practical experience in the workings of a mine, the period of exemption being as laid down in the rules framed in terms of regulation 28.6.

**28.18.3** The experience gained by the applicant in the workings of a mine during the unexempted period referred to in regulation 28.18.2, shall be such as is acceptable to the Commission and as much thereof as may be required by the Commission shall be practical experience additional to the experience prescribed for the said degree, certificate or diploma.

[Reg. 28.18.3 substituted by GN R537 of 21 March 1980.]

**28.19.1** A certificate shall not be issued unless the Commission is satisfied that, within the scope of the syllabus for the examination drawn up in terms of regulation 28.6, the candidate possesses a sufficient knowledge of mining practice, shaft practice, ventilation, gases, dust control, underground machinery, mine plans and the Act and the regulations made or deemed to have been made thereunder.

**28.19.2** Separate certificates shall be issued for metalliferous mines and for coal mines and the examination shall be conducted to suit each class of certificate.

**28.19.3** A certificate for metalliferous mines shall be valid for all mines except coal mines. A certificate for coal mines may be limited in scope to non-fiery coal mines.

**28.19.4** The holder of a mine overseer's certificate for non-fiery coal mines shall qualify for a mine overseer's certificate for coal mines if he can furnish proof that he has had six months' experience acceptable to the Commission and submits an application bearing uncancelled revenue stamps to the value of R6.

### **Mine surveyor's certificate**

**28.20.1** The constitution of a Commission of Examiners for a mine surveyor's certificate of competency shall be as follows-

A Chief director or a director who is a certificated mine surveyor (the chairman); an officer in the service of the Department who is a certificated mine surveyor; and at least four other certificated mine surveyors.

[Reg. 28.20.1 substituted by GN R513 of 1 April 1977, amended GN R2566 of 20 November 1987 and by GN R3083 of 20 December 1991.]

**28.20.2** The examination shall consist of two parts, namely-

Part A-Mine valuation, geology and mathematics.

Part B-Surveying and the relevant portions of Mining laws of the Republic of South Africa.

Parts A and B may be taken at the same examination or at separate examinations, but a candidate who has passed one part only shall receive credit for such part for a limited period only, as laid down in the rules framed under regulation 28.6.

[Reg. 28.20.2 amended by GN R2706 of 23 November 1990.]

**28.20.3** An applicant shall not be accepted as a candidate for examination unless he has produced evidence satisfactory to the Commission-

(a) of his sobriety and general conduct; and

(b) that he has had at least one year of practical surveying experience, acceptable to the Commission, gained in the workings of a mine.

[Reg. 28.20.3 amended by GN R2706 of 23 November 1990.]

**28.20.4** A certificate shall not be issued unless the Commission is satisfied that, within the scope indicated in the syllabus for the examination drawn up in terms of regulation 28.6, the candidate possess a sufficient knowledge of surveying, mathematics, mining economics, geology and the relevant portions of mining laws of the Republic of South Africa.

[Reg. 28.20.4 amended by GN R2706 of 23 November 1990.]

**28.20.5** An applicant who can satisfy the *Chief Inspector* that he holds a University degree recognised for the purpose by the *Chief Inspector* shall be exempted from such part of subjects of the examination as the *Chief Inspector* may determine and shall be accepted as a candidate provided that-

(a) he qualifies for acceptance as a candidate in terms of regulation 28.30.3(a);

(b) that he has at least one year's experience in underground surveying acceptable to the commission; and

- (c) that he submits an application bearing uncancelled revenue stamps to the value specified in regulation 28.10 for the whole of the examination.

[Reg. 28.20.5 amended by GN R1352 of 8 July 1988, substituted by GN R2706 of 23 November 1990 and amended by GN R94 of 15 January 1997.]

## **Mine assayer's certificate**

### **28.21.1 ...**

[Regs. 28.21.1 deleted by GN R3083 of 20 December 1991.]

### **28.21.2 ...**

[Regs. 28.21.2 deleted by GN R3083 of 20 December 1991.]

### **28.21.3 ...**

[Regs. 28.21.3 deleted by GN R3083 of 20 December 1991.]

### **28.21.4 ...**

[Regs. 28.21.4 deleted by GN R3083 of 20 December 1991.]

### **28.21.5 ...**

[Regs. 28.21.5 deleted by GN R3083 of 20 December 1991.]

### **28.21.6 ...**

[Regs. 28.21.6 deleted by GN R3083 of 20 December 1991.]

### **28.21.7 ...**

[Regs. 28.21.7 deleted by GN R3083 of 20 December 1991.]

### **28.21.8 ...**

[Regs. 28.21.8 deleted by GN R3083 of 20 December 1991.]

### **28.21.9 ...**

[Regs. 28.21.9 deleted by GN R3083 of 20 December 1991.]

## **Mechanical and electrical engineers' Certificates for mines and works**

**28.22.1** The constitution of a Commission for a mechanical engineer's or electrical engineer's certificate of competency shall be as follows-

A Chief director, director or deputy director who is a certificated mechanical and electrical engineer (mines) (the chairman); an officer in the service of the Department who is a certificated mechanical or electrical engineer (mines); at least two certificated mechanical engineers and at least two certificated electrical engineers: Provided that for the purpose of this regulation 'certificated engineer' means a person who holds a mechanical engineer's or an electrical engineer's certificate of competency, which certificate has been granted in terms of regulations made under section 63 of the Minerals Act, 1991 (Act 50 of 1991) under section 35 of the Machinery and Occupational Safety Act, 1983 (Act 6 of 1983) or any other prior law.

[Reg. 28.22.1 amended GN R2566 of 20 November 1987 and by GN R3083 of 20 December 1991]

**28.22.2** The qualifying examination shall consist of two subjects, namely-

- (a) Plant Engineering (Mining); and
- (b) the Act and regulations made or deemed to have been made thereunder.

The two subjects may be taken at the same examination or at separate examinations, but a candidate who has passed one subject only shall receive credit for such subject for a limited period only, as laid down in the rules framed under regulation 28.6.

[Reg. 28.22.2 amended GN R2566 of 20 November 1987]

**28.23.1** An applicant shall not be accepted as a candidate for the qualifying examination, unless he has produced evidence satisfactory to the Commission-

- (a) that he has attained the age of 23 years;
- (b) of his sobriety and general good conduct;
- (c) that, except as is provided for in regulations 28.23.2 and 28.23.3, he has had at least nine years of practical experience acceptable to the Commission and appropriate to the certificate for which he wishes to qualify; and
- (d) that he has academic qualifications as stipulated in the rules framed under regulation 28.6.

[Reg. 28.23.1 amended GN R2566 of 20 November 1987]

**28.23.2 An applicant who can satisfy the Commission-**

- (a) that he holds a degree in mechanical or electrical engineering recognised by the *Chief Inspector* for the purpose of acceptance as a candidate; or

[Para. (a) amended by GN R94 of 15 January 1997]

- (b) that he holds a diploma or certificate in mechanical or electrical engineering recognised by the *Chief Inspector* for the purpose of acceptance as a candidate; or

[Para. (b) amended by GN R94 of 15 January 1997]

- (c) that he has served an apprenticeship in a trade or undergone a course of training acceptable to the *Chief Inspector* for the purpose of acceptance as a candidate, may be exempted from a portion, but not exceeding seven years, of the said nine years of practical experience. The period of exemption being as laid down in the rules framed under regulation 28.6.

[Para. (c) amended by GN R94 of 15 January 1997]

[Reg. 28.23.2 amended GN R2566 of 20 November 1987]

**28.23.3 The experience gained during the unexempted period under regulation 28.23.2 shall be acceptable to the Commission and shall be additional to any practical experience prescribed for the degree, diploma or certificate referred to in paragraphs (a) and (b) of regulation 28.23.2.**

[Reg. 28.23.3 amended GN R2566 of 20 November 1987]

**28.23.4 An applicant who can satisfy the *Chief Inspector*-**

- (a) that he holds a university degree or equivalent qualification in mechanical or electrical engineering which is acceptable to the *Chief Inspector* for the purposes of the examination; and

[Para. (a) amended by GN R94 of 15 January 1997]

- (b) that he has had at least three years of practical experience acceptable to the Commission, may be exempted from such subjects of the examination as the *Chief Inspector* may determine.

[Reg. 28.23.4 amended GN R2566 of 20 November 1987 and by GN R94 of 15 January 1997]

**28.24** Except as provided in regulation 28.23.4, a certificate shall not be issued unless a candidate has satisfied the Commission that, within the scope indicated in the syllabus for the examination drawn up in terms of regulation 28.6, the candidate possesses a sufficient knowledge of the design, construction, erection, operation and maintenance of machinery, apparatus and plant, and of the Act and the regulations made, or deemed to have been made thereunder.

#### **Winding-engine driver's certificate**

**28.25** The constitution of a Commission of Examiners for a winding-engine driver's certificate of competency shall be as follows-

An officer in the service of the Department who is a certificated mechanical or electrical engineer (mines) (the chairman); at least one certificated mechanical engineer; at least one certificated electrical engineer; at least two certificated winding-engine drivers employed in driving engines used for the purpose described in regulation 16.83.1.

[Reg. 28.25 amended GN R2566 of 20 November 1987 and by GN R3083 of 20 December 1991]

**28.26.1** An applicant shall not be accepted as a candidate for examination unless he has produced evidence satisfactory to the Commission-

(a) that he has attained the age of 19 years;

[Para. (a) amended by GN R2101 of 15 November 1974]

(b) that he is a moderate user of alcohol, generally of good conduct and a fit and proper person to be the holder of a winding-engine driver's certificate;

[Para. (b) amended by GN R1352 of 8 July 1988]

(c) of having had experience, acceptable to the Commission, of shaft operations and the work of an onsetter or a banksman for at least 12 shifts;

(d) of having had experience, acceptable to the Commission, on reversible winding engines fitted with clutches and depth indicators and operated at a normal winding speed of not less than 2,5 metres per second, as specified in regulations 28.26.2.1, 28.26.2.2, 28.26.2.3 and 28.26.2.4, and

[Para. (d) amended by GN R303 of 1 March 1972 and by GN R537 of 21 March 1980.]

(e) of having had experience, acceptable to the Commission of the working of steam boilers, as specified in regulations 28.26.2.1, 28.26.2.2, 28.26.2.3 and 28.26.2.4.

[Para. (e) amended by GN R537 of 21 March 1980.]

**28.26.2.1** To obtain a certificate to drive an electric winding engine, the experience required in terms of paragraph (d) of regulation 28.26.1 shall be at least six months, which shall include at least 50 shifts on alternating current electric winding engines and at least 50 shifts on direct current electric winding engines. No experience shall be required under paragraph (e) of regulation 28.26.1.

**28.26.2.2** To obtain a certificate to drive a steam winding engine, the experience required in terms of paragraph (d) of regulation 28.26.1 shall be at least five months, which shall include at least 75 shifts on steam winding engines. The experience required in terms of paragraph (d) of regulation 28.26.1 shall be at least 25 shifts.

**28.26.2.3** To obtain a certificate to drive all types of winding engines, the experience required in terms of paragraph (d) of regulation 28.26.1 shall be at least eight months, which shall include at least 50 shifts on alternating current electric winding engines, at least 50 shifts on direct current electric winding engines and at least 50 shifts on steam winding engines. The experience required in terms of paragraph (e) of regulation 28.26.1 shall be at least 25 shifts.

**28.26.2.4** The experience specified in regulations 28.26.2.1, 28.26.2.2 and 28.26.2.3 shall be periods of full-time employment.

**28.26.3** An applicant who can satisfy the Commission that he has completed a course of training for winding-engine drivers approved by the *Chief Inspector*, may be accepted as having had training and experience equivalent to that specified in paragraphs (c), (d) and (e) of regulation 28.26.1.

[Reg. 28.26.3 amended by GN R537 of 21 March 1980 and by GN R94 of 15 January 1997]

**28.26.4** An applicant who can satisfy the Commission that he holds any one of the undermentioned certificates issued in accordance with these Regulations, may be exempted from some or all of the experience specified under paragraphs (c), (d) and (e) of regulation 28.26.1 as follows-

- (a) Stationary-engine driver's certificate or steam locomotive-engine driver's certificate:  
75 shifts in charge of winding engines and 25 shifts on boilers.
- (b) Locomotive engine-driver's certificate other than for steam or internal combustion locomotive:  
75 shifts in charge of winding engines.
- (c) Boiler attendant's certificate:  
25 shifts on boilers.
- (d) Onsetter's certificate:  
12 shifts of shaft operations and the work of an onsetter or banksman.

**28.26.5.1** An applicant who can satisfy the Commission that he holds a winding-engine driver's certificate for electric winding engines only, issued in accordance with these Regulations, and who wishes to obtain a certificate for steam winding engines, shall not be accepted as a candidate for examination unless he has produced evidence of having had experience, acceptable to the Commission, of at least 50 shifts on reversible steam winding engines fitted with depth indicators and clutches and operating at a normal winding speed of not less than 2,5 metres per second and at least 25 shifts in the working of boilers.

[Reg. 28.26.5.1 amended by GN R303 of 1 March 1972]

**28.26.5.2** An applicant who can satisfy the Commission that he holds a winding-engine driver's certificate for steam winding engines only, issued in accordance with these Regulations, and who wishes to obtain a certificate for electric winding engines, shall not be accepted for examination unless he has produced evidence of having had experience, satisfactory to the Commission, of at least 75 shifts on both alternating current and direct current winding engines, with a minimum of 25 shifts on each type of winding engine, such engines to be reversible, fitted with depth indicators and clutches and operating at a normal speed of not less than 2,5 metres per second.

[Reg. 28.16.5.2 amended by GN R303 of 1 March 1972]

**28.26.6** An applicant for a certificate to drive electric winding engines only who can submit a certificate granted to him by the manager to the effect that-

(a) he has completed a course of training of seven months of full time service as a learner driver, which period shall include at least 50 shifts on alternating current electric winding engines and at least 50 shifts on direct current electric winding engines under the supervision of a certificated winding engine driver, such winding engines to be reversible, fitted with clutches and operating at a normal speed of not less than 2,5 metres per second; and

[Para. (a) amended by GN R303 of 1 March 1972]

(b) he has acquired competency in the handling of winding engines to the satisfaction of the engineer or competent person in charge of machinery and the certificated driver under whose supervision he received his training, may be accepted as having had training and experience equivalent to that called for under paragraph (d) of regulation 28.26.1.

**28.26.7** An applicant for a certificate to drive steam winding engines only who can submit a certificate granted to him by the manager to the effect that-

- (a) he has completed a course of training of seven months of full time service as a learner driver, which period shall include at least 75 shifts under the supervision of a certificated winding engine driver on reversible steam winding engines fitted with clutches and operating at a normal winding speed of not less than 2,5 metres per second and at least 25 shifts on the working of steam boilers; and

[Para. (a) amended by GN R303 of 1 March 1972]

- (b) he has acquired competency in the handling of steam winding engines to the satisfaction of the engineer or competent person in charge of machinery and the certificated driver under whose supervision he received his training, may be accepted as having had training and experience equivalent to that called for under paragraphs (d) and (e) of regulation 28.26.1.

**28.27** A certificate shall not be issued unless the Commission is satisfied that neither the sight nor hearing of the candidate is defective, that he is not subject to any other infirmity, mental or physical, likely to interfere with the efficient discharge of his duties, and that, within the scope indicated in the syllabus for the examination drawn up in terms of regulation 28.6, the candidate possess a sufficient knowledge of the working of winding plants, of winding operations, of other machinery and ancillary equipment used in or in connection with winding, and of the Act and the regulations made or deemed to have been made thereunder.

#### **Locomotive-engine driver's certificate**

**28.28** A locomotive-engine driver's certificate may be granted for any one or for all types of locomotives used at a mine or at a works and shall especially qualify the holder to drive the type of locomotive specified on his certificate while such locomotive is in use for the conveyance of persons at a mine or works.

**28.29** The constitution of a Commission of Examiners for locomotive-engine drivers' certificates of competency shall be as follows-

An officer in the service of the Department who is a certificated mechanical or electrical engineer (mines) (the chairman); at least one certificated engineer; and at least two certificated locomotive engine drivers.

[Reg. 28.29 amended GN R2566 of 20 November 1987 and by GN R3083 of 20 December 1991]

**28.30** An applicant shall not be accepted as a candidate for examination unless he has produced evidence satisfactory to the Commission-

- (a) that he has attained the age of 19 years;
- (b) that he is a moderate user of alcohol, generally of good conduct and a fit and proper person to be the holder of a locomotive-engine driver's certificate; and

(c) of having had training and experience on locomotives. Such training and experience shall be acceptable to the Commission and shall include at least six months on the footplate of a running locomotive in the case of a steam locomotive-engine driver's certificate and three months of equivalent experience in the case of any other locomotive-engine driver's certificate.

**28.31** A certificate shall not be issued unless the Commission is satisfied that neither the sight nor the hearing of the candidate is defective, that he is not subject to any other infirmity, mental or physical, likely to interfere with the efficient discharge of his duties, and that, within the scope indicated in the syllabus for the examination drawn up in terms of regulation 28.6, the candidate possesses a sufficient knowledge of the construction and operation of locomotives, trains and ancillary equipment, and of the Act and the regulations made or deemed to have been made thereunder.

### **Stationary-engine driver's certificate**

**28.32** ...

[Reg. 28.32 deleted by GN R3083 of 20 December 1991]

**28.33** ...

[Reg. 28.33 amended GN R2566 of 20 November 1987 and deleted by GN R3083 of 20 December 1991]

**28.34.1** ...

[Reg. 28.34.1 amended by GN R303 of 1 March 1972, by GN R2101 of 15 November 1974 and deleted by GN R3083 of 20 December 1991]

**28.34.2** and **28.35** ...

[Regs. 28.34.2 and 28.35 deleted by GN R3083 of 20 December 1991]

### **Boiler Attendant's Certificate**

**28.36** ...

[Reg. 28.36 amended GN R2566 of 20 November 1987 and deleted by GN R3083 of 20 December 1991]

**28.37** and **28.38** ...

[Regs. 28.37 and 28.38 deleted by GN R3083 of 20 December 1991]

## Blasting Certificates

**28.39** The constitution of a Commission of Examiners for blasting certificates shall be as follows-

An officer in the service of the Department who is a certificated mine manager (the chairman); the holder of a mine manager's certificate; and the holder of a blasting certificate: Provided that the qualifying certificates of the member of the commission shall be appropriate to the examination being conducted.

[Reg. 28.39 amended by GN R3083 of 20 December 1991]

**28.40.1** Every application for a permanent or for a provisional blasting certificate shall be on the appropriate form and shall be addressed to the secretary of the relevant Commission of Examiners or to the Principal Inspector of Mines, as the case may be; and

- (a) shall bear uncancelled revenue stamps to the value indicated in regulation 28.10;
- (b) shall contain a true record, certified by the manager under whom the applicant is working, of the applicant's experience and qualifications;

[Para. (b) amended by GN R537 of 21 March 1980.]

- (c) shall contain a statement by the manager, under whom the applicant is working at the time of making application, specifying whether the applicant is a moderate user of alcohol, whether he is generally of good conduct and that he is a fit and proper person to be the holder of a blasting certificate and to be in charge of explosives; and

[Para. (c) amended by GN R1352 of 8 July 1988]

- (d) shall contain proof that the applicant is in possession of a valid first aid certificate recognised by the Principal Chief Inspector.

[Para. (d) inserted by GN R537 of 21 March 1980.]

[Reg. 28.40.1 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997]

**28.40.2** Notwithstanding anything stated to the contrary, the issuing authority in exceptional circumstances, may accept an application for a provisional or for a permanent blasting certificate without the application being endorsed by a manager.

**28.40.3** A provisional blasting certificate shall be valid for an indefinite period but only for the mine or for the works in respect of which it is issued, provided that it shall be transferable by the issuing authority from mine to mine or from works to works on application of the manager of the mine or of the works to which it is to be transferred.

**28.40.4** A provisional blasting certificate may be exchanged for a permanent blasting certificate on application to the issuing authority, provided that the applicant has attained the age of 20 years and the application-

- (a) bears uncancelled revenue stamps to the value indicated in regulation 28.10;
- (b) contains a record of the work which the applicant has performed prior to and while holding a provisional blasting certificate, and provided that the total period of his work is sufficient to qualify him for a permanent blasting certificate;
- (c) is endorsed by the manager under whom the applicant is working to the effect that the applicant has performed the work indicated in paragraph (b) of this regulation and is a fit and proper person to be the holder of a permanent blasting certificate; and
- (d) is accompanied by the provisional blasting certificate.

**28.40.5** The holder of a mining engineer's degree or diploma recognised by the *Chief Inspector* may be exempted from one-half of the period of experience required for a blasting certificate.

[Reg. 28.40.5 amended by GN R94 of 15 January 1997]

**28.40.6** A student of the Government Miners' Training College or a student attending a training course in mining approved by the *Chief Inspector*, may be exempted from the age restriction of 20 years, and from such part of the qualifying period of experience for a provisional or a permanent blasting certificate, as the issuing authority may determine.

Any other applicant for a provisional blasting certificate may be exempted from the age restriction of 20 years, provided that he has undergone training acceptable to the issuing authority.

[Reg. 28.40.6 substituted by GN R513 of 1 April 1977 and amended by GN R94 of 15 January 1997]

**28.40.7** Except as provided for in regulations 28.40.6, 28.40.8.1 and 28.40.8.2-

[Reg. 28.40.7 amended by GN R513 of 1 April 1977]

**28.40.7.1** an applicant shall not be accepted as a candidate for examination for a provisional blasting certificate for any mine or for any works unless he has produced evidence satisfactory to the issuing authority that-

- (a) he has attained the age of 20 years; and
- (b) subject to regulation 28.41.3.1, he has had at least the required number of shifts of experience, acceptable to the issuing authority, gained in the workings of a mine or works. Of this period at least 75 shifts shall have been spent at the working face on rock-breaking or winning minerals or work directly connected therewith, of which shifts, in the case of a mine, at least 25 shall have been in a mine of the class to which the certificate is appropriate;

[Para. (b) substituted by GN R513 of 1 April 1977]

**28.40.7.2** an applicant shall not be accepted as a candidate for examination for a permanent blasting certificate for any mine or works unless he has produced evidence satisfactory to the issuing authority that-

- (a) he has attained the age of 20 years; and
- (b) subject to regulation 28.41.3.2, has had at least the required number of shifts of experience acceptable to the issuing authority, gained in the workings of a mine or in a works. Of this period at least 75 shifts shall have been spent at the working face on rock-breaking or winning minerals or work directly connected therewith, of which shifts, in the case of a mine, at least 25 shifts shall have been in a mine of the class to which such certificate is appropriate;

[Para. (b) substituted by GN R513 of 1 April 1977]

**28.40.7.3** An applicant for a provisional or permanent blasting certificate for fiery mines shall further satisfy the issuing authority that he has attended at least 75 per cent of the lectures and passed the prescribed examination on a course on gases and gas-testing based on a syllabus approved by the *Chief Inspector* and conducted by an institution recognised by the *Chief Inspector*.

[Reg. 28.40.7.3 amended by GN R94 of 15 January 1997]

**28.40.8.1** An applicant shall not be accepted as a candidate for examination for a provisional certificate for opencast mines or for works where no subterranean tunnel operations are in progress unless he has produced evidence satisfactory to the Principal Inspector of Mines that-

- (a) he has attained the age of 20 years; and
- (b) he has had at least 60 shifts of experience acceptable to the Principal Inspector of Mines.

[Reg. 28.40.8.1 amended by GN R94 of 15 January 1997]

**28.40.8.2** An applicant shall not be accepted as a candidate for examination for a permanent blasting certificate for open-cast mines or for works where no subterranean tunnel operations are in progress unless he has produced evidence satisfactory to the Principal Inspector of Mines that-

- (a) he has attained the age of 20 years; and
- (b) subject to regulation 28.41.3.2, he has had at least the required number of shifts of experience acceptable to the Principal Inspector of Mines.

[Para. (b) substituted by GN R513 of 1 April 1977]

[Reg. 28.40.8.2 amended by GN R94 of 15 January 1997]

**28.41.1** A blasting certificate shall not be issued unless the issuing authority has satisfied itself that, within the scope indicated in the syllabus for the examination drawn up in terms of regulation 28.6, the applicant is competent to conduct blasting operations and to perform the duties of a ganger or miner in terms of the Regulations. The issuing authority shall further satisfy itself that the sight and hearing of the applicant are adequate to enable him to carry out his work safely.

[Reg. 28.41.1 substituted by GN R367 of 27 February 1987]

**28.41.2** Any issuing authority, in any special case, may issue to a candidate a certificate limited in scope in accordance with rules framed in terms of regulation 28.6, provided such candidate has the requisite experience and qualifications and satisfies the issuing authority that he has sufficient knowledge of the responsibilities appropriate to his work.

**28.41.3** The number of qualifying shifts for a provisional blasting certificate shall not be less than indicated in regulations 28.41.3.1 and 28.41.3.2.

[Reg. 28.41.3 inserted by GN R513 of 1 April 1977]

**28.41.3.1 Provisional blasting certificate:**

(a) University students in mining	110 shifts	Blasting certificate valid for the mine.
(b) <ul style="list-style-type: none"> <li>i). Chamber of Mines Training College students</li> <li>ii). Learner officials</li> <li>iii). Learner miners attending a training course in mining approved by the <i>Chief Inspector</i></li> </ul>	110 shifts	Blasting certificate valid in training section only  Blasting certificate valid for the mine, but the holder to be under the supervision of a certificated ganger or miner..
(c) <ul style="list-style-type: none"> <li>i). Chamber of Mines Training College students</li> <li>ii). Learner officials</li> <li>iii). Learner miners attending a training course in mining approved by the <i>Chief Inspector</i></li> </ul>	154 shifts	But holder to be under the supervision of a certificated ganger or miner.
(d) Other learners	200 shifts	Blasting certificate valid for the mine, but holder to be under the supervision of a certificated ganger or miner.

[Reg. 28.41.3.1 inserted by GN R513 of 1 April 1977, amended by GN R1352 of 8 July 1988 and by GN R94 of 15 January 1997]

**28.41.3.2 Permanent blasting certificate:**

(a) University students in mining	200 shifts
(b) <ul style="list-style-type: none"><li>i). Chamber of Mines Training College students</li><li>ii). Learner officials</li><li>iii). Learner miners attending a training course in mining approved by the <i>Chief Inspector</i></li></ul>	312 shifts
(c) Other learners	400 shifts

[Reg. 28.41.3.2 inserted by GN R513 of 1 April 1977, amended by GN R1352 of 8 July 1988 and by GN R94 of 15 January 1997]

**Blasting certificate for scheduled mines**

**28.42.1** The issuing authority for blasting certificates for scheduled mines shall be a Commission of Examiners.

A blasting certificate for a scheduled mine shall be valid for a works where subterranean tunnel operations are in progress and for any mine other than a fiery mine and an opencast mine.

**Blasting certificate for fiery mines**

**28.43.1** The issuing authority for blasting certificates for fiery mines shall be a Commission of Examiners: Provided that a Principal Inspector of Mines may issue a provisional blasting certificate for a fiery mine.

A blasting certificate for a fiery mine shall be valid for a works where subterranean tunnels operations are in progress and for any mine other than a scheduled mine and an opencast mine.

[Reg. 28.43.1 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997]

### **Blasting certificate for opencast mines**

**28.44** The issuing authority for blasting certificates for opencast mines shall be the Principal Inspector of Mines in whose district the applicant is, or is to be, employed. Such certificates shall be valid only for opencast mines.

[Reg. 28.44 amended by GN R94 of 15 January 1997]

### **Blasting certificates for other mines including non-fiery coal mines**

**28.45.1** The issuing authority for blasting certificates for mines other than those referred to in regulations 28.42.1 and 28.43.1 and for works, is the Principal Inspector of Mines in whose region the applicant is, or is to be, employed.

[Reg. 28.45.1 amended by GN R94 of 15 January 1997]

**28.45.2** A certificate issued for such mines shall be valid for all mines other than scheduled mines, fiery mines and opencast mines.

**28.45.3** A certificate issued for works shall only be valid for the class of works for which the certificate is applicable.

[Reg. 28.45 substituted by GN R3083 of 20 December 1991]

### **Lampman's certificate**

**28.46.1** Every application to sit for the examination for a lampman's certificate shall be submitted to the Principal Inspector of Mines in whose region the applicant is, or is to be, employed, which Principal Inspector of Mines who shall be the issuing authority shall conduct such examination as he may deem necessary.

[Reg. 28.46.1 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997]

**28.46.2** Such application shall bear uncancelled revenue stamps to the value indicated in regulation 28.10.

### **Onsetter's certificate**

**28.47.1.1** Every application for examination for an onsetter's certificate shall be submitted to the Principal Inspector of Mines in whose region the applicant is, or is to be, employed.

[Reg. 28.47.1.1 amended by GN R94 of 15 January 1997]

**28.47.1.2** Uncancelled revenue stamps to the value indicated in regulation 28.10 shall be affixed to the application form.

[Reg. 28.47.1 substituted by GN R3083 of 20 December 1991]

**28.47.2** An applicant shall not be accepted as a candidate for examination unless-

- (a) he has attained the age of 18 years; and
- (b) he has had at least 12 shifts of experience acceptable to the Principal Inspector of Mines;

[Para. (b) amended by GN R94 of 15 January 1997]

- (c) he submits a statement by the manager under whom he is working at the time if his application, specifying whether the applicant is a moderate user of alcohol, whether he is generally of good conduct and that he is a fit and proper person to be the holder of an onsetter's certificate.

[Reg. 28.47.2 amended by GN R1352 of 8 July 1988]

**28.47.3** An onsetter's certificate shall be issued by a Principal Inspector of Mines.

[Reg. 28.47.3 amended by GN R94 of 15 January 1997]

**28.47.4** A certificate shall not be issued unless the applicant has been examined by an officer in the service of the Department who is a certificated mine manager or a certificated mechanical or electrical engineer (mines), assisted by two persons, one of whom shall be the person appointed in terms of section 31 of the Act or regulation 2.6.1 or regulation 2.14.1, and the other appointed in terms of regulation 2.13.1 or regulation 2.13.3.

[Reg. 28.47.4 amended by GN R3083 of 20 December 1991]

**28.47.5** A certificate shall not be issued unless the Principal Inspector of Mines is satisfied that, within the scope indicated in the syllabus for examination drawn up in terms of regulation 28.6, the applicant is competent to perform the duties of an onsetter, has sufficient knowledge of the shaft operations which he has to control, of the signals to be given in connection with such operations and of the regulations appertaining to the duties of banksmen and onsetters.

[Reg. 28.47.5 amended by GN R94 of 15 January 1997]

**28.47.6** Subject to the provisions of regulation 16.90, an onsetter's certificate shall be valid for all mines.

**28.47.7** An onsetter's certificate issued prior to the date of promulgation of these Regulations shall retain its validity for such time as the holder thereof is employed at the mine in respect of which such certificate was issued. Subject to the provisions of regulation 28.2.1, it may be exchanged without examination for a certificate issued in terms of this regulation, provided the holder submits an application bearing uncancelled revenue stamps to the value of 50 cents.

## **Additional requirements for admission**

**28.48.1** The *Chief Inspector* shall not accept any application in respect of a winding-engine driver's certificate, locomotive-engine driver's certificate, blasting certificate or onsetter's certificate unless the manager concerned, in addition to the requirements of regulations 28.26.1, 28.30, 28.40.1 and 28.47.2, submits acceptable written evidence-

- (a) that the applicant possesses the minimum educational qualification as recommended by the relevant advisory committee and as accepted by the Minister;
- (b) that the applicant is medically fit to practice the occupation for which the certificate is required; and
- (c) that the applicant's ability to communicate both orally and in writing with his colleagues in one of the official languages, is of an acceptable standard.

[Reg. 28.48.1 added by GN R1352 of 8 July 1988, amended by GN R3083 of 20 December 1991 and amended by GN R94 of 15 January 1997]

**28.48.2** If the *Chief Inspector* is satisfied that the applicant complies with the requirements of regulation 28.48.1 he shall, having regard to the proven labour needs of the mines and works and the advice of the relevant advisory committee, issue to the applicant a certificate as proof of compliance with the requirements for admission as a candidate for the relevant certificate of competency and the application shall thereafter be dealt with in accordance with the further regulations in this chapter.

[Reg. 28.48.2 added by GN R1352 of 8 July 1988, substituted by GN R1263 of 7 June 1991 and amended by GN R94 of 15 January 1997]

## **Advisory committees**

**28.49.1** The Minister shall in respect of certificates of competency mentioned in regulation 28.48.1, establish advisory committees to advise him from time to time in respect of the certificate of competency for which it has been established, regarding-

- (a) the minimum educational qualification and any other requirements with which a person must comply to be accepted as a candidate for the acquisition of that certificate of competency; and
- (b) the need for holders of that certificate of competency and the number of applications for the acquisition of such certificates which may be accepted from time to time, having regard to the proven labour needs.

[Reg. 28.49.1 added by GN R1352 of 8 July 1988 and substituted by GN R1263 of 7 June 1991]

**28.49.2** An advisory committee established in respect of the occupations in mines and works for which a valid winding-engine driver's certificate is required consists of-

- (a) the deputy director-general referred to in section 2(2) of the Act who shall ex officio be the chairman of the advisory committee;

[Para. (a) amended by GN R3083 of 20 December 1991]

- (b) a chief director or director in the service of the Department with specialised knowledge of machinery designated by the Director-General who shall act as chairman if the chairman is for any reason absent;

[Para. (b) amended by GN R3083 of 20 December 1991]

- (c) an officer of the Department of Manpower designated by the Director-General: Manpower;
- (d) two persons appointed by the Minister as members of the advisory committee from persons whose names have at the written request of the *Chief Inspector* been submitted within thirty days after the date of that request by an employee's organization or by employee's organizations representing the holders of winding-engine driver's certificates employed at mines and works;

[Para. (d) amended by GN R94 of 15 January 1997]

- (e) two persons appointed by the Minister as members of the advisory committee from persons whose names have at the request of the *Chief Inspector* been submitted within thirty days after the date of that request, by an employer's organization or by employer's organizations representing the owners of mines and works; and

[Para. (e) amended by GN R94 of 15 January 1997]

- (f) two other persons appointed by the Minister as members of the advisory committee and who, in the opinion of the *Chief Inspector* have a direct interest in the practising of the occupation of winding-engine driver.

[Para. (f) amended by GN R94 of 15 January 1997]

[Reg. 28.49.2 added by GN R1352 of 8 July 1988]

**28.49.3** An advisory committee in respect of the occupations in mines and works for which a valid locomotive-engine driver's certificate is required consists of-

- (a) the deputy director-general referred to in section 2(2) of the Act who shall ex officio be the chairman of the advisory committee;

[Para. (a) amended by GN R3083 of 20 December 1991]

- (b) a chief director or director in the service of the Department with specialised knowledge of machinery designated by the Director-General who shall act as chairman if the chairman is for any reason absent;

[Para. (b) amended by GN R3083 of 20 December 1991]

- (c) an officer of the Department of Manpower designated by the Director-General: Manpower;
- (d) two persons appointed by the Minister as members of the advisory committee from persons whose names have at the written request of the *Chief Inspector* been submitted within thirty days after the date of that request by an employee's organization or by employee's organizations representing the holders of locomotive-engine driver's certificates employed at mines and works;

[Para. (d) amended by GN R94 of 15 January 1997]

- (e) two persons appointed by the Minister as members of the advisory committee from persons whose names have at the request of the *Chief Inspector* been submitted within thirty days after the date of that request, by an employer's organization or by employer's organizations representing the owners of mines and works; and

[Para. (e) amended by GN R94 of 15 January 1997]

- (f) two other persons appointed by the Minister as members of the advisory committee and who, in the opinion of the *Chief Inspector* have a direct interest in the practising of the occupation of locomotive-engine driver.

[Para. (f) amended by GN R94 of 15 January 1997]

[Reg. 28.49.3 added by GN R1352 of 8 July 1988]

**28.49.4** An advisory committee established in respect of the occupations in mines and works for which a valid blasting certificate is required consists of-

- (a) the deputy director-general referred to in section 2(2) of the Act who shall ex officio be the chairman of the advisory committee;

[Para. (a) amended by GN R3083 of 20 December 1991]

- (b) a chief director or director in the service of the Department with specialised knowledge in mining designated by the Director-General who shall act as chairman if the chairman is for any reason absent;

[Para. (b) amended by GN R3083 of 20 December 1991]

- (c) an officer of the Department of Manpower designated by the Director-General: Manpower;
- (d) two persons appointed by the Minister as members of the advisory committee from persons whose names have at the written request of the *Chief Inspector* been submitted within thirty days after the date of that request by an employee's organization or by employee's organizations representing the holders of blasting certificates employed at mines and works;

[Para. (d) amended by GN R94 of 15 January 1997]

- (e) two persons appointed by the Minister as members of the advisory committee from persons whose names have at the request of the *Chief Inspector* been submitted within thirty days after the date of that request, by an employer's organization or by employer's organizations representing the owners of mines and works; and

[Para. (e) amended by GN R94 of 15 January 1997]

- (f) two other persons appointed by the Minister as members of the advisory committee and who, in the opinion of the *Chief Inspector* have a direct interest in the practising of the occupation where a blasting certificate is required.

[Para. (f) amended by GN R94 of 15 January 1997]

[Reg. 28.49.4 added by GN R1352 of 8 July 1988]

**28.49.5** An advisory committee established in respect of the occupations in mines and works for which a valid onsetter's certificate is required consists of-

- (a) the deputy director-general referred to in section 2(2) of the Act who shall *ex officio* be the chairman of the advisory committee;

[Para. (a) amended by GN R3083 of 20 December 1991]

- (b) a chief director or director in the service of the Department designated by the Director-General who shall act as chairman if the chairman is for any reason absent;

[Para. (b) amended by GN R3083 of 20 December 1991]

- (c) an officer of the Department of Manpower designated by the Director-General: Manpower;

- (d) two persons appointed by the Minister as members of the advisory committee from persons whose names have at the written request of the *Chief Inspector* been submitted within thirty days after the date of that request by an employee's organization or by employee's organizations representing the holders of onsetter's certificates employed at mines and works;

[Para. (d) amended by GN R94 of 15 January 1997]

- (e) two persons appointed by the Minister as members of the advisory committee from persons whose names have at the request of the *Chief Inspector* been submitted within thirty days after the date of that request, by an employer's organization or by employer's organizations representing the owners of mines and works; and

[Para. (e) amended by GN R94 of 15 January 1997]

- (f) two other persons appointed by the Minister as members of the advisory committee and who, in the opinion of the *Chief Inspector* have a direct interest in the practising of the occupation of onsetter.

[Para. (f) amended by GN R94 of 15 January 1997]

[Reg. 28.49.5 added by GN R1352 of 8 July 1988]

**28.49.6.1** For each member appointed under paragraph (d), (e) and (f) of regulations 28.29.2, 28.49.3, 28.49.4 and 28.49.5 there shall be one or more alternate members and an alternate member or alternate members to a member shall be appointed in the same manner as such member.

[Reg. 28.49.6.1 added by GN R1352 of 8 July 1988]

**28.49.6.2** A member or alternate member referred to in regulation 28.49.6.1 who is not in the full-time employment of the State shall be appointed-

- (a) on such conditions of service as the Minister in consultation with the Minister of Finance may determine; and
- (b) for such period, but not exceeding three years, as the Minister may determine: Provided that a member or an alternate member whose period of office has terminated, may be reappointed: Provided further that the Minister may, if in his opinion good reason exists therefor, at any time terminate the period of office of such member.

[Reg. 28.49.6.2 added by GN R1352 of 8 July 1988]

## **Exemptions**

**28.50** If the Minister is satisfied that special circumstances, justifying the granting of relief, exist with regard to any mine or works, he may in writing grant exemption from any provision of this chapter to the manager of such mine or works subject to such conditions (if any) as he may deem fit.

[Reg. 28.50 added by GN R1352 of 8 July 1988]

## **Transitional period**

**28.51.1** and **28.51.2 ...**

[Regs. 28.51.1 and 28.51.2 added by GN R1352 of 8 July 1988 and deleted by GN R1263 of 7 June 1991]

# **CHAPTER 29**

## **SUSPENSION AND CANCELLATION OF CERTIFICATES OF COMPETENCY**

**29.1.1** If the *Chief Inspector* is from information laid before him that the holder of a mine manager's, mechanical or electrical engineer's, mine surveyor's mine assayer's or mine overseer's certificate issued in accordance with these Regulations or any amendments thereof or heretofore issued under any law in force in any province of the Republic, has been guilty of gross negligence or misconduct or non-compliance with these Regulations, he may forthwith suspend or cancel such certificate or may submit the matter for inquiry and report to the respective commission of examiners appointed under the said regulations, and may, on the recommendation of such commission, suspend or cancel such certificate, in which case the holder thereof may appeal to the Minister, who shall, if the matter has not been reported on by the commission of examiners, submit it for inquiry and report to such person or persons designated by him: Provided that all suspended or cancelled certificates, including an engine-driver's or boiler attendant's certificate, shall be returned by the holders to the Director-General within two weeks of the date of suspension or cancellation.

[Reg. 29.1.1 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997]

**29.1.2** The *Chief Inspector* may cancel and retain any certificate issued in accordance with these Regulations or any subsequent amendments thereof, or heretofore issued under any law in force in any province of the Republic if, in his opinion, such certificate is being fraudulently or improperly used.

[Reg. 29.1.2 amended by GN R94 of 15 January 1997]

**29.2.1** If at any time a winding-engine driver, stationary-engine driver or boiler attendant, being the holder of a certificate issued in accordance with these Regulations or any amendment thereof or heretofore issued under any law in force in any province of the Republic, is, in the opinion of any Principal Inspector of Mines, be guilty of gross negligence in the execution of his duties, or suffer from any infirmity, likely to be detrimental to the efficient discharge of his duties, such Principal Inspector of Mines may suspend such certificate or recommend the same to the *Chief Inspector* for cancellation or both.

Cancellation and/or suspension of a certificate of competency is only considered in the case of mental or physical disability or, in cases of gross inattention to duty, gross negligence. In most cases the courts have sufficient power to deal with very serious contraventions without having to resort to suspension or cancellation of a certificate. It is recommended that S v Grobler 1974 (2) SA 663 (T) be read carefully, and it will be seen that the magistrate detailed the negligence of the accused, a winding-engine driver, and stated that the negligence of the accused was not the only cause of the death of the persons concerned, but it was the proximate cause. However, when Theron J commented on the magistrate's reasons, he noted that when it came to sentence, the question of gross negligence was considered and used in imposing sentence.

The court found that the accused had been guilty of negligence, but not of gross negligence and the sentence was amended accordingly.

The cancellation or suspension of the certificate was not considered in this case, but the degree of negligence which can be considered gross negligence is well illustrated.

Cancellation or suspension of a certificate is only considered to be necessary when all other means of sanction are insufficient.

[Reg. 29.2.1 amended by GN R1189 of 8 June 1979, by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997]

**29.2.2** The winding-engine driver, locomotive-engine driver, stationary-engine driver or boiler attendant shall have the right to appeal from such decision to the *Chief Inspector* as in the manner hereafter provided.

[Reg. 29.2.2 amended by GN R94 of 15 January 1997]

**29.2.3** The Principal Inspector of Mines shall immediately report such suspension or recommendation to the *Chief Inspector* who, on receipt of such appeal as aforesaid, may submit the matter for inquiry and report to the commission of examiners appointed under the said regulations.

[Reg. 29.2.3 amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997]

**29.2.4** The *Chief Inspector* may confirm such suspension or cancel such certificate or take such other action as may seem to him desirable under the circumstances.

[Reg. 29.2.4 amended by GN R94 of 15 January 1997]

**29.2.5** Any suspension, if confirmed by the *Chief Inspector*, may be noted on the certificate.

[Reg. 29.2.5 amended by GN R94 of 15 January 1997]

**29.3** If the holder of a blasting certificate, an onsetter's certificate or a lampman's certificate issued in accordance with these Regulations is, in the opinion of any Principal Inspector of Mines guilty of misconduct or gross negligence in the execution of his duties, or suffers from any infirmity likely to be detrimental to the efficient discharge of his duties, such Principal Inspector of Mines may immediately suspend or cancel such certificate, in which case the holder of such certificate may appeal from such decision to the *Chief Inspector* in a manner hereinafter stipulated, and the *Chief Inspector* shall either personally or by deputy decide such appeal.

[Reg. 29.3.1 renumbered to 29.3 by GN R2101 of 15 November 1974, amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997]

**29.3.2 ...**

[Reg. 29.3.2 deleted by GN R2101 of 15 November 1974]

**29.4** Any person wishing to appeal under any regulation contained in this chapter shall proceed with his appeal within 30 days after receiving notice that his certificate has been suspended or cancelled or recommended for cancellation, as the case may be, by filing with the Minister or with the *Chief Inspector* a written statement setting out the grounds upon which the appeal is based.

[Reg. 29.4 amended by GN R1189 of 8 June 1979 and by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997]

## **CHAPTER 30 ...**

[Chapter 30 inserted by GN R2227 of 31 October 1980, amended by GN R3083 of 20 December 1991 and by GN R94 of 15 January 1997 and repealed by GN R91 of 1 February 2008.]

## CHAPTER 31

### OFFSHORE INSTALLATIONS

[Chapter 31 added by GN R1644 of 1990 and repealed by GN R1015 of 2010.]

#### 31.1 In this chapter-

- 'accommodation'** means any dining-room, sleeping quarters, kitchen, recreation room, sick-bay, laundry, linen-room and any store-room or office integral with and used in connection with such accommodation and including any corridor giving access to any of these rooms;
- 'Certifying Authority'** means any person, committee, society or other body of persons approved in accordance with regulation 31.3.1;
- 'Certificate of Fitness'** means a certificate issued under regulation 31.3.2;
- 'fixed installation'** means an offshore installation which is not a mobile installation;
- 'life-saving appliance'** means any lifebuoy, life-jacket, survival craft, life-raft or other equipment to be provided under this chapter;
- 'mobile installation'** means an offshore installation which can be moved from place to place without dismantling or modification to its primary structure, whether or not it has its own motive power;
- 'natural oil'** means any combustible gas or liquid or solid hydrocarbon compound existing in a natural condition in the earth's crust, but does not include coal;
- 'normally enclosed motor-propelled survival craft'** means a self-propelled survival craft of rigid construction specially designed and constructed for carrying persons safely through fire and water;
- 'offshore installation'** means an offshore structure supported on the sea-bed or a vessel used at sea in connection with prospecting for or the mining of natural oil and on which persons are normally present;
- 'owner'** means the owner of an offshore installation and includes any lessee or contractor thereof;
- 'pipeline'** means any pipeline between a fixed point ashore and an offshore installation, and a pipeline between an offshore installation and another offshore installation which is intended to be used to convey natural oil and which forms an integral part of the offshore installation;
- 'primary structure'** means all structural components of an offshore installation, the failure of which would seriously endanger the safety of the installation;
- 31.2.1** The *Chief Inspector* may grant an Offshore Installation Permit to use an offshore installation in the sea as defined in section 1 of the Sea-shore Act, 1935 (Act 21 of 1935), and on the continental shelf referred to in section 7 of the Territorial Waters Act, 1963, (Act 87 of 1963), subject to conditions he may specify.

[Reg. 31.2.1 amended by GN R94 of 15 January 1997.]

**31.2.2** Every application for the use of an offshore installation shall be made by the owner to the Principal Inspector of Mines and shall, where possible, be accompanied by a Certificate of Fitness granted by a Certifying Authority.

[Reg. 31.2.2 amended by GN R94 of 15 January 1997.]

**31.3.1** The *Chief Inspector* may approve any Certifying Authority to conduct or to cause to be conducted surveys and assessments under these Regulations and to certify offshore installations as fit for any of the purposes referred to in these Regulations.

[Reg. 31.3.1 amended by GN R94 of 15 January 1997.]

**31.3.2** A Certifying Authority may, if it is satisfied that it is proper to do so, issue a Certificate of Fitness, certifying that the offshore installation concerned is fit to be established or stationed in the said waters.

**31.3.3** A Certificate of Fitness shall contain the following information:

- (a) The name of the Certifying Authority.
- (b) The Certificate of Fitness identification number.
- (c) The name or emblem of the offshore installation.
- (d) A description of the offshore installation.
- (e) The name of the owner.
- (f) A declaration that the offshore installation is fit to be established or stationed and maintained in the said waters.
- (g) The period for which the Certificate of Fitness is valid.
- (h) Special conditions of validity.
- (i) The date of issue.
- (j) The name and signature of the person designated to sign on behalf of the Certifying Authority.

**31.4** After the date of coming into operation of these Regulations no-

- (a) fixed installation shall be established;
- (b) mobile installation shall be brought into or stationed; or
- (c) fixed or mobile installations shall be maintained, in the sea or on the continental shelf without a Certificate of Fitness.

**31.5** On or after the date of coming into operation of these Regulations no mobile installation shall be moved unless, prior to moving, the owner has obtained from a competent person a report on the environmental factors at the new station and the owner has reasonable grounds for believing that the offshore installation is capable of withstanding the factors referred to in regulation 31.12.

**31.6** One copy of the Offshore Installation Permit shall be kept posted on board the offshore installation in such a position that it can be conveniently read.

**31.7** If the Certifying Authority is not satisfied that a Certificate of Fitness can be issued, the Certifying Authority shall notify the owner in writing and supply him with the reasons for the conclusion and shall at the same time send a copy of the said notification to the Principal Inspector of Mines.

[Reg. 31.7 amended by GN R94 of 15 January 1997.]

**31.8** If the Certifying Authority is of the opinion that the offshore installation has become unsafe, it shall revoke the Certificate of Fitness issued in respect thereof and notify the Principal Inspector of Mines by the quickest means available and supply him with the reasons for forming the opinion and at the same time send a copy of that notification to the owner.

[Reg. 31.8 amended by GN R94 of 15 January 1997.]

**31.9** The *Chief Inspector* may revoke a Certificate of Fitness if-

- (a) he is satisfied that, in the interest of safety and *health*, that the offshore installation is no longer fit to be maintained; or
- (b) there has been a failure to comply with the requirements of any regulation which may be applicable.

[Reg. 31.9 amended by GN R94 of 15 January 1997.]

**31.10** A Certificate of Fitness shall be valid for such period as the Certifying Authority may determine.

**31.11** An official, as contemplated in section 51 of the Minerals Act, 1991 (Act 50 of 1991), may carry out specific or periodic tests or inspections of any offshore installation.

**31.12** Every offshore installation shall be capable of withstanding-

- (a) any combination of-
  - (i). meteorological and oceanological conditions; and
  - (ii). properties and configuration of sea bed and subsoil, to which the offshore installation may foreseeably be subjected at the place at which it is, or intended to be located; and
- (b) any foreseeable combination of forces arising from-
  - (i). the maximum weight of the offshore installation;
  - (ii). the buoyancy of any structural element which may be, or may become, submerged in water;
  - (iii). the process of moving the offshore installation or any part thereof from place to place;
  - (iv). environmental factors;

- (v). the inertia of structural and other masses when the offshore installation is constrained to move under the influence of the forces exerted by environmental factors;
- (vi). the operation of equipment and all functional activity associated with the offshore installation;
- (vii). ships berthing and departing, aircraft landing and taking off, and any other operations associated with the transfer of persons, stores and equipment; and
- (viii). (in the case of a mobile installation) changes of trim during transition between the floating modules and the sea bed and subsoil supported modules, or a combination of the two, together with any impact or impulse forces developed as a result of the sudden application of all or any of the aforesaid forces.

**31.13** The parts of the offshore installation which either sometimes or at all times are intended to be in direct contact with and transmitting loads to the sea bed and subsoil shall be capable of maintaining the integrity of the structure of the offshore installation and maintaining it in a safe and stable condition.

**31.14** Every mobile installation shall be constructed so that-

- (a) under any foreseeable combination of forces its weight and buoyancy shall operate to induce the offshore installation to maintain, or return to, an upright position; and
- (b) any part thereof intended to remain buoyant on immersion in water shall be subdivided into watertight compartments strong enough to withstand any hydrostatic pressure to which that part may foreseeably be subjected.

**31.15** In respect of any offshore installation-

- (a) stresses shall be calculated either by means of mathematical analysis of the forces acting on the structure of the offshore installation in a manner approved by the *Chief Inspector* or by means of established rules for the design of such an offshore installation approved by the *Chief Inspector*;

[Para. (a) amended by GN R94 of 15 January 1997]

- (b) factors of safety and maximum working stresses shall be in accordance with recognised standards appropriate to the material concerned and the conditions under which the material is to be used;
- (c) the design of the joints or other structural details shall be such as to minimise stress concentrations; and
- (d) deflections of the structural components shall not be such as to affect the safety of the offshore installation.

**31.17** The manager shall appoint an offshore installation manager who shall be responsible for the safety of the said offshore installation and the safety, *health* and welfare of all persons working on or working from that installation.

**31.18.1** The owner shall compile, or cause to be compiled, an operations manual for the information, guidance and instruction of the manager for securing the safety of the offshore installation in respect of a-

- (a) fixed installation for when established at a station; and
- (b) mobile installation for when established at a station and the seaworthiness and stability of the offshore installation when moving to or from, or being located on, or removed from, or maintained at a station.

**31.18.2** A copy of the operations manual, referred to in regulation 31.18.1, shall be provided to the Principal Inspector of Mines within 14 days after being brought into use.

[Reg. 31.18.2 amended by GN R94 of 15 January 1997]

**31.18.3** No alteration shall be made to the operations manual without the written consent of the Principal Inspector of Mines.

[Reg. 31.18.3 amended by GN R94 of 15 January 1997]

**31.19**

- (a) The manager shall provide a record system for each offshore installation in which shall be recorded details of every major repair, replacement, alteration or dismantlement likely to impair the safety, strength, stability and, in the case of a mobile installation, the seaworthiness thereof.
- (b) These notes shall be scrutinized by the offshore installation manager within two days after such recording has been made.

**31.20** Every pipeline intended to be used to convey natural oil shall be provided with an emergency shutdown valve either on the sea-bed or in such a position as to survive the conflagration of the said offshore installation.

**31.21** Every helicopter landing area forming part of an offshore installation shall be-

- (a) located in a position readily accessible from the accommodation of the offshore installation or from any other area of the offshore installation likely to be regularly manned;
- (b) large enough, and have sufficient clear approach and departure paths, to enable any helicopter intended to use the landing area to land thereon and take off safely from it in any wind and weather conditions that permit helicopter flights;
- (c) strong enough to withstand any landing by any helicopter intended to be used; and

- (d) provided with-
- (i). a non-slip surface for landing;
  - (ii). suitable tie-down points;
  - (iii). markings and lighting sufficient to make possible easy identification of the landing area by day or by night;
  - (iv). suitable safety nets along the sides thereof to protect persons from falling from it;
  - (v). one or more dry powder fire extinguishers having in aggregate a capacity of not less than 45 kg; and
  - (vi). either one or more-
    - (aa) carbon dioxide fire extinguishers having in aggregate a capacity of not less than 18 kg; or
    - (bb) halogenated hydrocarbon fire extinguishers having in aggregate a capacity of not less than 12 kg.

**31.22** If an offshore installation is provided with accommodation, such accommodation shall be-

- (a) placed remote from the offshore installation or, if integral with the offshore installation it must be separated from the hazardous area by sufficient space, effective explosion-proof doors and insulation to afford protection to persons therein in case of fire, explosion or other danger;
- (b) constructed so as to afford persons on the offshore installation protection from the blast of an explosion, and from the weather, heat, noxious gases, noise and vibration;
- (c) sufficient in area in accordance with the accepted ergonomic standards to meet the needs of the maximum number of persons which may be on board the offshore installation at any time; and
- (d) adequately equipped for the number of persons that normally operate the offshore installation in respect of sleeping facilities, food and water storage, food preparation and dining rooms and sanitary and recreation requirements.

**31.23** Every offshore installation shall be provided with-

- (a) ventilation, heating and cooling systems capable of maintaining a moderate non-injurious atmosphere in all areas used for accommodation and all other enclosed areas manned;
- (b) lighting throughout sufficient to ensure the safety of persons thereon and so arranged that the operational control areas, escape routes and embarkation areas remain illuminated in both normal and emergency conditions;
- (c) normally totally enclosed motor-propelled survival craft having a sufficient capacity to accommodate safely on board the number of persons on the offshore installation;

- (d) survival craft having sufficient capacity to accommodate safely on board half the number of persons on the offshore installation;
- (e) additional survival craft or life-rafts having, together with the survival craft provided under regulation 31.23(d), sufficient capacity to accommodate safely on board twice the number of persons on the offshore installation;
- (f) at least as many life-jackets as 1,5 times the number of persons on the offshore installation;
- (g) suitable and sufficient means for persons to evacuate it safely or for persons to descend safely from the offshore installation to the water in an emergency;
- (h) lifebuoys-
  - (i). installed in such numbers as required by the Principal Inspector of Mines and stowed in such places that at least one is readily accessible from any part of a deck of the offshore installation from which a person is liable to fall into the water; and

[Subpara. (i) amended by GN R94 of 15 January 1997.]

- (ii). which shall have attached to them a self-igniting light inextinguishable in water and lit by a battery;
- (i) survival craft, life-rafts, lifebuoys and life-jackets which shall be-
  - (i). of a type approved by the *Chief Inspector* and of a class or description suitable for that offshore installation;

[Subpara. (i) amended by GN R94 of 15 January 1997.]

- (ii). properly constructed of suitable materials having regard to their life-saving function and the circumstances in which they may be used; and
- (iii). of such a colour as will make them conspicuous when in use;
- (j) a general alarm system capable of raising the alarm by signals audible and visible at every part of the offshore installation to which persons have access;
- (k) a public address system capable of being heard distinctly at all parts of the offshore installation to which persons have access and where oral communication is practicable;
- (l) an automatically actuated fire detection system;
- (m) a manually actuated fire alarm system by which the presence of a fire in any part of the offshore installation to which persons have access can be indicated both audibly and visibly to a person at the control point on the offshore installation;
- (n) an automatic flammable gas detection system capable of monitoring continuously every part of an offshore installation in which flammable gas may accumulate;

- (o) a water-main system by means of which water can be supplied to any part of the offshore installation and which shall be-
  - (i). connected to at least two pumps situated at different parts of the offshore installation;
  - (ii). capable, when supplied by any pump, of maintaining a supply of water to any part of the offshore installation at a pressure sufficient for fire-fighting by means of handheld hoses; and
  - (iii). equipped with an independent power supply for the pumps;
- (p) a water deluge system or water monitors, or both, by means of which any part of the offshore installation containing equipment used for storing, conveying or processing natural oil can be protected in the event of fire, and such water deluge system or water monitors shall be connected to a separate main, which shall be-
  - (i). connected to at least two pumps, which when activated shall be capable of operating automatically for 12 hours; and
  - (ii). capable of maintaining a supply of water at a pressure sufficient to enable the system or the monitors to operate sufficiently when supplied by either pump, if only one is connected;
- (q) an automatic sprinkler system capable of-
  - (i). detecting the presence of a fire in any part of the accommodation;
  - (ii). operating automatically to protect any part of the accommodation in which a fire is present; and
  - (iii). indicating both audibly and visibly that a sprinkler has come into operation at the control point of the offshore installation;
- (r) fire extinguishers installed in such numbers and in such places that at least one fire extinguisher is readily accessible from any part of the offshore installation; and
- (s) sufficient sets of fire-fighting equipment as approved by the Principal Inspector of Mines.

[Para. (s) amended by GN R94 of 15 January 1997.]

**31.24 On every offshore installation-**

- (a) every general area which is regularly manned shall have at least two separate escape routes situated as far apart as practicable and leading to abandonment stations situated on the helicopter landing deck, on the survival craft embarkation deck, at sea-level, or at any combinations of such locations;
- (b) every such escape route and abandonment station shall be readily accessible and unobstructed;
- (c) must be provided where practicable with escape routes-
  - (i). leading to an upper level in the form of ramps or stairways; and

- (ii). leading to a lower level shall be provided in the form of ramps, stairways or chutes; and
- (d) additional to and independent of the main source of electrical power, emergency equipment shall be provided with sufficient capacity to supply electricity to those services necessary for the safety of the offshore installation and of the persons thereon.

**31.25** Every normally totally enclosed motor-propelled survival craft shall be provided with devices whereby the craft may be-

- (a) lowered into the water by one person on the craft; and
- (b) disengaged from its launching apparatus by one person inside the craft when lowered down.

**31.26** There shall be displayed inside every normally totally enclosed motor-propelled survival craft clear instructions in both official languages for disengaging the craft from its launching apparatus and for operating the craft.

**31.27** Every normally totally enclosed motor-propelled survival craft shall be provided with-

- (a) a radio of a type and capacity approved by the *Chief Inspector*; and

[Para. (a) amended by GN R94 of 15 January 1997.]

- (b) a set of tools and spare parts for repairing each type of engine installed in such craft.

**31.28** A survival craft or life-raft shall be-

- (a) clearly and permanently marked with the name or emblem of the offshore installation; and
- (b) equipped with-
  - (i). a waterproof electric hand lamp suitable for signalling;
  - (ii). a sufficient supply of drinking water, having regard to the maximum number of persons the survival craft is designed to accommodate, safely kept in suitable containers; and
  - (iii). a suitable first-aid outfit having regard to the number of persons the survival craft is designed to accommodate.

**31.29** Life-saving appliances shall at all times be available for immediate use, and shall be protected from damage.

**31.30** Fire-fighting equipment on an offshore installation shall be approved by the *Chief Inspector*.

[Reg. 31.30 amended by GN R94 of 15 January 1997.]

**31.31** The control point on an offshore installation and every place on an offshore installation which contains-

- (a) an internal combustion engine having in aggregate a power of 750 kW or more; and
- (b) an oil or gas-fired boiler, heater or incinerator having a thermal rating of 75 kW or more, shall be provided with a fixed fire extinguishing system.

## CHAPTER 32

### APPLICATION FEES

[Chapter 32 added by GN R3083 of 20 December 1991.]

**32.1** Application fees payable in terms of the Act shall be as follows:

In relation to-

- (a) a prospecting permit or renewal thereof: R20.00;
- (b) a mining permit: R50.00;
- (c) a mining licence: R100.00;
- (d) the lodging of an appeal: R200.00;
- (e) the supply of copies of documents: R0,15 per page with a minimum of R50.00 per document;
- (f) the division of mineral rights: R20.00 per application;
- (g) permission referred to in section 8(1): R20.00;
- (h) consent or a certificate referred to in section 17(1)(i) or (ii) or 6(a)(aa) or (bb): R20.00;
- (i) cancellation referred to in section 48(3)(b)(i): R20.00.

**32.2** The fees prescribed in this chapter shall be paid when the application or appeal concerned is lodged and shall not be refundable: Provided that the fee paid in respect of an appeal shall be refunded to the applicant if his appeal is upheld.

## CHAPTER 33

### SKETCH PLANS

[Chapter 33 added by GN R3083 of 20 December 1991.]

**33.1** Sketch plans which are to be lodged in terms of section 9(5)(b) of the Act shall-

- (a) indicate-
  - (i). the north point;
  - (ii). the scale to which the sketch plan has been drawn;
  - (iii). the name, number and situation of the farm on which the mining area is situated; and

- (iv). in relation to the farm boundaries and survey points-
  - (aa) the size and shape of the proposed mining area;
  - (bb) the boundaries of the land comprising the subject of the application for the mining authorisation concerned;
  - (cc) the lay-out of the proposed mining operations;
  - (dd) surface structures; and
  - (ee) the topography of the immediate vicinity;
- (b) be signed and dated by the applicant for the mining authorisation concerned;  
and
- (c) be drawn up in such form and to such scale as may be required by the Director:  
Mineral Development.

[Para. (c) amended by GN R847 of 21 June 1997]

## CHAPTER 34

### FORMS

[Chapter 34 added by GN R3083 of 20 December 1991]

#### 34.1 The following forms are prescribed for use under the Act:

Form 1

#### APPLICATION FOR PROSPECTING PERMIT

(Minerals Act, 1991: Section 6)

The Director: Mineral Development

- 1 Full Name of Applicant .....
- 2 Identity number (in the case of a person other than a natural person the registration number, where applicable, must be furnished) .....
- 3 Postal Address ..... Telephone number .....
- 4 (a) Registered name of land (farm and subdivision) on which you propose to prospect or on which the tailings are situated:  
.....  
.....
- (b) Magisterial District: .....
- 5 Mineral for which you propose to prospect: .....
- 6 (a) Name of the holder of the right to the said mineral in respect of the land and tailings concerned:  
.....
- The original or a certified copy of the title deed (deed of transfer, certificate of mineral rights, mining right, etc.) by virtue of which the said right is held must be attached.
- (b) If you are not the holder to the right of the said mineral, the written consent of such holder, wherein he grants you permission to prospect for the said mineral on your own account for the said mineral in respect of the land or tailings concerned, must be attached hereto.
- 7 The application must also be accompanied by particulars of the manner in which you intend to prospect and rehabilitate disturbances of the surface which may be caused by your prospecting operations.
- 8 An amount of R20.00, being the application fee prescribed in regulation 32(1)(a), must accompany this application.

.....  
SIGNATURE OF APPLICANT

Date .....

[Form 1 inserted by GN R3083 of 20 December 1991 and amended by GN R847 of 21 June 1997.]

Form 2  
APPLICATION FOR MINING AUTHORIZATION  
(Minerals Act, 1991: Section 9)

The Director: Mineral Development

1 Full Name of Applicant .....

2 Identity number (in the case of a person other than a natural person the registration number, where applicable, must be furnished): .....

3 Postal Address ..... Telephone number .....

(a) Registered name of land (farm and subdivision) on which you propose to mine or on which the tailings are situated: .....

(b) Magisterial District: .....

5 Mineral which you propose to mine: .....

6 (a) Name of the holder of the right to the said mineral in respect of the land and tailings concerned: .....

The original or a certified copy of the title deed (deed of transfer, certificate of mineral rights, mining right, etc.) by virtue of which the said right is held must be attached.

(b) If you are not the holder to the right of the said mineral, the written consent of such holder, wherein he grants you permission to mine for the said mineral on your own account for the said mineral in respect of the land or tailings concerned and to dispose thereof, must be attached.

7 The application must be accompanied by—

- (a) the sketch plan prescribed in regulation 33(1) indicating the location of the proposed mining area, the land comprising the subject of the application, the lay-out of the proposed mining operations and the location of surface structures connected therewith;
- (b) particulars of the manner in which and scale on which you intend to mine such mineral under such mining authorization optimally and safely and to rehabilitate disturbances which may be caused by your proposed mining operations;
- (c) particulars of the mineralization of the land or tailings, as the case may be, comprising the subject of the application; and
- (d) particulars of your ability to make the necessary provision to mine such mineral optimally and safely and to rehabilitate such disturbances of the surface.

8 The prescribed application fee must accompany this application if it is a case referred to in section 9(3)(d) of the Act, the amount of R50.00 prescribed in paragraph (b) of regulation 32.1 will be applicable, and if it is a case referred to in section 9(3)(e) the amount of R100.00 prescribed in paragraph (c) of regulation 32.1 will be applicable].

.....  
SIGNATURE OF APPLICANT

Date .....

[Form 2 inserted by GN R3083 of 20 December 1991 and amended by GN R847 of 21 June 1997.]

Form 3  
PROSPECTING PERMIT  
(Minerals Act, 1991: Section 6(1))

Permit No. ....

Office reference .....

Office  
date stamp

Authorization is hereby granted under and subject to the provisions of the Minerals Act, 1991, to (full name) .....

identity or registration number .....

(hereinafter referred to as 'the holder')

of (address) .....

to prospect for (name of mineral) .....

in respect of tailings\* on (full name of farm and subdivision) .....

No. ...., Magisterial District .....

Region .....

Full Name of holder to the right to the said mineral .....

Unless this permit is suspended, cancelled or abandoned or lapses it shall be valid from the date of issuing to .....  
..... 19 ..... or to any such later date as may have been endorsed hereon to indicate that it has been renewed.

This permit does not exempt the holder from the requirements of any provision of any other law or from any restrictive provisions or conditions contained in the title deed of the land concerned, nor does it encroach upon the rights of any person who may have an interest in the land or tailings concerned or the mineral rights in respect of such land or tailings.

Signed at ..... this ..... day of ..... 19 .....

DIRECTOR: MINERAL DEVELOPMENT

\* Delete the words 'in respect of tailings' if they are not applicable.

[Form 3 inserted by GN R3083 of 20 December 1991 and amended by GN R847 of 21 June 1997.]

Form 4  
**MINING PERMIT**  
(Minerals Act, 1991: Section 9(1) read with 9(3)(d))

Permit No. ....

Office reference .....

Office  
date stamp

Authorization is hereby granted under and subject to the provisions of the Minerals Act, 1991, to (full name) .....

identity or registration number .....  
(hereinafter referred to as 'the holder')  
of (address) .....

to mine for (name of mineral) .....  
in respect of tailings\* on (full name of farm and subdivision) .....

No. ...., Magisterial District .....  
Region ..... as indicated on the attached Sketch Plan No. ....  
signed by the Director: Mineral Development on .....

Full Name of holder to the right to the said mineral .....

Unless this permit is suspended, cancelled or abandoned or lapses it shall be valid for a period (not more than two years) which shall extend from the date of issuing to ..... 19.....

This permit does not exempt the holder from the requirements of any provision of any other law or from any restrictive provisions or conditions contained in the title deed of the land concerned, nor does it encroach upon the rights of any person who may have an interest in the land or tailings concerned or the mineral rights in respect of such land or tailings.

Signed at ..... this ..... day of ..... 19.....

DIRECTOR: MINERAL DEVELOPMENT

\* Delete the words 'in respect of tailings' if they are not applicable.

[Form 4 inserted by GN R3083 of 20 December 1991 and amended by GN R847 of 21 June 1997.]

**Form 5**  
**MINING LICENCE**  
(Minerals Act, 1991: Section 9(1) read with 9(3)(e))

Permit No. ....

Office reference .....

Office  
date stamp

Authorization is hereby granted under and subject to the provisions of the Minerals Act, 1991, to (full name) .....

identity or registration number .....

(hereinafter referred to as 'the holder').....

of (address) .....

to mine for (name of mineral) .....

in respect of tailings\* on (full name of farm and subdivision) .....

No. ...., Magisterial District .....

Region ..... as indicated on the attached Sketch Plan No. ....

signed by the Director: Mineral Development on .....

Full Name of holder to the right to the said mineral .....

Unless this permit is suspended, cancelled or abandoned or lapses it shall be valid for a period (not more than two years) which shall extend from the date of issuing until ..... 19.....  
or until the mining of which is hereby authorized can no longer be mined economically by the holder on the land concerned (if a specific date is inserted, delete the words that follow the date).

This licence does not exempt the holder from the requirements of any provision of any other law or from any restrictive provisions or conditions contained in the title deed of the land concerned, nor does it encroach upon the rights of any person who may have an interest in the land or tailings concerned or the mineral rights in respect of such land or tailings.

Signed at ..... , this ..... day of ..... 19.....

.....  
DIRECTOR: MINERAL DEVELOPMENT

\* Delete the words 'in respect of tailings' if they are not applicable.

[Form 5 inserted by GN R3083 of 20 December 1991 and amended by GN R847 of 21 June 1997.]

**Form 6**  
**WINDING PLANT**

REPUBLIEK  
VAN  
SUID-AFRIKA

REPUBLIC  
OF  
SOUTH AFRICA

DEPARTEMENT VAN MINERAAL- EN ENERGIESAKE  
DEPARTMENT OF MINERAL AND ENERGY AFFAIRS

PERMIT No.

Uitgereik ingevolge artikel 33(1) van die Mineraalwet,  
1991, vir die gebruik van 'n—

Issued in terms of section 33(1) of the Mineral Act,  
1991, to use a—

HYSINSTALLASIE

WINDING PLANT

Besonderhede van plek van oprigting	Skag Shaft	Particulars of place installed
Myn Mine		Skagdiepte Depth of Shaft

Besonderhede van hysinstallasie

Particulars of winding plant

Type Type	Helling Inclination	kW	A.C. D.C.
--------------	------------------------	----	--------------

Vervaardigers: Mechanies  
Manufacturers: Mechanical

Elektries  
Electrical

Besonderhede van hystoue

Particulars of winding ropes

Hoeveelheid Number of	Diameter (mm)	Massa Mass (kg/m)	Breeksterkte Breaking strength (kN)	Vervangingsterkte Discard strength (kN)

Besonderhede van balanstoue

Particulars of balance ropes

Hoeveelheid Number of	Diameter (mm)	Massa Mass (kg/m)	Breeksterkte Breaking strength (kN)	Vervangingsterkte Discard strength (kN)

Besonderhede van vervoermiddel

Particulars of conveyance

Type Type	Massa (Hegstukke ingesluit) Mass (Attachments included)	Vrag Load (kg)	Tipe vrag Type of load	Hyslengte vanaf kotrol Length of wind from sheave (m)	Maks. snelheid Max speed (m/s)
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Voorwaardes  
Conditions


DATUM.....

STREEKDIREKTEUR  
PRINCIPAL INSPECTOR OF MINES.....

[Form 6 inserted by GN R3083 of 20 December 1991, amended by GN R2449 of 24 December 1993 and by GN R94 of 15 January 1997.]

**Form 7**  
**ELEVATOR PERMIT**  
(Minerals Act, 1991: Section 33(1))

Permit No. ....

Office  
date stamp

Permission is hereby granted under and subject to the provisions of the Minerals Act, 1991,\* to (full name of owner of mine or works where elevator is to be used) .....

.....  
.....  
.....  
.....  
.....

of (address) .....

.....  
.....  
.....  
.....

Elevator: Situation .....

Manufacturer ..... Serial No. ....

Type .....

Type of conveyance	Mass of conveyance and attachments (kg)	Mass of load (kg)	Type of load	Length of wind (m)	Maximum winding speed (m/s)
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Winding ropes:

	Winding rope	Balance or tail rope
Diameter (mm) .....	.....	.....
Mass (kg/m) .....	.....	.....
Breaking strength (kN) .....	.....	.....
Discard strength (kN) .....	.....	.....

Signed at ..... this ..... day of ..... 19.....

PRINCIPAL INSPECTOR OF MINES

[Form 7 inserted by GN R3083 of 20 December 1991 and amended by GN R94 of 15 January 1997.]

## Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

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**Form 8**  
**CHAIRLIFT PERMIT**  
(Minerals Act, 1991: Section 33(1))\*

Permit No. ....

Office  
date stamp

Permission is hereby granted under and subject to the provisions of the Minerals Act, 1991,\* to (full name of owner of mine or works where chair lift is to be used) .....

.....  
of (address) .....

to use a chair lift, details of which appear hereunder, at (full name and description of mine or works and location thereof) .....

Name of Manufacturer.....

Number of chairs ..... Distance between chairs .....

Power of motor ..... kW Chair speed .....

Distance between drive and return sheaves ..... mm

Maximum inclination ..... degrees

Diameter of carrying-hauling rope ..... mm

Diameter of traction rope ..... mm

Diameter of safety rope ..... mm

Dimensions of traction chain ..... mm

Signed at ..... this ..... day of ..... 19.....

PRINCIPAL INSPECTOR OF MINES

\* Section 33(1) of the Minerals Act, 1991 has been repealed - see section 98(1)(g) of the Mine Health and Safety Act, 1996

[Form 8 inserted by GN R3083 of 20 December 1991 and amended by GN R94 of 15 January 1997.]

**Form 9**  
**BOILER PERMIT**  
(Minerals Act, 1991: Section 33(1))

Permit No. ....

Office  
date stamp

..... Permission is hereby granted under and subject to the provisions of the Minerals Act, 1991,\* to (full name of owner of mine or works where boiler is to be used) .....

of (address) .....

to use a boiler, details of which appear hereunder, at (full name and description of mine or works and location thereof) .....

Name of Manufacturer.....

Type .....

Factory number .....

Year of manufacture .....

Maker's intended working pressure ..... kPa

Maximum permissible working pressure ..... kPa

Evaporative capacity .....

Signed at ..... this ..... day of ..... 19.....

**PRINCIPAL INSPECTOR OF MINES**

\* Section 33(1) of the Minerals Act, 1991 has been repealed - see section 98(1)(g) of the Mine Health and Safety Act, 1996

[Form 9 inserted by GN R3083 of 20 December 1991 and amended by GN R94 of 15 January 1997.]

# Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

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Form 10

Reportable accident in terms of regulations 25.1.1(a), (b), (c), (d) and (f) and 25.6(a), (b), (c), (d) and (e)

[Form 10 added by GN R1556 of 20 August 1993.]

**GENERAL:**

1. Attach a form 11 – REPORTABLE ACCIDENT IN TERMS OF REGULATION 25.1.1 (a), (b), (c), (d) and (f) DETAILS OF DECEASED OR INJURED PERSON – for each person killed, permanently disabled or reportably injured.
2. Codes to be used in this form are specified in the Reportable Accidents Code Book.

**A TO BE COMPLETED BY THE MINE**

1	Mine's reportable accident number: (year/accident no) .....	code .....
2	Name of mine .....	code .....
3	Main commodity: .....	code .....
4	Technical manager: (owner) .....	code .....
5	Mining operations: (yes/no) Underground ..... Surface ..... Opencast/Quarry ..... Sea/River .....	.....
6	Maximum depth below surface: (e.g. depth of shaft bottom, below collar) (metres) .....	.....
7	Type of accident: .....	code .....
8	Non-casualty accident (no persons injured) reportable in terms of regulation 25.6: (regulation) .....	.....
9	Number of persons KILLED: .....	.....
10	Number of persons permanently and TOTALLY DISABLED for normal occupation: .....	.....
11	Number of persons REPORTABLY INJURED (excluding persons totally disabled and injuries i.t.o. Reg. 25.1.1(e).): .....	.....
12	Date of accident: (yy/mm/dd) .....	code .....
13	Weekday: (day of accident) (1= Sun 2= Mon 3= Tue 4= Wed 5= Thu 6= Fri 7= Sat) .....	code .....
14	Time of accident: (24 hour clock) (hh : mm) .....	.....
15	Place: (U = Underground S = Surface O = Opencast/Quarry (in the pit) C = Sea/River) .....	code .....
16	Class of place: (e.g. stope face) Words .....	code .....
17	Name of working place: .....	.....
18	Depth below surface at which the accident occurred: (metres) .....	.....
19	Section: (maximum sixteen characters) .....	.....
20	Primary category: Words .....	code .....
21	Classification: Words .....	code .....
22	Description of accident: (Attach drawing if necessary) .....	.....
23	Sequence of events which resulted in the accident: .....	.....
Mine Overseer/Foreman Name: ..... Manager/Engineer Name: ..... Manager Name: ..... Signature: .....		
Date: ..... / ..... / ..... Manager/Engineer Date: ..... / ..... / ..... Manager/Engineer		
<b>B FOR USE BY THE DEPARTMENT OF MINERAL AND ENERGY AFFAIRS</b>		
24	Accident number: .....	.....
25	Date Reported: (Date on date stamp/first date of death) (yy/mm/dd) .....	.....
Accident registered by (Mining Equipment) Date: ..... / ..... / .....		Chief Regional Mining Engineer (Mining) Date: ..... / ..... / .....
		Chief Regional Mining Engineer Date: ..... / ..... / .....
26	Cause: (e.g. 02 = Failure to comply with standards 13 = Inadequate examination/inspection/test) .....	.....
27	Inquiry: (A = No inquiry B = Inquiry only D = Inquiry + report C = Inquiry + report + typed) .....	.....
28	Contravention: (I = in the opinion of the RME (no proof) M = Referred to Attorney General N = No) .....	.....
29	Act/Regulation: (Sect 37(a) = A0:003 : A7 Reg. 7.1 = 07.001 : 00 Reg. 8.1.4 = 08.001 : 04) .....	.....
30	RME: (Regional Mining Engineer) three initials code: ..... RME Name: ..... Date: ..... / ..... / .....	Signature: ..... RME

[Form 10 added by GN R1556 of 20 August 1993.]

# Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

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## Form 11

Reportable accident in terms of regulations 25.1.1(a), (b), (c), (d), and (f); Details of deceased or injured person  
(Minerals Act, 1991: Regulation 34.1)

[Form 11 added by GN R1556 of 20 August 1993]

### GENERAL:

1. Complete one form for each person killed, permanently disabled or reportably injured.
2. Attach this form to form 10-REPORTABLE ACCIDENT IN TERMS OF REGULATION 25.1.1(a), (b), (c), (d) and (f) AND 25.6(a), (b), (c), (d), and (e).
3. Codes to be used on this form are specified in the Reportable Accidents Code Book.

ACCIDENT NUMBER: .....

A TO BE COMPLETED BY THE MINE		
1	Mine's reportable accident number: (key field, not to left blank)	(years/accident no) .....
2	Mine's Rand Mutual Assurance claim number:	.....
3	Name of Mine: .....	code .....
4	Date of accident: (yy/mm/dd) .....	.....
B DETAILS OF CASUALTY (PERSON): see form 10 for details of the ACCIDENT		
5	Surname: .....	.....
6	Full first name: .....	.....
7	Identity or passport number: (this is required data and may not be left blank)	.....
8	Identity number:	.....
9	Complete 1 of these 2 fields: (a) P.F. number; or (b) Company number	.....
10	Date of birth: .....	(yy/mm/dd) .....
11	Age: .....	(years) .....
12	Province of country or origin: Words .....	code .....
13	Statistical code: (B, W, C, A)	code .....
14	Male or female: (M = Male F = Female)	code .....
15	Present occupation: (at time of accident) Words .....	code .....
16	Experience: (length of service in present occupation)	(years : months) .....
17	Activity: (e.g. injured while ..... DRILLING) Words .....	code .....
18	Nature of injury: Words .....	code .....
19	Bodypart injured: Words.....	code .....
20	Reportability: (I = Reportably injured (Reg. 25.1) F = Fatal T = Totally disabled)	code .....
21	If deceased, date of death:	(yy/mm/dd) .....

ALLOCATED DAYS LOST: .....

[Form 11 added by GN R1556 of 20 August 1993.]

**Reportable accident in terms of regulation 25.1.1(e)**

(Minerals Act, 1991: Regulation 34.1)  
[Form 12 added by GN B11556 of 20 August 1993.]

[Form 12 added by GN R1556 of 20 August 1993.]

Accidents reported in the calendar month: .....

Name of Mine:

Codes to be used on this form are specified in the Reportable Accidents Code Book.

[Form 12 added by GN R1556 of  
20 August 1993.]

# Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

**Form 13**  
**ROCKBURSTS AND FALL OF GROUND ACCIDENTS**  
**(Minerals Act, 1991: Regulation 34.1)**  
[Form 13 added by GN R1556 of 20 August 1993.]

**INSTRUCTIONS:**

- 1 This form must be completed by the Mine for each rockburst or fall of ground related fatal accident.
- 2  Coding only

**A GENERAL**

- 1 Name of mine:.....
- 2 Date of accident (YY/MM/DD):.....
- 3 Regional accident number:.....
- 4 Activity being performed at time of accident:.....
- 5 Cause of the accident:.....
- 6 Depth below surface:.....
- 7 Mining method (Longwall, scattered, etc.):.....

**B DETAILS OF THE ACCIDENT—I LOCATION**

- 8 Description of working place (Shaft, tunnel, stope, remnant, etc.):.....
- 9 Distance from face (if relevant): .....
- 10 Distance from panel bottom strike gully (if relevant) .....
- 10.1 Dimensions of stope:..... Strike span..... m Dip span..... m Stoping width..... m
- 10.2 Dimensions of other excavations:..... Height ..... m Width..... m Length..... m

**II SITE DESCRIPTION**

- 11 Quality of excavation (Observed overbreak and damage to hanging wall and footwall and remarks about marketing, drilling, charging):
- 12 Support of opening:
  - 12.1 Temporary support (Type, size, spacing, no. of rows, distance from face):
    - (i) According to the code of practice:.....
    - (ii) After accident observed:.....
  - 12.2 Permanent support (Type, size, spacing, distance from face):.....
  - 12.3 Regional support (Type, size, spacing):.....
- 13 Comments on the effectiveness of support and its applicability:.....

## Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

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14	Information about instrumentation near place of accident:	
14.1	Instrumentation near the place of accident (if applicable) (Convergence meters, extensometers, inclinometers, loadcells, seismic station):	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
14.2	Did instrument serve as warning signal in hindsight? (Comments):	<input type="text"/>
15	Geological details:	
15.1	Reef being mined (if applicable):	<input type="text"/>
15.2	Immediate H/W (Rock type, U.C.S. strength):	<input type="checkbox"/> <input type="checkbox"/>
15.3	Immediate F/W (Rock type, U.C.S. strength):	<input type="checkbox"/> <input type="checkbox"/>
15.4	Reef/ore (Rock type, U.C.S. strength):	<input type="checkbox"/> <input type="checkbox"/>
15.5	Relevant geological structure (Dykes, faults, bedding planes, jointing and their intensity, dip angle, infilling):	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
15.6	Shortest distance between scene of accident and geological structure:	<input type="text"/>
15.7	Field stress state (Measured or estimated):	<input type="text"/>
15.8	Induced fractures:	<input type="text"/>
16	Fall of ground description:	
16.1	Dimensions of the fall: Height .....m Width .....m Length .....m	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
16.2	Boundaries of the fall (e.g. joints, faults, bedding planes, induced fractures):	<input type="checkbox"/> <input type="checkbox"/>
17	Rockburst (Defined as a seismic event causing damage to an underground opening):	
17.1	Total size of area affected (in square meters):	<input type="text"/>
17.2	Estimated maximum closure:	<input type="text"/>
17.3	Extent of damage (Area of damage to H/W, F/W and sidewalls in square meters, and no. of support units damaged):	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
17.4	Suspected bursting mechanism (Pillar burst, dyke burst, crush burst, fault slip, shaking):	<input type="text"/>
17.5	Suspected bursting mechanism based on (Energy level, full wave from analysis, observation):	<input type="text"/>
17.6	Details of the seismic event. (See section C.) (If information is not available leave the space unfilled):	<input type="text"/>
17.7	Seismic history of the area. (See section D.) (If information is not available leave the space unfilled):	<input type="text"/>
17.8	Distance between hypocentre and rockburst damage:	<input type="text"/>
18	The general mine layout in the area and whether it could have contributed to the accident (e.g. leads, lags, face shape, E.R.R.):	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>C SEISMIC EVENT DETAILS</b>		
19	Seismic event reference no.:	20 Hypocentre: X .....m Y .....m Z .....m
21	Location error: .....m	22 Local magnitude: .....
23	Time (H:M): .....	24 Seismic moment: .....Nm
25	Energy radiated: P-wave.....J	25 S-wave .....
26	Source radius (Brune thettheory): .....m	27 Corner frequency: .....Hz
28	Static stress drop: .....MPa	29 Dynamic stress drop: .....MPa
30	Calculated/measured ground motion:	
30.1	Peak acceleration (g = 9.81m/sec <sup>2</sup> ): .....g	30.2 Peak velocity: .....cm/sec
30.3	Displacement : .....cm	30.4 Duration: .....sec

Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and Regulations

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31 Seismic moment release:													
31.1 Per 1m of face advance (Nm/m) or 31.2 Per 1t of rock output and within 300m radius of scene of the accident													
		<table border="1" style="width: 100px; margin: auto;"> <tr> <td colspan="3" style="text-align: center;">Before accident</td> </tr> <tr> <td style="text-align: center;">1 Week</td> <td style="text-align: center;">1 Month</td> <td style="text-align: center;">Average</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>			Before accident			1 Week	1 Month	Average			
Before accident													
1 Week	1 Month	Average											
<b>D SEISMIC HISTORY OF THE AREA</b>													
32 Within 300m radius of scene of the accident.		<b>Magnitude</b> <table border="1" style="width: 100px; margin: auto;"> <tr> <td style="text-align: center;">&lt; 0</td> <td style="text-align: center;">0–1</td> <td style="text-align: center;">1–2</td> <td style="text-align: center;">&gt; 2</td> <td style="text-align: center;">Total</td> </tr> </table>			< 0	0–1	1–2	> 2	Total				
< 0	0–1	1–2	> 2	Total									
No. of seismic events Energy released: P-wave J 1 Day S-wave J before accident Seismic moment release Nm Static stress drop MPa Max. energy index (E-obs/E-expec)													
No. of seismic events Energy released: P-wave J 1 Week S-wave J before accident Seismic moment release Nm Static stress drop MPa Max. energy index (E-obs/E-expec)													
No. of seismic events Energy released: P-wave J 1 Week S-wave J before accident Seismic moment release Nm Static stress drop MPa Max. energy index (E-obs/E-expec)													
33 B-value (Within 300m radius of scene of accident)		<table border="1" style="width: 100px; margin: auto;"> <tr> <td colspan="3" style="text-align: center;">Before accident</td> </tr> <tr> <td style="text-align: center;">1 Week</td> <td style="text-align: center;">1 Month</td> <td style="text-align: center;">Average for last 6 months</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>			Before accident			1 Week	1 Month	Average for last 6 months			
Before accident													
1 Week	1 Month	Average for last 6 months											
<b>E. COMPLETED BY</b> Name: ..... Signature: ..... Date: ..... Designation: ..... Manager's signature: .....													

[Form 13 added by GN R1556 of 20 August 1993.]

## CHAPTER 35 ...

[Chapter 35 added by GN R1110 of 16 April 1992, amended by GN R2223 of 7 August 1992, by GN R94 of 15 January 1997 and by GN R1574 of 13 December 2002 and repealed by GN 846 of 18 August 2006.]

## **Mines and Works Act (Act No. 27 of 1956): Chapter 9**

9.

- (1) No person shall perform, or cause or permit any other person to perform, any work at a mine or works, in connection with the operation of a mine or works, on a Sunday, Christmas Day or Good Friday, unless the work is-
  - (a) attending to or working pumping or ventilating machinery, or machinery for the supply of light, heat or power, or any boiler belonging to any such machinery;
  - (b) such work above or below the surface as cannot be delayed without causing danger or damage to life, *health* or property, including work in workshops necessary or incidental to any such work;
  - (c) operating any continuous chemical, metallurgical or smelting process, if a stoppage thereof during the whole of any such day would either prevent its immediate resumption on the next succeeding day or diminish the effectiveness of the process;
  - (d) the running of stamp mills or other machinery used for crushing ore, erected before the first day of December, 1911; or
  - (e) the policing of the mine or works, or the carrying on of medical and *health* services or services in connection with housing and feeding.
- (2) The Government Mining Engineer may, on application to an inspector of mines, grant special permission for carrying on temporarily any necessary work, in addition to work described in sub-section (1), at a mine or works on the days mentioned in that sub-section.

**Telephone number: +27 11 656 1797 | Fax no: +27 11 656 1796**

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