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THE undermentioned regulations made under the provisions of the Mines Regulation Act, 1946, and amended from time to time prior to the 23rd April, 1971, are reprinted as so amended pursuant to the Reprinting of Regulations Act, 1954, by authority of the Attorney General.

W. J. ROBINSON,
Under Secretary for Law.

MINES REGULATION ACT, 1946.

MINES REGULATION ACT REGULATIONS.

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Reprinted pursuant to the Reprinting of Regulations Act, 1954, by authority of the Attorney General, dated 13th July, 1971.

Mines Regulation Act, 1946.

MINES REGULATION ACT REGULATIONS.

PART 1.—PRELIMINARY.

Citation.

1. These regulations may be cited as the Mines Regulation Act Regulations.

Interpretation.

2. In these regulations, unless the context requires otherwise—
 - “Act” means the Mines Regulation Act, 1946;
 - “Mines Medical Officer” means a medical officer for the time being appointed to, and employed in, that office under section seven of the Mine Workers’ Relief Act, 1932;
 - “Senior Inspector” means the inspector of mines appointed to the position of senior inspector of mines by the Minister;
 and the interpretations contained in section four of the Act shall apply.

Reg. 2.
Amended by
G.G. 17/7/70,
P. 2150.

Arrangement.

3. The provisions of these regulations are arranged as follows:—
 - PART I.—PRELIMINARY—Regulations 1-7.
 - PART II.—INSPECTION—Regulations 8-25.
 - PART III.—MANAGEMENT AND SUPERVISION—Regulations 26-43.
 - PART IV.—EXPLOSIVES—Regulations 44-60.
 - PART V.—SAFETY AND PROTECTION—Regulations 61-83.
 - PART VI.—LADDERS AND TRAVELLING WAYS—Regulations 84-91.
 - PART VII.—WINDING AND SIGNALS—Regulations 92-131A.
 - PART VIII.—VENTILATION—Regulations 132-158.
 - PART IX.—SANITATION AND HYGIENE—Regulations 159-171.
 - PART X.—UNDERGROUND LOCOMOTIVES, INCLUDING SHUTTLE CARS—Regulations 172-204.
 - PART XI.—ELECTRICITY IN MINES—Regulations 205-223.
 - PART XII.—PLANS AND SURVEYS—Regulations 224-244.
 - PART XIII.—MISCELLANEOUS—Regulations 245-249.
 - PART XIV.—OCCUPATIONAL DISEASES—Regulations 250-258.

SCHEDULE OF FORMS.

General Rules.

4. The provisions of Part IV to X, inclusive, and Part XIII of these regulations are hereby declared, pursuant to subsection (4) of section sixty-one of the Act to be the general rules and shall be observed in all mines wherever and so far as in the opinion of the inspector they are reasonably practicable of application.

General Rules shall not affect the Provisions of Inspection of Machinery Act, 1921.

5. Nothing contained in the general rules shall limit or affect the provisions of the Inspection of Machinery Act, 1921-1947¹ in so far as they are applicable to any machinery or boilers used in

¹ Now Inspection of Machinery Act, 1921-1969.

the working of any mine to which the Act applies, but when an Inspector of Machinery appointed under the provisions of that Act is not available an inspector may exercise all the powers of an inspector so appointed in respect of that machinery or those boilers.

Observance and Enforcement of General Rules.

6. Any person who contravenes or fails to comply with the provisions of any general rule contained in these regulations shall be guilty of an offence against the Act, and in the event of any contravention of or non-compliance by any person being proved, the manager, owner, and agent shall also be deemed guilty of a like offence, unless it is proved that the manager had taken all reasonable means by publishing and, to the best of his power, enforcing those rules in order to prevent the contravention or non-compliance.

Printed Copy of Rules to be Posted on Every Mine.

Reg 7.
Amended by
G.G.
10/2/66,
p. 431.

7. A printed copy of the general rules for the time being shall be posted in the office (if any) and on a building or board in some conspicuous place on every mine in which they are in force and the same shall be maintained in a legible condition. Any person who pulls down, injures or defaces any such printed copy of the rules shall, for every such offence, be liable to a penalty not exceeding four dollars.

PART II.—INSPECTION.

District Inspectors of Mines, Conditions of Appointment.

8. All appointments of District Inspectors of Mines made under the provisions of the Act shall be subject to the following conditions:—

- (a) Applicants for appointments as inspectors of mines shall forward with their applications a statutory declaration stating—
 - (i) the name in full of the applicant;
 - (ii) the place and date of his birth;
 - (iii) the nature of his occupation or profession during the period of five years last preceding the date of the application, with the dates of beginning and ending of each period of employment, and the names and addresses of his employers;
 - (iv) the nature and amount of his practical experience in underground mining work;
 - (v) particulars of any degrees, diplomas, or certificates of competency in regard to mining work held by him;
 - (vi) that he is the person mentioned and referred to in the testimonials and other documents submitted in support of and attached to his application.
- (b) Applicants of less than twenty-eight or more than forty-five years of age will not be eligible for appointment unless the Minister, on the report of the Selection Committee, referred to in the next succeeding regulation, is satisfied that there are good reasons for appointing a person above the said limit of age.
- (c) Applicants shall submit documentary evidence from persons of good repute certifying to their good character and sobriety, and prior to any appointment being confirmed the Minister may require any applicant to supply satisfactory medical evidence of his being in a sound state of physical health and free from any ailment or disease likely to interfere with the performance of his duties.

Selection Committee for Inspectors of Mines.

9. All applications shall be submitted to a Selection Committee consisting of the following three members—

- the State Mining Engineer, who shall be Chairman and Convenor thereof;
- one representative who shall be nominated from time to time by the Chamber of Mines of Western Australia and who shall be the holder of a Mine Manager's Certificate under the Act, and be approved by the Minister; and
- one representative who shall be from the Australian Workers' Union, Westralian Goldfields Mining Branch, Industrial Union of Workers and be approved by the Minister,

who shall examine the applications of candidates and may require candidates to appear before them for personal interview. The Committee shall select the names of candidates they may consider suitable to fill the position and transmit them to the Minister with a recommendation showing the names in order of merit. The Minister, subject to the Public Service Act, 1904-1948¹, may thereupon appoint one of those candidates to be an inspector of mines, with or without a period of probation.

Workmen's Inspectors of Mines.

10. Workmen's inspectors may be appointed for full-time employment or part-time employment, as the Minister in his discretion may decide that the needs of the case require, but no person shall be so employed after reaching the age of sixty-five years.

Conditions of Appointment.

11. Workmen's inspectors may be appointed for such districts or for such mining centres, or for such mines or group of mines as the Minister may from time to time direct.

Notice to be Given.

12. The Minister may, from time to time, by notice in the *Government Gazette*, specify the districts, mining centres, mines, or group of mines for which he is willing to appoint workmen's inspectors.

Powers of Workmen's Inspectors.

13. The powers of every workmen's inspector, as provided under section twelve of the Mines Regulation Act, 1946, shall apply to all mines within the district, mining centre, mines, or groups of mines specified by the Minister in accordance with the last preceding regulation as those for which the workmen's inspector shall be appointed, and subject always to the control of the district inspector, it shall be such workmen's inspector's duty from time to time to inspect and exercise his powers in all the mines therein where men are employed underground as wages men, contractors, or tributers, together with such other mines as may from time to time be arranged and directed by the district inspector.

Wages of Workmen's Inspectors.

14. [*Revoked by G.G. 26.9.68, p. 2866.*]

Workmen's Inspector under the Control of the District Inspector.

15. Every workmen's inspector shall be under the control and direction of the district inspector of the district for which the workmen's inspector is appointed, and shall make all his reports to the district inspector. He shall also forward a copy of all his reports entered in mine record books to the industrial unions having members concerned, and to the Chamber of Mines.

¹ Now Public Service Act, 1904-1970.

Elections for Workmen's Inspectors.

Reg. 16.
Amended by
G.G.
11/6/54,
pp. 1081-2;
G.G.
1/5/57,
pp. 1207-8.

16. The Minister may, from time to time, direct that an election of workmen's inspectors be held in each of such districts, on such dates and at such times and places as he may appoint, and for the carrying out of the election the following conditions shall be observed:—

- (a) The Chief Electoral Officer appointed pursuant to the provisions of the Electoral Act, 1907-1940¹, or a deputy appointed by him shall act as returning officer at the election and shall be empowered to make all necessary arrangements.
- (b) Every candidate for appointment shall be nominated in writing by not less than six persons who are actually employed in mines in the district in question at the date of signing the nomination, and shall forward his nomination paper so as to reach the office of the returning officer on or before the date fixed by the Minister for receipt of nominations, accompanied with an application from himself for employment in the desired position, any testimonials or other evidence which he may desire to submit in support thereof, a medical certificate that he is in good health and physically fit for the work of the position, and a statutory declaration signed by himself, under the Evidence Act, 1906, declaring his name in full, occupation, place of abode, age, place and date of birth, nationality, the nature and extent of his mining experience.
- (c) All nominations received shall be transmitted forthwith to the Minister, who may require further information about any candidate, and proof of any of the facts contained in the declaration accompanying his application, including a medical certificate of health and physical fitness, and a statutory declaration from not less than two respectable persons that they are well acquainted with the candidate and know him to be of sober habits and good character. The Minister may disapprove of any candidate at his discretion, and the nomination of that candidate shall thereupon become void.
- (d) If only one nomination is received for each position vacant, and is approved by the Minister, the candidate so nominated and approved may be appointed by the Minister without further election, or the Minister may call for fresh nominations.
- (e) If more nominations than one for each position vacant are received and approved by the Minister, he shall fix the dates, times and places at which elections shall be held for each position, and the Returning Officer shall thereupon cause the names and addresses of the duly nominated and approved candidates to be posted up at two or more conspicuous places within each district for which a workmen's inspector is to be appointed, and to be advertised not less than twice in a newspaper circulating in such district, and the notices and advertisements shall state the dates, times and places at which votes may be cast for election of the workmen's inspector.
- (f) The Returning Officer shall arrange for voting papers to be given out and ballot boxes to be provided to receive them when duly marked at the mines in each district for which a workmen's inspector is to be appointed, or at such other convenient places as the Minister may direct, or both and every person voting shall appear personally at one of those places to cast his vote.
- (g) No person, who is not employed in a mine in the district for which the election is held, or who, being out of employment at the time of the election, was not last employed in a mine in that district within a month of the date of the election, shall be entitled to vote, but any person who may be out of employment through illness or other cause, and

¹ Now Electoral Act, 1907-1970.

who would be debarred from voting under this paragraph may apply to the Returning Officer or a Presiding Officer to be allowed to vote, and may be permitted to vote if the Returning Officer or Presiding Officer is satisfied that the person has been previously last employed in a mine in that district and is not still so employed for good and sufficient reasons beyond his own personal control.

- (h) Before receiving his voting paper from the Returning Officer or a Presiding Officer each voter shall satisfy the Returning Officer or Presiding Officer by a certificate from the office of the mine at which he is employed, or by personal identification by an officer of that mine, or by such other evidence as may seem to the Returning Officer or Presiding Officer to be sufficient, that he is entitled to vote at the election. In any case in which the Returning Officer or Presiding Officer is not fully satisfied, he may require the voter to make a statutory declaration showing the grounds on which he claims to be entitled to vote.
- (i) No person shall vote more than once at the same election, and the Returning Officer or a Presiding Officer may require any voter, before a voting paper is given to him, to make a statutory declaration that he has not voted previously at the same election.
- (j) [*Revoked see G.G. 1/5/57, p. 1208.*]
- (k) Each candidate may scrutinise all evidence submitted to the Returning Officer or a Presiding Officer in support of claims to vote, and may have the assistance of one scrutineer appointed by himself at each voting place in doing so and in scrutinising the subsequent counting of the votes.

Voting at Elections for Workman's Inspectors.

17. (1) The method of marking the voting papers shall be on the optional preference system, as follows:—

- (a) In the case of the election of one workmen's inspector, the voter shall mark his vote on the voting paper by placing the numeral 1 opposite the name of the candidate for whom he votes as his first preference, and he may, if he so desires, give contingent votes for the remaining candidates or any of them, by placing numerals 2, 3, 4, and so on opposite their names.
- (b) In the case of the election of two workmen's inspectors, the voter shall mark his vote on the voting paper by placing the numerals 1 and 2 opposite the names of the candidates for whom he votes as his first and second preferences, and he may, if he so desires, give contingent votes for the remaining candidates, or any of them, by placing numerals 3, 4, 5, and so on opposite their names.

(2) In the case of the election of one workmen's inspector, the counting of votes shall be on the preferential system as employed in election for the State Parliament, so far as it is applicable, provided that a voting paper shall not be informal if it be marked in accordance with paragraphs (a) and (b) of the last preceding sub-regulation.

(3) Where two workmen's inspectors are to be elected, the count of the votes will proceed until one candidate has received an absolute majority, when he shall be declared elected.

(4) The first elected workmen's inspector is then eliminated from the count, and to proceed with the election of the second workmen's inspector, all the ballot papers, including those which have been set aside as exhausted, shall be brought into operation and again sorted into first preference votes.

(5) The first preference votes of the eliminated successful candidate shall be distributed according to the second preference markings shown thereon to the remainder of the candidates, and when added to their respective first preference votes, shall constitute the first count for the second workmen's inspector.

(6) The procedure from then on will be similar to that obtaining for the election of the first workmen's inspector.

(7) The Minister may authorise alterations in detail as may be deemed necessary by him.

(8) In all matters not herein provided for, the provisions of the Electoral Act, 1907-1940,¹ in connection with Parliamentary elections shall be followed, so far as they are applicable to the election of workman's inspectors.

Announcement of Election Result.

18. When the votes have been counted the Returning Officer shall publicly announce the result and post it in writing in a conspicuous place, and shall report it forthwith to the Minister.

Penalty for Fraudulent Voting.

Reg. 19.
Amended by
G.G.
10/2/66.
p. 431.

19. Any person voting who is not entitled to vote, or voting more than once at the same election, shall be guilty of a breach of these regulations, and shall be liable to a penalty of not more than twenty dollars for each offence.

District Boundaries may be Extended.

20. The Minister may, from time to time, by notice in the *Government Gazette*, extend the boundaries of the district of a workmen's inspector to include other mining centres, mines, or groups of mines than those for which he was elected, without an election for the district so extended, but such extension shall participate in the next subsequent election.

Fees Payable to Returning Officers, etc.

Reg. 21.
Substituted
by G.G.
1/5/57.
p. 1208.
Amended by
G.G.
10/2/66.
p. 431.

21. (1) The fees payable to Returning Officers, Assistant Returning Officers, Presiding Officers, Assistant Presiding Officers and Poll Clerks for their services in connection with the election of Workmen's Inspectors of Mines shall be as follows:—

- (a) Returning Officers shall be paid 50 per cent of the fee prescribed for a Returning Officer for State Parliamentary Elections in the Regulations made under the Electoral Act, 1907-1953¹, which are in force at the time of the holding of an election.
- (b) Assistant Returning Officers—including fee for presiding—shall be paid the fee prescribed for a Presiding Officer plus two dollars (\$2).
- (c) Presiding Officers, Assistant Presiding Officers and Poll Clerks shall be paid the appropriate fee prescribed for State Parliamentary Elections in the Regulations made under the Electoral Act, 1907-1953,¹ which are in force at the time of the holding of an election.

(2) Where more than twenty (20) Polling Places have been appointed the Returning Officer shall be paid in addition to the fee prescribed in subregulation (1) of this Regulation a further fee of fifty cents (50c) for every Polling Place in excess of twenty.

(3) A fee of three cents (3c) for each certificate shall be paid to Mines Officials for the preparation of Voters' Certificate.

(4) Persons appointed under the provisions of the Public Service Act, 1904-1956,² are authorised to receive and retain such fees as are provided for their use under this Regulation.

22. [*Revoked by G.G. 1/5/57, p. 1208.*]

Inspector to Inspect all Places where Men are Working.

Reg. 23.
Substituted
by G.G.
11/6/54,
p. 1081.

23. It shall be the duty of inspectors when making an inspection of a mine to visit every current working place except the administrative offices.

¹ Now Electoral Act, 1907-1970.

² Now Public Service Act, 1904-1970.

Posting up Result of Inspections made by Inspectors.

24. Whenever an inspector makes an inspection under the provisions of section twelve of the Act, the entry made by him in the record book shall be posted up within three days next following that on which the entry is made by the manager on a notice board which shall be maintained by the manager, at the mine so as to be easily accessible for perusal by all workers.

Inspectors Under Previous Act.

25. All district inspectors, workmen's inspectors and special inspectors appointed under the provisions of the Mines Regulation Act, 1906-1945, holding such positions at the coming into operation of the Act, shall be deemed to be properly appointed under the provisions of the Act.

PART III.—MANAGEMENT AND SUPERVISION.

Manager's Responsibility for Workings of Contractors and Tributers.

26. (1) Subject to the provisions of subregulation (3) of this regulation, in every mine of which there is a registered manager, it shall be a condition of the agreement between him and every contractor and tributer employed in the mine that the manager shall have supervision and control of all the work carried out by the contractor or tributer and in respect of the work shall be deemed to be the manager appointed by the contractor or tributer insofar as he is owner of the mine or part thereof unless the contractor or tributer, with the consent in writing of the inspector and of the owner, agent or manager, from whom the contract or tribute is taken, shall himself appoint and register a manager to have charge of the said work.

(2) Subject to the provisions of subregulation (3) of this regulation, the inspector may, in writing, prescribe the part or parts of the mine in which the contractor's or tributer's manager shall have responsibility for the due performance of the provisions of the Act and these regulations and beyond the prescribed part or parts the firstmentioned registered manager shall have full responsibility.

(3) The provisions of this regulation shall not apply where the whole of the land or mines comprised in a mining lease has or have been let on tribute, and it is one of the conditions of the tribute agreement that the tributer, or some person nominated by him, shall be registered as manager under the Act.

Notices of Commencement, Abandonment, Discontinuance, and Recommencement of Mining Operations.

27. The notices to be given by the owner, agent, or manager to the inspector in accordance with the provisions of section twenty-nine of the Act shall include the following particulars:—

- (a) The name and address of the mine owner.
- (b) The name and location of the mine.
- (c) The number of the lease or other mining tenement.
- (d) The date on which the mining operations have been abandoned, discontinued, or recommenced.
- (e) A statement of whether the mining operations are abandoned or discontinued or recommenced.

Manager in Charge of a Mine to Inspect.

28. The manager, or some duly qualified person or persons appointed by him, shall, once in each week, carefully examine the buildings and machinery used in the working of the mine and the condition of the mine itself, and shall record in writing and sign, in the mine record book, his opinion as to their condition and safety and any repairs and alterations required to insure greater safety to the persons employed therein.

All mine record books shall be filed for reference for at least twelve months after their completion.

Constitution of Board of Examiners.

29. (1) For the purpose of granting mine managers and underground supervisors certificates of competency and service, there shall be a board of examiners, consisting of—

- the State Mining Engineer or his deputy, who shall be chairman thereof;
- the Director of the School of Mines of Western Australia;
- the Senior Inspector of Mines;
- a certificated mine manager under the Act, nominated by the Chamber of Mines.

(2) The chairman and two other members shall constitute a meeting of the Board and shall be competent to discharge the duties of the Board.

(3) Any member of the Board may, with the permission of the chairman, appoint a deputy to act for him when the member is unable to attend any meeting of the Board.

Duties of Board.

Reg. 30.
Amended by
G.G.
19/12/62,
p. 4048.

30. (1) The Board shall carefully examine the qualifications of applicants for certificates of competency as mine managers and underground supervisors and may examine the applicants in writing or orally, or both, as may seem to it most advisable, or may appoint examiners to conduct such examinations, and shall issue certificates to successful candidates.

(2) The Board or the examiners appointed by it will meet at such times and places as the Minister may direct. Notices of intention to hold examinations will be advertised in a paper or papers circulating in the mining districts of the State.

(3) The Board may exempt from further examination (except in Mining Law)—

- (a) any candidate for a First Class Mine Manager's Certificate of Competency, who holds the Diploma in Mining from the School of Mines of Western Australia, or such other qualifications as the Board may in any case consider to be equivalent thereto;
- (b) any candidate for a Second Class Mine Manager's Certificate of Competency who holds a Mine Manager's Certificate from the School of Mines of Western Australia, or such other qualifications as the Board may in any case consider to be equivalent thereto.

(4) The Board on issuing a certificate of competency pursuant to subregulation (1) of this regulation may restrict the application of the certificate to either or both a particular locality or a particular type of work, and shall endorse any such restriction or restrictions on the face of the certificate.

Applications for Certificates.

Reg. 31.
Amended by
G.G.
5/12/52,
p. 2888;
G.G.
19/12/62,
p. 4048-9;
G.G.
10/2/66,
p. 431.

31. (1) Candidates for certificates of competency shall make application on the prescribed form which may be obtained from the Secretary of the Board. Applications shall be accompanied by a fee of—

- (a) \$2.10 for Underground Supervisor's Certificate of Competency.
- (b) \$4.20 for Second Class Mine Manager's Certificate of Competency.
- (c) \$6.30 for First Class Mine Manager's Certificate of Competency.

(2) Every applicant for a First Class Mine Manager's Certificate or a Second Class Mine Manager's Certificate shall with his application produce to the Board evidence that—

- (a) he has attained the age of twenty-five years;

- (b) he has had practical experience in or about a mine for a period of not less than five years, of which period at least three years has been general underground mining experience of a nature acceptable to the Board;
- (c) he is of good character; and
- (d) he has received satisfactory training in First Aid.

(3) Every applicant for an Underground Supervisor's Certificate shall with his application produce to the Board evidence satisfactory to the Board of his general experience in underground mining, his good conduct, his training in First Aid and his having been employed underground for a period of not less than five years.

(4) The original and a copy of every testimonial of a candidate shall be forwarded to the Board, which, after examination, shall return the originals to the candidate.

(5) Every application shall have attached to it a statutory declaration of the applicant that all representations are true.

32 and Heading. [Revoked by G.G. 19/12/62, p. 4049.]

Subjects of Examination.

33. (1) The subjects of examination for a First Class Mine Manager's Certificate of Competency shall be as laid down in the course for the Diploma in Mining at the School of Mines of Western Australia, together with a separate examination in mining law, requiring a knowledge of the mining laws of the State as laid down in the Mines Regulation Act, 1946, and the Mining Act, 1904, and the regulations made pursuant to the provisions of those Acts.

(1a) The subjects of examination for a Second Class Mine Manager's Certificate of Competency shall be as laid down for a Mine Manager's Certificate at the School of Mines of Western Australia, together with a separate examination in mining law, requiring a knowledge of the mining laws of the State as laid down in the Mines Regulation Act, 1946, and the Mining Act, 1904, and the regulations made pursuant to the provisions of those Acts.

(2) The subjects of examination for an underground supervisor's certificate of competency shall be—

- (a) mining, including—
 - (i) the laying out and construction of shafts, chambers, levels, winzes, rises, stopes and other underground workings;
 - (ii) methods of breaking ground and exploitation of ore;
 - (iii) methods of timbering, filling and otherwise supporting workings;
 - (iv) the drainage of mines, and appliances used therefor;
 - (v) haulage in shafts and underground planes, including the strength of ropes, chains, and haulage appliances, and methods of testing same;
 - (vi) the ventilation of mines;
 - (vii) the tapping of water in mines and the construction of underground dams;
 - (viii) the lighting of mines;
 - (ix) methods of practice of blasting and the use, nature, and properties of explosives;
 - (x) the construction and use of safety cages, detaching hooks, apparatus for the prevention of overwinding, and other safety appliances;
 - (xi) sanitary appliances;
 - (xii) all other subjects connected with the underground working of a mine;
- (b) knowledge of the mining laws in force in the State especially the Mines Regulation Act, 1946, and the regulations made pursuant to the provisions of that Act.

Reg. 33.
Amended by
G.G.
19/12/62,
p. 4049.

Exemptions.

34. Candidates for certificates of competency may be exempted from any or all of the subjects of examination, with the exception of that in mining law, if they submit proof that they have already passed examinations in those subjects which, in the opinion of the Board, are equivalent to the standards required by the Board.

Existing Certificates.

35. Certificates of competency or of service issued under the Mines Regulation Act, 1906-1945, shall be deemed to be of equal force with similar certificates issued under these regulations and the holders of such certificates shall be deemed qualified as required by section 25 (2) of this Act.

Inquiry by Board of Examiners.

36. If at any time representation is made to the Minister by an inspector that any holder of a certificate issued pursuant to the provisions of these regulations, or deemed to be of equal force thereto, is incompetent or unfit to discharge his duties, or has been convicted of an offence against the provisions of this Part, the Minister shall investigate, and if he thinks fit, cause inquiry to be made by the Board of Examiners into the conduct of that holder of a certificate, and with respect to every inquiry so made, the following provisions shall have effect:—

- (a) The inquiry shall be held at such time or place as the Board may appoint and the holder of the certificate shall be given twenty-one days' notice of the Board's intention to hold the inquiry and shall have the right to defend himself at the inquiry.
- (b) The Board shall, at least ten days before the commencement of the inquiry, furnish the holder of the certificate with a statement of the case upon which the inquiry is instituted.
- (c) The holder of the certificate shall attend the inquiry and may produce such evidence as may be considered necessary.
- (d) The Board shall, upon the conclusion of the inquiry, forward to the Minister a report containing a full statement of the case, and its opinion thereon; and the Governor, on the recommendation of the Minister, may either cancel or suspend the certificate, or fine or admonish the holder of it.
- (e) Any person shall, if ordered in writing so to do by the Minister, deliver into the charge of the Board his certificate of competency or of service, which shall be retained by the Board during the period of his disqualification, and he shall not, during the period of disqualification, take charge of any mine, and any person failing to comply with or acting in contravention of this regulation shall be guilty of an offence against this regulation.
- (f) Any person attending as witness before the Board shall be allowed the same witness fee and expenses as would be the case were he attending as a witness before the Supreme Court in its criminal jurisdiction.

Costs of Inquiry.

37. (1) The Board may make such order as it thinks fit respecting the costs and expenses of the inquiry, and such order shall, on the application of any party entitled to benefit thereof, be enforced by any court of summary jurisdiction as if such costs and expenses were a penalty imposed by that court.

(2) The party entitled to the benefit of such order shall be entitled to obtain from the Board a certified copy thereof.

Suspension of Certificates.

38. Where a certificate is suspended or cancelled in pursuance of the provisions of these regulations, the suspension or cancellation shall be recorded in the register of the holders of certificates and shall be notified by the Board to the Minister.

Lost Certificates.

39. Whenever any person proves to the satisfaction of the Minister that he has without fault on his part lost any certificate granted him under the provisions of these regulations, the Minister may, on payment of a fee of one dollar cause a copy of the certificate to which the applicant appears by the register to be entitled, to be made out and certified by the person who keeps the register, and delivered to the applicant, and any copy which purports to be so made and certified as aforesaid shall have all the effect of the original certificate.

Reg. 39.
Amended by
G.G.
10/2/66,
p. 431.

Counterfeit Certificates.

40. Every person who is convicted of any offence referred to in Chapters XLVIII and XLIX of the Criminal Code, 1913 (relating to forgery and like offences) in connection with any certificate of competency or service referred to in these regulations, shall be regarded as having committed an offence against the provisions of this Part.

Offences.

41. A person shall not—

- (a) act as underground shift boss or supervisor unless he is the holder of an Underground Supervisor's Certificate of Competency or a First or Second Class Mine Manager's Certificate of Competency or a certificate deemed by the Board to be equivalent thereto;
- (b) act as assistant Underground Manager, foreman, superintendent or supervisor of more than twenty-five men underground, or as Underground Manager of a mine employing less than twenty-five men underground, unless he is the holder of a First or Second Class Mine Manager's Certificate of Competency or a certificate deemed by the Board of Examiners to be equivalent thereto;
- (c) act as Underground Manager of a mine employing more than twenty-five men underground unless he is the holder of a First Class Mine Manager's Certificate of Competency or a certificate deemed by the Board of Examiners to be equivalent thereto;
- (d) knowingly employ any person contrary to paragraphs (a), (b) or (c) of this regulation or to the provisions of section 25 of the Act.

Reg. 41.
Substituted
by G.G.
19/12/62,
p. 4049.
Amended by
G.G.
10/2/66,
p. 431.

Penalty—Forty Dollars.

Report of Serious and Repeated Breaches.

42. Underground managers, foremen and shift bosses shall, by entering them in the mine record book, report all serious and repeated breaches of the Act and regulations.

Register of Certificated Managers.

43. The Board shall cause to be kept, a register of all certificated mine managers showing their full names, dates of birth, serial numbers and dates of issue of certificates, whether they are certificates of competency by examination, reciprocal certificates of competency granted to holders of certificates from other States or countries or service certificates.

Heading
and Reg. 43.
Amended by
G.G.
30/9/57,
p. 2787.

PART IV.—EXPLOSIVES.

Explosives.

Reg. 44.
Amended by
G.G.
11/8/54,
p. 1081;
G.G.
30/9/57,
p. 2787.

44. (1) Explosives shall be stored in a main magazine, a distributing magazine, or a working party's magazine.

Magazines.

(2) A main magazine may be either—

- (a) a building on the surface of the ground at a distance of not less than one hundred yards from any other buildings, works, or a public road, surrounded by substantial mounds of earth at least four feet in thickness to a height level with the eaves of the building; or
- (b) an excavation in the ground so arranged that the roof shall not be less than fifteen feet below the surface of the ground; or
- (c) a drive or chamber in an upper level of the workings of the mine connected with the surface by an independent air pass; the passage connecting the magazine with the workings of the mine shall describe in its course at least one right angle, and the magazine shall be situated at a distance of sixty feet from any travelling road or underground thoroughfare, unless, in the opinion of the inspector, owing to the nature of the country, this distance may be reduced, but in no case shall the distance be less than thirty feet; or
- (d) a building approved by the Inspector of Explosives appointed pursuant to the provisions of the Explosives Act, 1895,¹ and licensed under those provisions.

Construction of Magazines.

(3) The construction, lining and ventilation of every main magazine shall be approved by the district inspector, and it shall be protected by doors so constructed and secured as to render it safe against unlawful entry.

Quantity Permitted.

(4) The quantity of explosives which may be stored in a main magazine constructed as provided in paragraph (a) of subregulation (2) of this regulation shall not exceed five hundred pounds, in paragraph (b) of subregulation (2) of this regulation, shall not exceed two thousand pounds, and in paragraph (c) of subregulation (2) of this regulation such quantity as is certified by the Inspector of Explosives, so appointed, not exceeding one week's supply, according to the requirements of the mine, together with such extra amount not exceeding one thousand pounds, as he may certify to be reasonable to provide for emergencies, and in paragraph (d) of subregulation (2) of this regulation, such quantity as is approved by the Inspector of Explosives so appointed.

Control of Main Magazine.

(5) Every main magazine shall be in charge of a person specially appointed for the purpose, who shall have in his possession the keys of the magazine and shall be responsible for the safe storage of explosives contained therein; and the distribution of all explosives from any distributing magazine shall be under the supervision of an authorised person, who may be one of the men at work in such level.

Explosives to be Removed.

(6) In the event of the closing of any mine, or part of a mine, the explosives stored therein shall be removed and disposed of as directed by the inspector.

¹ See Explosives and Dangerous Goods Act, 1961.

No Naked Lights in Magazines.

(7) No naked light shall be introduced into a magazine, or any excavation in a mine where explosives or inflammable substances are stored, and a proper lamp shall be provided for use in such places, and no charge shall be made up in such places.

Distributing Magazine.

(8) A distributing magazine may be situated in any working level of a mine, and shall consist of a drive or chamber at least thirty feet from any travelling road and separated therefrom by a door so placed and fitted as to render it secure from unlawful entry.

Quantity Permitted.

(9) The quantity of explosives allowed in a distributing magazine shall not exceed the supply required for forty-eight hours in the level in which the distributing magazine is situated.

(10) Every working party's magazine shall be situated at least 30 feet from any travelling way or such lesser distance as may be specified in writing by the District Inspector of Mines. All explosives stored therein shall be kept in containers approved by the District Inspector of Mines. Separate containers shall be used for capped fuses. Explosives shall be promptly removed to working party's magazines after delivery to the level.

(11) The quantity of explosives in a working party's magazine shall not exceed the amount required for 48 hours' work.

Explosives for Sale not to be kept in Mine Magazine.

(12) No "main magazine" or "distributing magazine" shall be used as a store for explosives kept for the purpose of sale, except for use within the mine.

Magazines on Mines.

45. Magazines on mines shall be subject to inspection and supervision by the Inspector of Explosives appointed pursuant to the provisions of the Explosives Act, 1895,¹ and for the purpose of inspection, the inspector of mines shall also have all the powers of inspectors under that Act.

Boys Not to Use Explosives.

46. (1) No boy under the age of eighteen years shall be allowed to handle, charge or fire explosives.

(2) No person employed in a mine shall be allowed to handle, charge, or fire explosives unless he satisfies the supervisor that he is competent to do so.

Handling of Explosives.

47. (1) No explosive shall be transported or stored except in securely covered cases, bags or containers of size and construction approved by the District Inspector of Mines.

Reg. 47.
Substituted
by G.G.
11/6/54,
p. 1081.

(2) Explosives shall not be taken into any working face in quantity exceeding that required for use during one shift in that face.

(3) Fuses which have detonators attached to them shall not be placed in the same container as other explosives.

Provided that where electric blasting is used primers may be made up in a magazine used solely for that purpose, approved by the District Inspector of Mines and conveyed to the working face in an approved bag, case or container and kept separate from any other explosives.

(4) No workman or party of workmen shall have in use at any time in any place more than the necessary receptacles for capped fuses, primers for electric blasting or other explosives.

¹ See Explosives and Dangerous Goods Act, 1961.

Detonators.

48. (1) Detonators, whether attached to fuses or otherwise, shall not be stored in a magazine containing other explosives, nor shall they be carried or placed in a receptacle containing other explosives.

(2) Detonators shall not be distributed below ground in the workings of a mine unless attached to fuse in the form of "rods". All fuses to be used for firing charges of explosives shall be prepared in daylight, or electric light, under cover, by being cut into required lengths with a sharp instrument, and detonators shall be placed on the fuse and crimped thereto by an approved tool. The distribution of capped fuses shall be undertaken in accordance with the provisions of subregulations (1) and (2) of regulation 47.

Igniters.

49. When igniting more than one fuse, other than electric fuses, in blasting operations, an approved type of igniter only shall be used. In so lighting fuses, care must be taken to avoid the possibility of any portion of the burning igniter falling into any of the holes or upon any of the fuses.

Safety Fuse.

50. (1) No safety fuse whose rate of burning is less than 80 or more than 100 seconds per lineal yard shall be used in any mine.

(2) The manager of every mine shall ascertain the rates of burning of the various sorts of fuse in use therein and shall take all necessary steps to have those rates made known to the men using the fuse, by posting on a notice board at the shaft head the rate of burning of each case, cask, or package of safety fuse in use.

(3) Not less than one coil from each cask, case, or package brought on to any mine shall be tested by burning before any of the contents of the cask, case, or package are allowed to be used for ordinary mining purposes.

Time of Blasting.

51. Subject to the provisions of the proviso to this regulation, the manager shall cause the times of working shifts and of blasting operations in every section of the mine to be so arranged that workmen shall not be exposed to fumes and dust from blasting:

Provided that—

- (a) blasting shall be allowed not earlier than fifteen minutes before the recognised crib time or the end of the shift;
- (b) with the consent in every case of the manager or the underground manager, blasting may be carried on at times other than those prescribed in paragraph (a) of this proviso for the purpose of removing obstructions in ore passes or box holes, or for the purpose of making the working safe, or for blasting misfired holes in the development faces;
- (c) with the consent in each case of the Senior Inspector of Mines, blasting may be carried on at times other than those prescribed in paragraph (a) of this proviso for the purpose of sinking shafts and in other special work not included in paragraph (b) of this proviso;
- (d) blasting shall not be carried on during crib time, unless and until the workmen have been removed to the intake side of all places where blasting is to be done and where the resultant smoke and dust will not affect them in the section where they congregate during crib time, and unless specially directed by the manager;
- (e) in any mine where ordinary mining operations are not undertaken during night shift, blasting may be carried on between the hours of midnight and seven o'clock a.m. next ensuing, notwithstanding anything to the contrary contained elsewhere in this proviso.

Use of Explosives.

52. (1) All nitro-glycerine explosives shall be charged into holes in the form of cartridge, and except in the case of primer cartridges, no person shall remove or interfere with the wrappers round the cartridges to be so used.

(2) In charging holes for blasting, no iron or steel tools shall be used in tamping or ramming, and an adequate supply of tools approved of for this purpose by the inspector shall be provided for use.

(3) Explosives shall not be forcibly pressed into any hole of insufficient size.

53. [*Repealed by G.G. 11/6/54, p. 1081.*]

Firing Warning to be Given.

54. No charge of an explosive shall be fired unless and until proper warning has been given in all adjacent workings whereby any person might approach within danger of the explosion.

Assistance, When Firing More Than Three Charges.

55. When more than three fuses are being ignited at one time in any working face in a mine, the person firing shall have the assistance of another man, but when both men cannot retire together from the firing point without impeding one another, the second man shall retire to a safe position immediately before the fuses are lighted, but shall not leave the vicinity until he knows that the firer has reached a place of safety.

Method of Firing Charges.

56. (1) In mining operations where more than one charge is to be exploded, the cartridge method shall be used, with a master fuse to ignite the fuses in the cartridge; or some other method, approved by the Minister, which reduces to a minimum the number of fuses to be lit by hand at any one time.

(2) In shaft sinking, winzing and rising, not more than three fuses shall be lit at the same time.

(3) In driving, crosscutting, and work carried out in all other development places, not more than four fuses shall be lit at any one time.

(4) In stoping, no charge shall be fired without the use of a cartridge and master fuse.

(5) No master fuse shall be less than six feet in length, and no ordinary fuse shall be less than three feet in length.

(6) The provisions of subregulations (1) to (4) of this regulation shall not apply when popping rocks or cutting hitches provided that not more than four fuses are lit.

(7) The provisions of this regulation shall not apply where electric blasting is employed.

57. (1) Electricity from lighting or power cables may only be used for firing shots provided that—

(a) the voltage used shall not exceed 250 volts;

(b) separate shot-firing cables shall be used, suitable for the conditions under which blasting is carried out and adequately protected from coming into contact with lighting and power cables;

(c) shot-firing cables shall be isolated from the source of power by means of a double throw switch by means of which the cables, when disconnected from the source of power, shall be short-circuited and earthed;

Reg. 57.
Amended by
G.G.
11/6/54,
p. 1081;
G.G.
1/8/62,
p. 2093.

- (d) the isolating switch shall be housed in a box with a locked door, and the key shall not under any conditions, pass, from the personal custody of the shot-firer on duty;
 - (e) shot-firing leads shall be connected to the firing cables through two pin plugs fitted to appropriate bases connected to the firing cables;
 - (f) the shot-firing cables shall not be connected to the source of power until the men have been removed to a safe place.
- (2) When an exploder is used, the exploder, fuses and wires shall be suitable for the conditions under which the blasting is carried out.
- (3) Only competent persons who have been properly instructed in the work and duly authorised by the manager in writing shall be allowed to fire shots electrically in any part of a mine.
- (4) The exploder shall be in charge of the shot-firer, and shall be fitted with a handle or key, which shall be detached when not required for firing, and shall not under any conditions pass from the personal custody of the shot-firer whilst on duty.
- (5) The exploder shall not be connected to the shot-firing cable until all other steps preparatory to the firing of the shot have been completed, and all persons have been removed to a place of safety.
- (6) No testing meter shall be used at the face unless it has been branded by the Chief Inspector of Explosives to indicate that it is safe for use.
- (7) Immediately after the firing of the shot the firing cable shall be disconnected from the exploder or the source of electric power, and no person shall approach a charge which has failed to explode after attempting to fire it by electricity until the firing cable has been so disconnected and an interval of five minutes has elapsed since the last attempt to fire the shot.

Misfires.

Reg. 58.
Amended by
G.G.
4/11/49,
p. 2807;
G.G.
20/8/54,
p. 1477.

58. (1) When using explosives in any mine, the men charging and firing the explosives shall be jointly and severally responsible for the proper handling and firing thereof, and when relieved from duty shall forthwith report the position of any charged holes and misfires to the men relieving them and to the shift boss or manager, who shall record such fact in a record book. When holes are known to have missed fire a barricade or other obstruction shall be placed so as to notify the fact of such misfire.
- (2) A charge which has missed fire shall not be approached until one hour has elapsed from the time of lighting the fuse. The provisions of this subregulation shall not apply to charges fired by an electric current, provided the conducting wires are first disconnected. (See Regulation 57 (7).)
- (3) Whenever a misfire has occurred, no work shall be done at the working face on which such misfire has occurred, until the shift boss in charge of the workmen working at that face shall inspect, or delegate some other experienced person to inspect at that face and take such action as shall be necessary to ensure that further work can be safely continued. A record of the inspection and of the action taken shall be recorded in the record book at the end of the shift by the Official or delegated person making the inspection.
- (4) No drilling shall be carried out in any face until the face has been washed down, butts washed and cleaned and the face examined for any misfires.
- (5) A charge of explosive which has missed fire shall be reprimed and fired.

Recharging Holes.

59. No hole which has been fired shall be recharged until it has been thoroughly cooled or washed out with water, an adequate supply of which shall be made readily available.

Holes not to be Bored in Butts.

60. No hole shall be bored in the butt or the remaining portion of a hole in which a charge of nitro-glycerine compound has been previously exploded.

PART V.—SAFETY AND PROTECTION.

Men Working Alone.

61. In every mine where there are men employed underground who are working alone they shall be in frequent communication with or within easy hearing of other employees, unless otherwise approved by the inspector. The inspector may prescribe conditions for the better protection against accidents of men working alone.

Reg. 61.
Amended by
G.G.
11/3/54,
p. 1082.

In dangerous ground, no workman shall be employed alone. Men working together in dangerous ground shall at all times be able to see one another.

Lights in Working Levels, Etc.

62. (1) A suitable light, protected from draughts of air, shall be provided at the plat of every level where men are employed, and at the upper entrance to every winze, chute, or pass situated on the level, while open or unfenced.

(2) Where electric power is available on any mine, electric lights shall be placed on the plat of every level where men are employed.

Wilful Damage.

63. No person shall wilfully or through negligence damage, or without proper authority use, remove, or render useless any timber, fencing casing, lining, guide, means of signalling, signal cover, chain, flange, horn, brake, indicator, ladder, platform, steam gauge, water gauge, safety valve, ventilating apparatus or other appliance or thing provided in a mine.

Rises in Mines.

64. Rises of more than thirty feet in height shall not be made in any mine unless the sanction of the District Inspector of Mines has been first obtained; the sanction shall be in writing, and may impose conditions under which the work shall be carried out, and may at any time be cancelled or altered by the District Inspector at his discretion.

Box Method of Rising.

65. Where the angle of inclination of any rise is sixty degrees or more from the horizontal, and where it is intended to rise to a distance of more than thirty feet above the recognised back, the rise shall be divided into at least two compartments, and no such rise shall be constructed to a greater height except by such system, nor shall its cross-sectional area be less than twenty-five square feet.

Penthouses.

66. (1) When any shaft is being sunk below levels therefrom which are being worked, it shall be protected below those levels by a securely constructed penthouse to the satisfaction of the inspector; and when considered necessary by the inspector, further penthouses shall be constructed in that or any shaft, and penthouses shall forthwith be constructed in any shaft after he has given instructions to that effect.

(2) Before sinking operations are commenced, the manager shall notify the inspector that the penthouse has been completed, and the inspector shall make an inspection for its security.

Fencing of Entrance to Shafts.

67. The top and all entrances between the top and bottom of every working or pumping shaft shall be properly and securely fenced or covered, but this provision shall not be taken to forbid the temporary removal of a fence for the purpose of repairs or other operations, if proper precautions are used.

Braces and Tramways to be Fenced.

68. All elevated braces, tramways and the platforms at the sheaves of headframes shall be securely fenced.

Reg. 68.
Amended by
G.G.
11/6/54,
p. 1082.

Temporary Removal of Fence from Shaft.

69. When a fence has been temporarily removed from an entrance to a shaft to admit of the carrying on of ordinary mining operations, a strong horizontal bar shall be securely fixed across the entrance not less than three nor more than four feet from the floor of the brace, chamber, or drive as the case may be.

Drive and Excavation to be Protected.

70. Every drive, winze, rise, or stope, and every excavation of any kind, whether at surface or underground, in connection with the working of a mine shall be securely protected and made safe for persons employed therein.

Winzes.

Reg. 71.
Amended by
G.G.
4/11/49,
p. 2807.

71. (1) Every winze shall be sunk clear of the travelling way if practicable.

(2) No charge shall be fired in a winze or shaft, nor in any working from a winze or shaft, unless an air hose or air pipe has been installed to discharge compressed air to the bottom of the winze or shaft, or to the face of any working from the winze or shaft, and secured in a manner approved by the inspector. The discharge end of the hose or pipe shall be secured so as to discharge air at 20 feet from the bottom or working face. Any variation from the distance of 20 feet must have the sanction of the inspector. The master valve controlling the supply of air to a winze or shaft, or to any intermediate workings within 20 feet of the winze or shaft shall be situated at the brace or top of the winze or shaft, and no other valve shall be allowed in the winze or shaft except by permission in writing of the inspector. This regulation shall not apply to winzes or shafts or intermediate workings having a through current of ventilation.

Boring Rods to be used where Dangerous Amount of Water.

72. In every working in a mine approaching a place likely to contain a dangerous accumulation of water, bore holes shall be kept in advance of the face, and at such angle from the working as may be necessary to ensure safety; and no drive, gallery, or other excavation shall be made within a dangerous distance of the accumulation of water or gas until the ground has been so tested. No rise shall be allowed to approach within 10 feet of any portion of a winze in which there is a dangerous accumulation of water, unless the winze is first unwatered by bailing or pumping, or by means of a bore from the rise.

Additional Rises, etc., to be Constructed if Required.

73. If required by the Minister to ensure the safety or good health of the workmen employed, additional rises, winzes, chambers, drives, or other workings shall be constructed.

Clearing Passes and Chutes.

74. (1) When any pass underground, which has an angle of inclination greater than forty-five degrees from the horizontal, has become obstructed or jammed with ore, rock, mullock, or sand "hung up" in it, no person shall go up into it beneath that ore, rock, mullock, or sand, for the purpose of examining, blasting, or freeing the obstruction, or for any other purpose.

(2) When any chute or opening used for drawing off ore from stopes, worked on the shrinkage system, or ore, mullock, rock, or sand from stopes in which such material has been used for filling, has become jammed or obstructed with ore, rock, mullock, or sand "hung up" in it, no person shall go up into it beneath the obstruction unless and until all other practicable means have been exhausted for causing the ore, rock, mullock, or sand to run or

become free. The state of the chute or opening shall then be reported to the manager or person for the time being in charge of the underground mining work, who shall be responsible for the methods adopted for freeing it.

Ropes to be Supplied on all Rills and Slopes.

75. (1) On every rill or slope on or about which men are working, a rope shall be supplied and maintained for the use of the workmen, together with a safety belt where necessary.

(2) No person shall go into any pass or bin, either on the surface or underground, on top of broken ore or other material unless he is wearing a safety belt and rope.

Safety Helmets.

76. (1) On every mine where men are employed underground, the owner, or his agent or manager on his behalf, shall cause to be supplied to each man so employed, a safety helmet of a type approved by the Minister, and the helmet shall be worn by the employee while employed underground in the mine.

(2) The owner, or his agent or manager on his behalf shall, without cost to the employee, replace such helmet when necessary, provided that the replacement is not the result of wilful damage caused by the employee, or loss, in which case the employee himself shall pay for the replacement.

(3) The helmet supplied or replaced by the owner, or his agent or manager on his behalf, or replaced by the employer shall, at all times, remain the property of the owner.

Safety Belts in Winzes and Shafts.

77. In all shafts and winzes having an inclination of more than 60 degrees from the horizontal where men are raised or lowered in kipples safety belts shall be provided by the owner or his agent or manager; and shall be worn by all men who are raised or lowered in such kipples.

Reg. 77.
Substituted
by G.G.
11/8/54,
p. 1082.

Signalling in Winzes.

78. No verbal communication shall be made up and down any winze exceeding 50 feet in depth and, when hoisting appliances are utilised, a knocker line or other contrivance approved by the inspector shall be provided in every such winze to enable signals to be communicated to the driver from every part of the winze.

Raising and Lowering Tools.

79. Tools shall not be raised or lowered in any winze or other confined place in which men are working, except in a bucket or other approved receptacle, and any projecting tool shall be secured so as to prevent it falling out of such bucket or receptacle.

Aid to Injured Persons.

80. Where more than twenty men are ordinarily employed underground, ambulances or stretchers, and surgical requisites shall be kept at the mine ready for immediate use in case of accidents. A man qualified in first aid shall be employed on the mine where practicable.

First Aid Outfit.

81. (1) Where any men are employed at a mine, whether underground or on the surface, an adequate first aid outfit shall be kept on the mine for immediate use in case of accidents.

(2) The nature, quality and adequacy of the first aid outfit kept on a mine in compliance with the last preceding paragraph, and the nature, quality and adequacy of the ambulances or stretchers and surgical requisites kept on a mine in compliance with the provisions of the last preceding regulation shall, at all times be subject to the approval of an inspector of mines.

(3) Any requisition in relation to any of the matters referred to in the last two preceding subregulations made in writing under the hand of an inspector, and given to any person liable to comply with the provisions of subregulation (1) of this regulation or the last preceding regulation, shall be binding upon that person, and he shall forthwith observe and comply with the requisition.

(4) Small dressings and disinfectant approved by the inspector shall be made available at all shafts where work is in progress in a mine.

Safety Belts.

82. Where instructed by the inspector, men working on the faces and summits of open cuts and quarries, exceeding ten feet in depth or open stopes or similar workings, shall be provided with safety belts and sufficient ropes, securely fixed for the attachment of those belts. Any person neglecting to wear a belt so provided shall be guilty of a breach of this regulation.

Workers in Shrink Stopes to be Notified Before Ore is Drawn off.

83. Where stopes are worked on the shrinkage system, no ore shall be drawn off until the men working in the stope above have been notified of the intention to draw off ore.

PART VI.—LADDERS AND TRAVELLING WAYS.

Manholes to be Provided in Self-acting or Engine Planes.

84. Every underground plane on which persons travel, whether self-acting or worked by an engine, whim, or whip, shall, if exceeding 40 yards in length, be provided with some proper means of signalling between the stopping places and the ends of the plane, and shall be provided in every case, at intervals of not more than 20 yards, with sufficient manholes for places of refuge.

Spaces in Horse Roads.

85. Every road on which persons travel underground, where the produce of the mine in transit exceeds ten tons in any one hour over any part thereof, and where the load is drawn by a horse or other animal or by mechanical means, shall be provided, at intervals of not more than one hundred yards, or as instructed by the inspector, with sufficient spaces for places of refuge, each of sufficient length, and of at least three feet in width between the wagons running on the tram road and the side of the road.

Keeping Spaces Clear.

86. Every manhole and space for place of refuge shall be constantly kept clear, and no person shall so place anything in such manhole or space as to prevent access thereto.

Securing of Shafts.

87. Where the natural strata are not safe every ladder, working or pumping shaft shall be securely timbered, lined, or otherwise made secure.

Division of Shafts.

88. Where one portion of a shaft is used for the ascent and descent of persons by ladders or a cage or skip, and another portion of the same shaft is used for raising material, the former portion shall be cased or otherwise securely fenced off from the latter portion.

Ladders and Footways to be Provided.

89. In every pit, winze or shaft in which men are working, a proper ladder or footway shall be provided unless there exists some other safe means of exit.

Shafts with Ladders to have Platforms.

90. Every ladder constructed and fixed in a shaft for the ascent and descent of persons working in the mine shall be inclined at the most convenient angle which the space allows and such ladder in any shaft or part of a shaft shall have substantial platforms at intervals of not more than thirty feet and spaces for foothold of not less than six inches. The ladders shall project at least two feet above the platform or, should this be impracticable, hand grips shall be provided at the top of each ladder. In every shaft or part of a shaft sunk before the coming into operation of the Act in which the ladders do not comply with the foregoing provisions of this regulation, any parts of the ladderway which are repaired, shall be altered so as to comply therewith, and all such ladderways shall be kept in a safe condition.

Ladders in Winzes, etc.

91. Ladders or other means of ascent equivalent thereto shall be provided in winzes and rises in course of construction, and while used as travelling ways to give access from the lower to the higher levels in a mine; and in sinking shafts or winzes or rising a chain or other form of ladder securely fastened to bearers at intervals not greater than 15 feet, shall be provided so as to ensure a safe means of exit.

In sinking box timbered shafts, the ladders shall be hung in the compartment through which men are hoisted.

PART VII.—WINDING AND SIGNALS.

Machinery when the Means of Egress to be Kept Ready for Use.

92. When the usual means of egress from a mine is a machine worked by steam, water or mechanical power, such machine shall always be kept ready for use and the person in charge thereof shall so remain in charge whilst any person is below in the mine.

Driver to Remain in Charge of Machinery Until Relieved.

93. No person placed in charge of or having control of any engine or winch driven by steam, air, gas, oil or electricity used in connection with the working of a mine shall, under any pretext whatever, unless relieved by a competent person, absent himself or cease to have effective supervision during the time such machinery is required to be used.

Medical Examination of Winding Drivers.

Schedule, Form No. 11.

94. (1) Except when exempted pursuant to the provisions of subsection (5) of section forty-six of the Act, every person in charge of a winding engine or hoist, except hoists that are excluded from the application of that section by subsection (4) thereof, used for raising or lowering of men or materials shall present himself to a medical practitioner registered pursuant to the provisions of The Medical Ordinance, 1869, or those of the Medical Act, 1894-1946¹, for medical examination in the month of June, or as required by the medical practitioner, or before taking charge of a winding engine if more than twelve months have elapsed since his previous medical examination, and shall forward to the State Mining Engineer within seven days thereafter on the Form No. 11 in the Schedule to these regulations a medical certificate stating that such person is not suffering from deafness, defective vision, epilepsy, disease of the heart, diabetes, or other physical infirmity to such an extent as would, or would be likely to render him unfit for his duties or liable to become suddenly incapable of controlling his engine.

Reg. 94.
Amended by
G.G.
11/6/54,
p. 1082;
G.G.
29/4/58,
p. 778;
G.G.
19/12/62,
p. 4050;
G.G.
10/2/66,
p. 431.

¹ Now Medical Act, 1894-1968.

(2) On receipt of each medical certificate the State Mining Engineer shall cause an acknowledgment to be sent to the engine driver, who shall retain it for production when so required by a duly authorised person.

(3) Any engine driver who, in the opinion of a medical practitioner so registered, is not in a fit state of physical health to have charge of a winding engine, shall not take such charge.

(4) Any engine driver who does not comply with or contravenes the provisions of this regulation, and any manager who employs such an engine driver, shall each be liable to a fine not exceeding forty dollars.

Indicators.

95. A clear view shall be kept for the engine driver between his station and the shaft at the brace, or, in lieu thereof, indicators shall be provided, which will efficiently provide for safety.

Limits of Age for Lander or Braceman.

96. No person under the age of 18 years shall be employed as lander or braceman on any mine.

Posting up Maximum Number of Men allowed in One Cage.

Reg. 97.
Amended by
G.G.
4/11/49.
p. 2807.

97. (1) Notice of the maximum number of men permitted to ride at one time on a cage or skip shall be posted up and kept so posted up in legible characters at the surface brace.

(2) No person shall be raised or lowered in an ore skip in a vertical shaft unless standing on the bottom of the skip, or on a platform provided for the purpose unless otherwise authorised in writing by the District Inspector.

No Person to Speak to Driver.

98. No person shall speak to the driver of a hoist or winding engine while his machine is in motion, except for the purpose of stopping the hoist or engine in an emergency.

Control of Speed.

Heading
and Reg. 99.
Substituted
by G.G.
19/12/62,
p. 4050.
Erratum
G.G.
22/2/63,
p. 737.

99. No cage or skip in which men are travelling shall be accelerated or decelerated at a rate greater than 2.5 feet per second, except in cases of emergency.

Material not to be Raised or Lowered in the Same Cages as Men.

Reg. 100.
Substituted
by G.G.
29/8/65.
p. 1933.

100. (1) A person shall not travel, in a shaft or winze, in or on any cage, skip, carriage, receptacle or platform, carrying, timber, pipes, rails, ore, waste rock or similar material, or tools, unless authorised in writing by the District Inspector of Mines so to do.

(2) This regulation does not apply to—

- (a) a person repairing a shaft;
- (b) subject to subregulation (3), a platman;
- (c) a person carrying small tools in a suitable bag or container; or
- (d) a surveyor travelling with his instruments.

(3) A platman shall not—

- (a) travel with any material that is insecurely fastened; or
- (b) travel upwards with drill steel, pipes or material or similar form.

Gates to Cages.

101. (1) The Manager shall ensure that a securely fastened gate, or gates, is or are used on every cage in which a person is travelling, and that provision is made to prevent the feet of any person from protruding outside the cage.

Reg. 101.
Substituted
by G.G.
29/6/65,
p. 1933.

(2) At change of shift, every person appointed by the manager for that purpose is responsible for the safe ingress and egress of men, and for the proper fastening of the gate or gates.

Guides in Shafts.

102. In every vertical shaft in the course of being sunk in which men are raised by machinery, other than machinery operated by hand labour, guides approved by the inspector shall be provided to within not more than sixty feet from the bottom of the shaft, and there shall be provided and used efficient means and appliances for steadying the load.

Bearers to be Approved.

103. When bearers are used at plats in shafts to support cages or skips, they shall be of a pattern approved by the inspector.

Slipping of Rope on Drum.

104. Every machine used for lowering or raising persons shall be fitted with flanges or horns on the drum and, if the drum is conical, with other appliances sufficient to prevent the ropes from slipping.

Brake and Indicator.

105. (1) Every machine used for raising and lowering persons shall be fitted with an adequate brake and in the case of a machine exceeding twenty horse power, an indicator showing the person who works the machine, the position of the cage or load in the shaft in conformity with the regulations under the Inspection of Machinery Act.

Reg. 105.
Amended by
G.G.
4/11/49,
p. 2808;
G.G.
29/6/56,
p. 1656;
G.G.
19/12/62,
p. 4050.

(2) (a) Neither men nor materials shall be lowered by means of the brake alone.

(b) No person shall enter or remain in any cage or skip held or suspended by the brake alone.

Cover Overhead.

106. (1) A sufficient cover overhead securely hung on hinges shall be provided on every cage and skip used for lowering or raising persons in a working shaft.

Reg. 106.
Amended by
G.G.
4/11/49,
p. 2808;
G.G.
11/6/54,
p. 1082.

(2) When shaft repairs are being carried out, a hood of a type approved by the inspector shall be fitted for the protection of the workmen.

Safety Catches to be Fitted on Cages Used for Raising and Lowering Men.

107. Every cage or skip used in a shaft for raising or lowering men shall when required by the inspector, be fitted with side catches, and with special and suitable appliances to prevent its sudden fall down the shaft and also with a safety hook with suitable detaching appliances fixed to the head frame; and no safety hook shall be used that will not suspend a cage at the head frame when detached from the rope. Within six months of the publication of this regulation in the *Gazette*, all safety hooks shall be fitted with a testing hole or other approved testing device.

Reg. 107.
Amended by
G.G.
4/11/49,
p. 2808.

Safety Cages, etc., to be Tested.

108. Safety cages or safety skips shall be tested according to the requirements of the inspector, and shall not be used until provided with all such appliances as are required by him, and unless they are in good working order and condition. The manager, or

other duly qualified person appointed by him, shall test the skips and cages at least once in every two weeks, and enter the result in the record book.

Reg. 108A.
Added by
G.G.
22/2/57,
p. 405.

108A. Any accident in a mine arising from the incorrect operation of, or causing damage to, the winding rope or its attachments, detaching gear, or safety catches, or the shaft timbers, guides or runners, or the headframe, shall be reported by the manager for the time being of the mine to the District Inspector of Mines within twenty-four hours after the occurrence of the accident.

Examination of Safety Hooks.

109. All safety hooks shall be examined daily, cleaned and oiled weekly, and taken to pieces once, at least, in every six months by a competent person, who shall record the fact in the record book.

Over-run in Shafts.

110. In all headframes constructed after the publication of this regulation in the *Gazette*, the distance from the detaching plate to the detaching hook, when the cage or skip is in its highest working position, shall not be less than ten feet.

Underground Winches.

111. Every winch operated by electricity, steam, air, or other power used for haulage underground, shall be provided with a pressure gauge or other suitable device in proper working order to indicate to the person in charge that power is available. In no case shall the electricity, steam, air, or other motive power used underground be cut off unless and until it is safe to do so.

Skip or Cage to be Supported during Repairs to Winding Engine.

Reg. 111A.
Added by
G.G.
16/9/49,
p. 2303.

111A. On all occasions when repairs are being effected to the clutches or brakes of a winding engine and where ropes are attached to the drums, the skip or cage shall be removed or firmly supported while the work is in progress.

Testing Winding Engines After Repairs.

112. After any stoppage for repairs which might by any possibility affect the safe running of the engine, and after any stoppage for any other purpose which shall exceed one hour in duration, the winding engine shall not be used for raising or lowering persons until the cage, skip, or other means of conveyance has been run at least one complete trip up and down the working portion of the shaft.

Signalling.

113. Every working shaft in which a cage or skip is used, and every division of such shaft in which persons are raised or lowered, shall be provided with some proper means of communicating distinct and definite signals—

- (a) from the bottom of the shaft and from every entrance, for the time being, in work between the surface and the bottom, to the engine room; and
- (b) unless exempted in writing by the Minister as being impracticable in the circumstances of the case, from the engine room to the surface and to the bottom of the shaft, and to every entrance, for the time being in work between the surface and the bottom of the shaft.

Code of Signals.

Reg. 114.
Amended by
G.G.
16/11/51,
p. 3161;
G.G.
10/7/53,
p. 1345.

114. (1) All methods of signalling in mines to indicate that men or materials are to be raised or lowered shall be clear and distinct.

Where knocker lines, buzzers, or bells are used, signals shall be in accordance with the following code:—

Knocks or Rings.	Shall Signify.
1	Stop, if the cage, skip or bucket is in motion.
1	Hoist.
2	Lower.
3	Change to hoist from a different level. (This signal shall not be given while the cage is in motion.)
4	Men on, hoist to surface.
5	Danger signal. The cage must not be worked until further signals are given by ringing eight knocks or rings, which shall signify that the cage is again free.
6	Tools on cage. The cage shall not be moved on this signal, which must be followed after a pause by the signal for the place to which the tools are to be sent.
8	(See 5 above. Cage again free.)
12	Accident. To be followed, after a pause, by the signal for the level at which the accident has taken place.

Sec. 1—

1 pause 1	To No. 1 level. Raise or lower cage, as case may be.
1 pause 2	To No. 2 level. Raise or lower cage, as case may be.
1 pause 3	To No. 3 level. Raise or lower cage, as case may be.
1 pause 4	To No. 4 level. Raise or lower cage, as case may be.
1 pause 5	To No. 5 level. Raise or lower cage, as case may be.

Sec. 2—

2 pause 1	To No. 6 level. Raise or lower cage, as case may be.
2 pause 2	To No. 7 level. Raise or lower cage, as case may be.
2 pause 3	To No. 8 level. Raise or lower cage, as case may be.
2 pause 4	To No. 9 level. Raise or lower cage, as case may be.
2 pause 5	To No. 10 level. Raise or lower cage, as case may be.

Sec. 3—

3 pause 1	To No. 11 level. Raise or lower cage, as case may be.
3 pause 2	To No. 12 level. Raise or lower cage, as case may be.
3 pause 3	To No. 13 level. Raise or lower cage, as case may be.
3 pause 4	To No. 14 level. Raise or lower cage, as case may be.
3 pause 5	To No. 15 level. Raise or lower cage, as case may be.

Sec. 4—

4 pause 1	To No. 16 level. Raise or lower cage, as case may be.
4 pause 2	To No. 17 level. Raise or lower cage, as case may be.
4 pause 3	To No. 18 level. Raise or lower cage, as case may be.
4 pause 4	To No. 19 level. Raise or lower cage, as case may be.
4 pause 5	To No. 20 level. Raise or lower cage, as case may be.

Sec. 5—

5 pause 1	To No. 21 level. Raise or lower cage, as case may be.
5 pause 2	To No. 22 level. Raise or lower cage, as case may be.
5 pause 3	To No. 23 level. Raise or lower cage, as case may be.
5 pause 4	To No. 24 level. Raise or lower cage, as case may be.
5 pause 5	To No. 25 level. Raise or lower cage, as case may be.

Sec. 6—

6 pause 1	To No. 26 level. Raise or lower cage, as case may be.
6 pause 2	To No. 27 level. Raise or lower cage, as case may be.
6 pause 3	To No. 28 level. Raise or lower cage, as case may be.
6 pause 4	To No. 29 level. Raise or lower cage, as case may be.
6 pause 5	To No. 30 level. Raise or lower cage, as case may be.

Sec. 7—

7 pause 1	To No. 31 level. Raise or lower cage, as case may be.
7 pause 2	To No. 32 level. Raise or lower cage, as case may be.
7 pause 3	To No. 33 level. Raise or lower cage, as case may be.
7 pause 4	To No. 34 level. Raise or lower cage, as case may be.
7 pause 5	To No. 35 level. Raise or lower cage, as case may be.

Sec. 8—

- 8 pause 1 To No. 36 level. Raise or lower cage, as case may be.
- 8 pause 2 To No. 37 level. Raise or lower cage, as case may be.
- 8 pause 3 To No. 38 level. Raise or lower cage, as case may be.
- 8 pause 4 To No. 39 level. Raise or lower cage, as case may be.
- 8 pause 5 To No. 40 level. Raise or lower cage, as case may be.

N.B.—All signals from level to level and surface to level, shall be regarded as meaning that men are being raised or lowered, and the engine-driver shall drive accordingly.

Signal when Firing Adjacent to Shaft.

When blasting at or adjacent to a shaft, the sinking signal (7 knocks or rings firing warning) to be used in all cases. When everything is again clear the clearing signal of 8 knocks or rings shall be given. These signals shall be given by the person in charge of the cage at the time.

Sinking Signals.

When winding from the bottom of the shaft directly to the top thereof by means of the main winding engine, or—

When winding from the bottom of the shaft to a station underground therein by means of a winch or other auxiliary winding engine—

Knocks or Rings.	Shall Signify.
7	Firing warning.
1	Hoist, men on.

Upon receiving the signal 7 (firing warning) the engine driver of such main or auxiliary engine shall raise the bucket or cage by giving his engine not less than one full revolution, and shall then lower it again as a signal that he is ready to hoist. He shall then stand ready at his engine until he receives the signal 1 on which he shall hoist carefully. *He shall not return the signal 1 before hoisting.*

Return Signals.

On receiving any signal except as provided in the last preceding paragraph or the signal (one knock) to stop, the engine driver shall, before beginning to wind, give return signals, repeating the signals as received by him.

When sinking is in progress by means of a winch or other auxiliary winding engine working from a station underground in the shaft, the firing warning shall be repeated from such station to the person in charge of the main winding engine at the top of that shaft, and that person shall return his signal.

Repairing Shafts.

When men are engaged in any shaft repairing or timbering it, special notice shall be given to every engine driver who comes on duty on the winding engine. The signals 1, hoist, and 2, lower, shall then be taken as meaning that men are to be raised or lowered, and the winding shall be done slowly and with great care.

Pause.

The pause between signals in the above code shall be the space of time required for ringing two knocks. The engine driver shall not move the cage, skip, or bucket after receiving any signal (except that of "hoist" when firing) for at least two pauses when hoisting or lowering materials, and at least six seconds when raising or lowering men.

(2) A copy of the signal code shall be posted in clear and legible form at each plat, at the collar of the shaft and in the engine room.

(3) No verbal communication shall be made up or down any shaft exceeding 50 feet in depth where cages or skips are used except through telephones or speaking tubes properly fitted and isolated in a compartment not used for hoisting.

Certain Employees to Know Signals.

115. Every person employed underground in a mine shall make himself acquainted with the code of signals.

No person shall be employed as a winder, driver, platman, skipman, braceman or lander in any mine unless and until before being so employed he satisfies the manager that he has such knowledge of the code and system of signals as is prescribed by these regulations, and of his duties and obligations under the provisions of the Act and these regulations as will enable him properly to use and understand the code and system of signals, and to perform efficiently his duties and obligations in that employment.

Wrong Signals.

116. No person shall give or cause to be given any wrong signal, or ride upon any cage or skip at a time when signals have informed the driver that no person is so riding.

Hoists and Similar Hoisting Appliances.

117. (1) Except when in charge of scraper hoists, no person shall take charge of a hoist not exceeding 20 horsepower for temporary winding purposes until he has been examined by the manager or some competent person appointed by him in writing for the purpose, and a winding or first class certificated engine driver by a thorough practical trial in the use of the machine and has received from them a certificate that he is thoroughly competent and fit to have charge of it.

Reg. 117.
Amended by
G.G.
30/12/63,
p. 4053.

(2) A duplicate of every such certificate shall be sent by the manager to the inspector forthwith after issue thereof.

(3) Such certificate shall state the name of the person in full to whom it is issued, his address, his place of birth, his age, the name of the mine and mine owner, the date and place of issue and shall be signed by the persons examining him, and the holder shall sign his name on both the original and the duplicate certificate in the presence of the manager, or of the person appointed by him to conduct the examination, who shall certify that the signature is that of the person examined by him, and to whom the certificate is issued.

(4) The inspector may, at any time, cancel any such certificate, if he can show cause that the holder should not be entrusted with the charge of such machine and the holder shall, on demand, deliver his certificate to the inspector for cancellation.

(5) Any person taking charge of such machine without a certificate and any owner, agent, or manager knowingly allowing any such person to take charge of it shall each be guilty of a breach of the provisions of this regulation.

(6) Persons shall not be lowered by such hoists by the brake alone.

(7) No person under the age of twenty-one years shall be issued with a hoist driver's certificate other than for servicing.

Winding Engines.

118. (1) No person other than a properly certificated engine driver, the holder of a hoist certificate or a person exempted by the Minister from the provisions of section forty-six of the Act shall take charge of any winding engine less than 20 horsepower unless he holds a certificate signed by the Minister that he is competent to drive such engine.

Reg. 118.
Amended by
G.G.
4/11/49,
p. 2808;
G.G.
30/12/63,
p. 4053;
G.G.
10/2/66,
p. 431.

(2) Applications for certificates shall be made in writing on the form No. 12 in the schedule to these regulations by the applicant personally to the inspector for the district in which the machinery to be operated is situated.

(3) The application shall state the name in full and address of the applicant, the length of his experience with machinery and the nature of his experience, the length of time during which he has had experience in working the particular machinery in respect of which the certificate is required and shall give a full description of such lastmentioned machinery.

(4) Each application shall be accompanied by a fee of one dollar (\$1) which shall be due and payable by the applicant for the certificate. Should the application be refused the fee will be returned to the applicant.

(5) Certificates issued shall be subject to revocation by the Minister at his discretion.

(6) The currency of certificates shall be six months from the date of issue.

Certificate of Exemption.

119. (1) Every application for exemption under subsection (5) of section forty-six of the Act, shall be made in writing on the form No. 12 in the schedule to these regulations by the applicant personally to the inspector for the district in which the machinery is situated for the driving of which, exemption is desired.

(2) The application shall state name in full and address of the applicant, the length of his experience with machinery and the nature of such experience, the length of time during which he has had experience in working the particular machinery in respect of which the exemption is desired, and shall give a full description of such lastmentioned machinery.

(3) Each application shall be accompanied with a fee of one dollar (\$1) which shall be due and payable by the applicant for a certificate of exemption. Should the application be refused, the fee will be returned to the applicant.

(4) Every certificate of exemption issued by the Minister is subject to revocation at his discretion should he become convinced that the person to whom it was granted is incapable or in any way unsuitable to have such granted to him or that there has been a breach of any of the conditions on which the exemption was granted, or that in the circumstances, the employment of a certificated engine driver is necessary.

Winding Ropes.

120. (1) When a winding rope is used for the transport of men in a shaft whose depth exceeds 2,000 feet, the load on the rope, exclusive of the self-weight of the rope, shall not exceed one twelfth of the certified breaking strain of the rope when new.

(2) When a winding rope is used for the transport of ore or materials in a shaft whose depth exceeds 2,000 feet, the load on the rope, exclusive of the self-weight of the rope, shall not exceed one tenth of the breaking strain of the rope when new.

121. Where the depth of the shaft is not greater than 2,000 feet, the working load, including the self-weight of the rope, shall not exceed one eighth of the breaking strain of the rope when new, when men are being hauled, nor one sixth of the breaking strain when new when materials are being hauled.

122. Ropes used for winding shall be reshod at least every six months, or at shorter intervals, if required by the inspector. The portion of rope cut off at the lower end shall not be less than half the circumference of the head sheave. Should the inspector so require, portion of the rope shall be tested pursuant to the provisions of regulation 125 of these regulations.

123. If the breaking strain of the rope as determined by test is less than 75 per cent. of the breaking strain of the rope when new, or if, after inspection or test or both by the inspector, the rope is considered to be unsafe, it shall be condemned by the inspector.

124. Before a rope which has previously been in service can be used for any other winding purpose, the complete history of the rope and the details of the proposed duty shall be submitted to the district inspector and his approval obtained before the rope is used for that duty.

Reg 124.
Amended by
G.G.
4/11/49,
p. 2808.

Testing of Ropes.

125. (1) Before any winding rope is placed in service in a mine the owner, agent, or manager shall deposit with the district inspector a true copy of the maker's certificate giving full details of the construction of the rope, the class of steel used, and the breaking strain of the rope.

Reg. 125.
Amended by
G.G.
4/11/49,
p. 2808.

(2) If the district inspector is not satisfied that the maker's certificate supplied to him is authentic and applies to the particular rope in question, he may require a certificate to be obtained by means of a test of the breaking strain of a sample of the rope at a testing station approved by the Minister and the manager shall thereupon obtain that certificate and forward it to the district inspector before using the rope.

(3) The testing of ropes which have been used shall be, by means of a test at an approved testing station of a sample cut off the cage end of the rope for its breaking strain.

Examination of Ropes and Winding Appliances.

126. (1) The manager, or some competent person or persons appointed by him in writing in the record book shall carefully examine—

- (a) at least once each day, the winding ropes and their attachments to the cages, the brakes, depth indicators, the cages and their safety catches, the head sheaves, and all and every external part of the winding arrangements upon the proper working of which safety to life depends;
- (b) at least once a week, the guides and the winding compartments generally, and the signalling arrangements;
- (c) at least once a month, the structure of the rope, for the purpose of discovering the amount of deterioration of it. For the purpose of this examination the rope must be thoroughly cleaned at selected places not more than 100 feet apart, and the manager or person appointed by him shall note the condition of the rope externally, and as far as practicable internally, and shall record that condition in a rope record book, noting especially any significant reduction in diameter of the rope and estimating the reduction in its strength due to wear;
- (d) at least once a year, the winding engine as to the working condition of the internal parts.

(2) A test shall be made prior to placing in commission any new, remodelled or repaired skip, cage or tank and after any alteration to the shaft timber or head frame, for clearance and free travel in all parts of the shaft in use up to the detaching thimble.

Maintenance of Ropes.

127. Ropes shall be cleaned and oiled in a manner approved by the inspector.

History of Ropes.

128. There shall be entered in the rope record book a history of all winding ropes used on the mine which shall include—

- name of shaft in which rope is used;
- compartments in which rope is used;
- date on which rope was put on;
- date of shortening;
- dates of recapping;
- dates of turning end for end;
- dates of tests and the results;
- date when rope taken off;
- dates of examination, cleaning and oiling of winding ropes and appliances required by these regulations;

and every entry shall be signed by the person responsible.

Defects.

129. (1) Should any weakness or defect in the rope or winding appliances be discovered in the course or as a result of examination, the defect shall be immediately reported to the manager and no person shall be lowered or raised by the rope or appliance until the defect is made good.

(2) So soon as a rope becomes defective it shall no longer be used for transport of persons, unless the damaged part be at the end and be cut off.

Reg. 130.
Amended by
G.G.
4/11/49,
p. 2808.

Used Ropes.

130. Ropes which have previously been in use in places beyond the manager's control shall not be used to raise and lower persons unless the full history of the ropes has been obtained and submitted to the district inspector and he is satisfied that they may be used with reasonable safety.

131. No chain shall be used for lowering or raising persons in any shaft, but short coupling chains may be attached to the cage, skip or tank. In such cases, two single link chains of uniform size shall be used to each coupling and the two chains shall each have a breaking strain not less than eight times the weight of the load upon them.

Reg. 131A.
Added by
G.G.
28/3/52,
p. 785.

131A. (1) At least once in every six months, the connection between the rope and the cage, skip or other means of conveyance and the connection between conveyances, if more than one conveyance is used, shall be annealed or replaced.

(2) A proper record shall be kept of the annealing of all chains, links, bars and bolts used in connecting the rope to the cage, skip or other means of conveyance. This record shall be personally entered by the person authorised by the manager to carry out the work and shall show that the fittings were properly annealed.

PART VIII.—VENTILATION.

Ventilation of Mines.

132. An adequate amount of pure air shall be made to circulate through and into the shafts, winzes, levels, underground stables and all the working places of such mines, and the travelling ways to and from such working places in such quantities as will maintain them in a fit state for working and passing therein.

Standards of Purity and Temperature.

133. In any part of the underground workings of a mine which has not been closed off as disused as hereinafter provided the total quantity of carbon dioxide present shall not exceed 0.25 per centum by volume, but at any point where firing of explosives has taken place, a greater percentage of carbon dioxide shall be permissible until thirty minutes have elapsed since the last explosion.

Testing.

134. The manager, or some person appointed by him, shall make tests in the working faces and in the airways of the mine to show that the foregoing requirements have been complied with and enter the results of the tests in the record book.

No Work in Inadequately Ventilated Places.

135. Where the ventilation in any place is inadequate, no work excepting such as is necessary for the purpose of remedying the conditions shall be undertaken in that place.

Senior Inspector to Determine Ventilation.

136. Where the adequacy of the ventilation in any place is in dispute, a decision shall be made by the senior Inspector of Mines.

Appeal Board.

137. From the decision of the senior inspector of mines an appeal shall lie to the Mines Ventilation Board hereinafter constituted and shall be instituted by notice in writing to the other parties affected and to the Under Secretary for Mines, which notice must be given within seven days from the date the parties appealing are notified of the senior inspector of mines' decision. The Under Secretary for Mines will then convene the board which will meet as soon as possible on a date to be notified by the Under Secretary for Mines.

For the purpose of this regulation, the Mines Ventilation Board is hereby constituted, and shall consist of—

the State Mining Engineer;

the Commissioner of Public Health;

a representative appointed by the Mining Branch of the Australian Workers' Union;

a representative appointed by the employer,

or, if they or any of them are unable to act, their respective nominees.

The State Mining Engineer or his nominee shall be chairman of the board. The Commissioner of Public Health shall be a member of the board in an advisory capacity only and without a vote. The decision shall be in accordance with the majority of votes. The presence of four members shall be necessary for a quorum. The decision of the board shall be final.

All reasonable costs and charges of the board shall be rendered to the Under Secretary for Mines who shall apportion them equally between the Mines Department and the parties to the proceedings:

Provided that the board may order any appellant to pay the whole or a certain proportion or amount of the costs of any appeal which the board may declare to be trivial and such appellant shall forthwith pay any such sum.

Disused Workings.

138. Any part of a mine which is disused may be shut off from the ventilation system thereof, and in the part shut off, the requirements of the regulations of this Part shall not be enforced. Such parts shut off shall be noted in the record book and shall be fenced off from the parts of the mine in use. Before work is resumed in any workings which have been disused, the ventilation of these shall be thoroughly restored.

Stoppings and Doors.

139. Air doors, stoppings, cross-overs and brattices shall be provided where necessary for regulation of the ventilating air currents and shall be kept in good order and condition. Air doors shall be self-closing where practicable and shall have notices attached to them "Keep open", or "Keep shut", as the case may be, and any person leaving a door shut which is marked "Keep open", or leaving a door open which is marked "Keep shut", shall be guilty of a breach of the regulations.

Ventilation Plans.

140. When required by the senior or district inspector, the direction course and volume of the air currents and the position of all air doors, stoppings, fans and ventilating devices of all sorts throughout the mine shall be marked upon plans and sections to be kept at the mine. The inspector may also require a copy of the ventilation plans which shall be supplied upon request.

Ventilating Machines.

141. If, in the opinion of the inspector, the state of the ventilation in any part of a mine is unsatisfactory and there is no immediate prospect of improvement of the natural ventilation by connection of workings, he may in writing, require that ventilating machines shall be used, and such machines shall thereupon be provided and used.

Supply of Air.

142. The supply of air for any ventilating machine or air-compressor which forces air into the workings shall be drawn from the purest source available.

Water Traps in Compressed Air Mains.

143. Air mains from compressors shall be furnished with sufficient traps of type approved by the district inspector, to remove accumulations of water and water shall not be allowed to blow through to the working faces. All such traps shall be blown off at least once in every shift.

Blowing Out Air Receivers.

144. All air receivers and pipes connecting them with the compressors shall be blown out every day.

Reg. 144.
Amended by
G.G.
11/6/54,
p. 1082.

Return Airways.

145. In every mine there shall be constructed as soon as practicable one or more airways independent of the main shaft or other principal entrance of the mine, from the lowest level through to the surface, of sufficient area to allow passage of the amount of air required to ventilate all the parts of the mine served by the airways, and they shall be maintained open and unobstructed except when it may be necessary to close some of them in order to regulate and properly distribute the air through the workings.

Airways in Filled Stopes.

146. In filling stopes, or in shrink stopes, rearings or passes shall, if so directed in writing by the inspector, be constructed so as to leave open airways between the filling or broken ore and the unbroken ground.

Recirculation of Air.

147. (1) The air currents passing through every mine shall, as far as practicable, be regulated so that the air shall pass through the workings from inlet to outlet without local circulations, that is, the same air shall not be allowed to return repeatedly through the same place.

(2) Every mine, or group of mines under the one management, shall be ventilated independently so that the air from one mine shall not pass into adjacent mines except upon agreement between the owners of adjacent mines and then only after approval in writing of the District Inspector, and mechanical means of ventilating the underground workings shall be adopted when the inspector so directs.

Reg. 147.
Amended by
G.G.
4/11/49,
p. 2808.

Air to be Split.

148. The workings from each level in every mine shall be ventilated by a separate split of air from the main intake into each level, and after passing through these workings the air shall be led as directly as possible to the return airway.

Winzes to be Sunk.

149. Where a shaft is being sunk, a winze shall, when so instructed by the inspector, also be sunk so as to reach the level to be opened by the shaft in time to meet the level as it is driven; but should the owner object to sink the winze he shall have the right to refer the inspector's decision to arbitration pursuant to the provisions of section twenty-three of the Act.

Prevention of Dust.

150. (1) Where dust is produced in the course of mining operations underground, or in mills and reduction works, to such an extent that the health of the workmen is endangered thereby, the owner, agent, or manager shall thereupon provide and cause to be constantly used, such appliances as will prevent the dust from being breathed by the workmen.

(2) The appliances so used shall be such as lay the dust by the use of water delivered from sprays or jets or other effective methods and shall be approved by the inspector.

(3) Every person in a mine shall comply with the instructions of the manager or the inspector as to the use of water and the appliances provided in the mine for the suppression of dust.

(4) Where, in the opinion of the inspector, the dust from tailings, dumps or any other heaps of waste rock or mill residues on a mine is a nuisance to persons employed on them or in their vicinity, and detrimental to their health, he shall give notice in writing to that effect, and the manager shall thereupon provide and cause to be constantly used such spraying appliances as will effectively lay the dust.

(5) Spraying water used either on the surface or underground for the purpose of laying dust shall be free from pollution with noxious matter.

Respirators.

151. When respirators are supplied to men working in dusty places, each respirator shall be used by one person only, and when returned shall be thoroughly cleansed before being again issued.

Development Ends.

152. (1) No development end or winze where a machine drill is used shall be advanced more than 10 feet from the through air current, and no workings shall be undertaken off that development end or winze at a distance greater than 10 feet from the through air current unless ventilating equipment is installed delivering induced air through pipes to the face with sufficient volume and velocity to remove the dust.

(2) Any working place where dust is formed shall be provided with ventilating equipment if in the opinion of the district inspector it is considered necessary.

(3) Any person who wilfully or through negligence, damages or misuses any ventilation equipment or installation, or who fails to use them where provided shall be guilty of a breach of this regulation.

Ventilation Officers.

153. (1) The manager when required to do so by the district inspector shall appoint dust and ventilation officers, whose duty it shall be to examine and report on—

- (a) the quality, distribution and use of the water used for laying dust;
- (b) the condition of the necessary appliances for using water at each working place, and elsewhere;
- (c) the dust sampling of the mine, more particularly as regards development ends;
- (d) temperature readings in working places;
- (e) the condition of the mine relating to ventilation.

(2) The manager shall notify the senior inspector of mines in writing of the name of the person or persons so appointed from time to time. The condition of the mine as found by such person shall, at the completion of each day, be entered by him in the record book or on special forms. Such entries shall be examined and countersigned by the manager or underground manager at least once a week.

Quantity of Fresh Air to be Provided.

154. (1) The quantity of fresh air, excluding compressed air, supplied in any ventilating district, shall be not less than 50 cubic feet per minute for every man or horse normally employed in such district during the full period of twenty-four hours.

Reg. 154.
Amended by
G.G.
4/11/49,
p. 2808.

(2) The current of fresh air supplied shall be suitably split, and each working place shall receive not less than 50 cubic feet per minute per person or horse employed therein, and such kata-thermometer standard shall be maintained as the senior or district inspector, after consultation with the manager, may require.

(3) The quantity of air circulating in each ventilating district shall be determined at least once in every three months and recorded in a record book.

Remedy for Fume Poisoning.

155. A supply of remedies, including oxygen gas and approved appliances for treatment of men suffering from fumes of explosives or other noxious gases, with instructions for their use, shall be kept at every mine employing more than ten men underground.

Use of Cyanide Tailings.

156. Tailings used for filling worked-out ground shall not contain more free cyanide than is equivalent to .01 per cent. of potassium cyanide. A strong current of air shall be maintained through any workings which are being filled with such tailings so long as men are working and passing therein.

Acid Treatment of Slimes.

157. All vessels use for an acid treatment of zinc slimes from the cyanide process shall be fitted with hoods or other appliances which shall prevent the fumes from entering the air breathed by the workmen engaged in that process, and shall discharge to atmosphere in such a manner as to cause no inconvenience to other workers in the mine.

Noxious Fumes from Metallurgical Processes.

158. (1) In every case where fumes which, in the opinion of the State Mining Engineer are noxious and dangerous to persons, are likely to escape from any furnace or other plant used in connection with any metallurgical processes in quantities or under conditions likely to endanger the health and life of persons engaged in, on, or about the premises in which the metallurgical process is carried on, the furnace or other plant shall, for the purpose of preventing such escape, be equipped with a suitable fume precipitator approved by the State Mining Engineer.

(2) The fume precipitator shall be constructed and operated at all times to the satisfaction of the State Mining Engineer.

PART IX.—SANITATION AND HYGIENE.

Cleanliness and Sanitation.

159. Adequate provision shall be made in every mine for cleanliness and sanitation, including the eradication of vermin.

Sanitary Conveniences on Surface.

160. A sufficient number of privies and urinals, which shall comply with the requirements of the Local Board of Health, shall be provided for the use of employees upon the surface of every mine.

Sanitary Conveniences Underground.

161. In every mine over 100 feet in depth, when a cage or bucket is not available when required for men to come to the surface or to a higher level where pans are provided, and when so directed by the inspector, a sufficient number of pans shall be provided underground, at least one in each level, and the pans shall be furnished with a stool and foundations of pattern and material approved by the inspector.

The pans shall be screened from observation, and, where possible shall be placed in a return airway.

Deodorant.

162. An ample supply of sawdust or other suitable deodorant shall be maintained alongside each pan, both at the surface and underground, with a suitable scoop for the application of it.

Cleansing of Pans.

163. (1) Every pan shall be thoroughly cleansed each time it is emptied before being returned, and shall after cleansing be thoroughly washed inside and out, and disinfected.

(2) The inspector may prescribe the frequency of removal and cleansing of sanitary conveniences.

Pollution of Workings.

164. Any person polluting the workings or wantonly misusing or fouling the privies or sanitary arrangements shall be guilty of a breach of these regulations.

Stagnant Water.

165. Stagnant water shall not be allowed to remain on the floors of levels which are in use, but shall be drained away.

Where accumulations of stagnant water in winzes are being drained off, sufficient precautions shall be taken to prevent dangerous pollution of the mine atmosphere by noxious gases given off from the water.

Stables.

166. Underground stables shall not be placed elsewhere than in a return airway and shall frequently be thoroughly cleansed. All manure and stable refuse shall be removed from underground every day.

Crib Places.

167. One or more places shall be set aside in each level in the driest and most comfortable position available, at which men may eat their food. Seating and a table shall be provided in every crib place, which shall be frequently cleaned out and shall be maintained in a clean state. Water for washing shall be made available within fifty feet of the crib place. All men working on or from such level shall use the crib place provided. Any person throwing or leaving waste food about the mine shall be guilty of an offence against this regulation.

Reg. 167.
Amended by
G.G.
4/11/49,
p. 2808.

Drinking Water.

168. A supply of potable water, sufficient for the needs of the men employed, shall be provided on each working level in every mine. Where men are working in places remote from the source of water supply, suitable containers shall be provided.

Waste Timber to be Removed.

169. Waste timber in underground workings shall not be piled up and permitted to decay, but shall be removed as soon as practicable.

Pitbank to be Covered.

170. Every brace or pitbank shall be properly covered to protect the workmen from the inclemency of the weather.

Change Houses.

171. Change houses shall be provided at every mine employing more than 10 men, and the following provisions shall apply to them:—

- (a) The floor space shall not be less than 3 feet by 2 feet for every employee using the change house in any one shift, in addition to the floor space required for passage ways, heating pipes, and drying racks.

Reg. 171.
Amended by
G.G.
6/7/51,
p. 1983;
G.G.
11/6/54,
p. 1082.

- (b) An ample supply of fresh, hot and cold water shall be provided for the men to wash themselves with, and washing basins at the rate of not less than one for every fifty employees using the change house on any one shift. Proper provision shall be made for removing the waste water.
- (c) Where there is a good supply of fresh water available at any mine, shower-baths shall be provided in the change house, at the rate of not less than one for every fifteen employees using the change house in any one shift.
The showers shall be at least four feet apart, screened from observation, and provided with drainage to remove the waste water.
- (d) Change houses shall be well ventilated and lighted, and shall be provided with sufficient appliances for drying wet clothes. Provision shall be made for warming the change houses in cold weather and for keeping clean and working clothes separate.
- (e) Change houses constructed after the publication of this regulation in the *Gazette* or reconstructed to comply with the direction of the Minister to provide for the administration of Aluminium Therapy shall be divided into two separate sections, one for clean clothes and one for working clothes. The provisions of subclause (a) of this regulation shall apply to each such section. No person shall place working clothes in the section set apart for clean clothes.
- (f) (i) Every man using the change house shall, at the end of each week, remove his dirty clothes therefrom and bring back clean ones on his return to work. Any clothing left unremoved at the end of the week shall be burned. This shall not apply to safety helmets, belts or boots, which may be left as directed by the manager.
(ii) Change houses shall be cleaned out at least once a fortnight or more frequently if so instructed by the inspector, but the floors must be washed daily.
- (g) Underground change rooms shall be as near the haulage shaft as, in the opinion of the inspector of mines, it is reasonably practicable to have them.
- (h) In any underground change house erected after the publication of this regulation in the *Gazette*, provision shall be made for the protection of the men from the inclemency of the weather when travelling between the shaft and the change room.
- (i) Change houses shall be so constructed as to be free from draughts and the entry doors shall be provided with sufficient screening to break the wind when such doors are open.

**PART X.—UNDERGROUND LOCOMOTIVES, INCLUDING
SHUTTLE CARS.**

172. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

173. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

Maximum Gradient for Locomotive.

174. No locomotive shall be used on any road on which there is a gradient exceeding 1 in 10 for shuttle car or 1 in 12 for any other type of locomotive.

Rail Tracks.

175. Where locomotives are used, the rail track shall have adequate strength and rigidity and shall be properly laid and maintained.

Daily Inspection of Roads.

176. A competent person, appointed in writing by the manager, shall be placed in charge of every road on which locomotives are used and shall, at least once in every twenty-four hours, inspect the whole of every such road with respect to its clearance and freedom from obstructions and the state of the track, ventilation, state of the roof and sides and general safety, and shall report any defects in writing to the manager.

Safety Provisions.

177. Every locomotive shall be provided with—

- (a) an effective brake;
- (b) [deleted by G.G. 16/12/63, p. 3908.]
- (c) an effective headlight and means for giving an audible warning signal;
- (d) a suitable type of portable fire extinguisher, approved by the inspector, so placed as to be within easy reach of the driver.

Reg. 177.
Amended by
G.G.
11/6/54,
p. 1082;
G.G.
16/12/63,
p. 3908.

Weekly Examination of Locomotive.

178. Once at least in every week, each locomotive shall be examined by a competent person appointed by the manager.

Heading and
Reg. 178.
Amended by
G.G.
16/12/63,
p. 3908.

179. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

Reports of Examinations.

180. A report of each examination made under regulation 178 of these regulations shall forthwith be recorded in a book by the person making the examination together with particulars of any defects found on such examination and the action taken to remedy the same, and such book shall be kept at the mine and be available for inspection by an inspector when he so requires.

Reg. 180.
Substituted
by G.G.
16/12/63,
p. 3908.

181. No locomotive shall be used if it has any defect liable to affect its safe running.

182. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

Riding on Locomotive Prohibited.

183. No workman, other than the driver or the shunter, shall ride on any locomotive except with the permission of the manager for the purposes of training or testing.

184. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

185. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

186. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

187. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

188. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

189. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

190. [Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.]

Oil Spillage to be Avoided.

191. (1) Adequate means shall be provided to avoid, as far as possible, spillage of oil during the filling of oil tanks.

Oil Spilt to be Removed.

(2) Any oil spilt shall be at once taken up with sand, deposited in a fireproof receptacle and removed from the mine at suitable intervals.

192. [*Disallowed by Legislative Assembly: See G.G. 21/10/49, p. 2535.*]

193. A copy of the last five* preceding regulations shall be kept posted up at each filling station.

Storage Battery Locomotives to be Constructed of Non-inflammable Material.

194. Every storage battery locomotive and all accessories used in conjunction therewith shall be constructed as far as possible of non-inflammable material and, when inflammable material is used unavoidably, it shall as far as possible, be shrouded by a substantial metallic covering.

Electrical Equipment to be Enclosed.

195. All parts of the electrical equipment shall be contained in substantial enclosures designed to resist rough usage and the battery enclosures shall be fitted with suitable ventilators to disperse the gases evolved.

No part of Locomotive Structure Connected to Electrical Circuit.

196. No part of the structure of a storage battery locomotive shall form part of or be connected with the electrical circuit.

Working Voltage.

197. The working voltage at the battery terminals shall not exceed 115 volts.

Charging Station.

198. If the batteries are charged underground, this shall only be done at a charging station fixed by the manager and approved by the inspector.

Ventilation of Battery Charging Stations.

199. Each battery charging station shall be adequately ventilated to render harmless the gases evolved and the charging apparatus shall be installed on the intake side of the battery racks so that the ventilation passes from the battery racks direct into the return airway.

No Inflammable Material to be Used.

200. No inflammable material shall be used in the construction of any underground charging station constructed after the publication of these regulations in the *Gazette*.

Fire Extinguishing Apparatus to be Kept Available.

201. Adequate means for extinguishing fire shall be kept constantly available at each charging station.

Naked Light not to be Used.

202. No naked light shall be used and no person shall smoke in or within ten yards of an underground charging station.

203. A copy of the last five preceding regulations shall be kept posted up at each charging station.

* Of the five regulations referred to, regulations 188, 189, 190 and 192 were disallowed by the Legislative Assembly: See G.G. 21/10/49, p. 2535.

Use of Locomotives Underground.

204. (1) No person shall be allowed to have charge of a locomotive used for traction purposes underground unless he has been examined by the manager or some competent person appointed by him in writing for the purpose of examining him, by a thorough practical trial in the use of the machine, and has received from him a certificate that he is thoroughly competent and fit to have charge of it.

Reg. 204.
Amended by
G.G.
10/3/64,
p. 1058.

(2) A duplicate of every such certificate shall be sent by the manager to the inspector forthwith after issue thereof.

(3) Such certificate shall state the name of the person in full to whom it is issued, his address, his place of birth, his age, the name of the mine and the mine owner, the date and place of issue and shall be signed by the person examining him, and the holder shall sign his name on both the original and duplicate certificate in the presence of the manager, who shall certify that the signature is that of the person examined by him, and to whom the certificate is issued.

(4) The inspector may, at any time, cancel any such certificate if he can show cause that the holder should not be entrusted with the charge of such machine, and the holder shall, on demand, deliver his certificate to the inspector for cancellation.

(5) Any person taking charge of such machine without a certificate, and any owner, agent, or manager knowingly allowing such person to take charge of it, shall each be guilty of a breach of this regulation.

PART XI.—ELECTRICITY IN MINES.

Interpretation.

205. In these regulations, the term "Commission" shall mean the State Electricity Commission of Western Australia constituted pursuant to the provisions of the State Electricity Commission Act, 1948¹ and the term "Inspector" shall mean Electrical Inspector.

Reg. 205.
Amended by
G.G.
4/11/49,
p. 2808.

Scope.

206. (1) The regulations in this Part shall apply to all mines to which the provisions of the Mines Regulation Act, 1946, apply.

(2) The installation and use of electricity in such mines shall be in accordance with the provisions of these regulations, and all other regulations made under the Electricity Act, 1945, which are applicable thereto, the Standards Association of Australia Wiring Rules and appropriate Australian or British Standard Specifications.

High and Extra High Pressures.

207. (1) Before a higher pressure than medium pressure is used or transmitted for any purpose below ground complete technical details and blueprints of the scheme shall be submitted to the Commission, and the higher pressure shall not be used underground without the permission in writing of the Commission.

(2) All installations of high and extra high pressure shall be in accordance with standard and accepted practice, as defined from time to time by the Commission.

Competent Person in Charge.

208. (1) The mine manager or other person or persons in charge of a mine, shall appoint a competent person, hereinafter called the electrician, who shall be the holder of a current electrical worker's license, pursuant to the provisions of the regulations made under the provisions of the Electricity Act, 1945, and known as the Elec-

¹ Semble this is a reference to the State Electricity Commission Act, 1945 (No. 60 of 1945).

tricity Act Regulations, 1947, or such other regulations made from time to time for that purpose, and shall have charge of all electrical machinery, apparatus, and installations in or about the mine.

(2) Where electricity used for power or lighting purposes in or about a mine is not in excess of a total demand of 100 k.w., the electrician may be a person who holds a restricted license under the Electricity Act Regulations, 1947.

(3) Every person appointed or allowed to work any electric motor or other electric apparatus, or adjust or replace any fuse, shall have been instructed in his duty and be competent for the work he is set to do.

(4) No person other than a person holding a current electrical worker's license as required under the Electricity Act Regulations, 1947, shall be employed on electrical work in or about a mine.

Duties of Electricians and Other Persons Employed at the Mine.

209. (1) The electrician shall—

- (a) maintain the electrical installation and apparatus in and about the mine in safe working condition;
- (b) carry out routine examinations and tests of all electrical machinery, apparatus, appliances, wires, cables and trailing cables;
- (c) carry out routine tests of the effectiveness of the earthing system, the continuity of earthing conductors, and the condition of electrical insulation;
- (d) report immediately to the mine manager any circumstances affecting or likely to affect the safe use of any electrical installation, apparatus, or appliance, and shall stop forthwith the use of any electrical installation, apparatus, or appliance the condition of which is dangerous;
- (e) enter in a record book and sign his name to such entry the result of each routine examination and test carried out by him, together with his opinion as to the condition and safety of the machinery, apparatus, appliances, wires, cables and trailing cables and earthing system and conductors, and any repairs or alterations required to ensure safety or to comply with the provisions of these regulations.

(2) The routine examinations and tests shall be carried out to the satisfaction of the electrical inspector, as often as may be necessary to prevent danger.

(3) Every official, workman, or other person employed in or about a mine, and every person who, by contract or otherwise, undertakes any work relating to the electrical installation or apparatus in or about a mine, shall comply with and observe the provisions of these regulations. Such persons shall immediately report any overheating, arcing, shock, or damage relating to the electrical installation apparatus which may come to his knowledge to a responsible official of the mine, who shall promptly record and sign the report in a record book.

(4) Machine miners operating electrically driven machines shall carefully inspect every such machine and the flexible cables attached thereto prior to operating the machine, and shall report any defect in accordance with the preceding subclause (3), and shall satisfy themselves that the electric current is cut off from the flexible cables and machine before leaving the working place.

Records to be Kept.

210. (1) The mine manager shall keep or cause to be kept, a plan, of a scale not smaller than four chains to one inch, showing the position of all permanent electrical equipment and fixed cables underground in the mine, which shall be corrected at least every

three months if necessary, or whenever alterations are made to permanent wiring. The electrical inspector may at any time examine the plan and, upon demand, shall be supplied for official purposes only with a copy thereof or any part thereof, which he may require.

(2) The mine manager shall keep or cause to be kept, a record book at the mine in which shall be recorded the information required to be recorded by these regulations, and also a record of every instance of the opening of a main fuse or circuit breaker, and the electrical inspector may examine the record book at any time and shall, upon demand, be supplied with a copy thereof, or of any part thereof which he may require.

(3) The mine manager shall keep, or cause to be kept, such records of the electrical installation and of the use of electricity as the Commission may require, and shall, as and when required, forward to the Commission in the form provided by the Commission for the purpose, which shall be duly completed and signed by the mine manager, such information in regard to the electrical installation and use of electricity at the mine as the Commission may require.

(4) Every personal accident occurring in connection with the operations of the electrical installation, apparatus and appliances, including electric shocks and burns, shall be promptly reported by the person injured, or by any person witnessing the accident, or by some other person on behalf of the injured person, at the office of the mine and recorded in the record book, and any case of serious or fatal accident shall be reported by the manager in writing to the Secretary of the Commission.

Notices to be Exhibited.

211. The mine manager shall cause—

- (a) instructions to be posted up and maintained at the mine entrance, and in main generator transformers and motor houses, containing directions as to the resuscitation of persons suffering from electric shock and all employees working with electrical apparatus shall acquaint themselves with these instructions;
- (b) a notice to be kept posted in a conspicuous place on the mine warning unauthorised persons not to touch or interfere with any fallen, broken or damaged cable or wire or apparatus, but to report such at once to the office or electrician;
- (c) a notice to be posted and maintained in a conspicuous place, instructing machine miners to comply with the provisions of subregulation (4) of regulation 209;
- (d) a notice to be posted and maintained in a conspicuous place instructing officials and workmen in the action to be taken in the event of fire associated with electric cables and equipment.

Reg. 211.
Amended by
G.G.
4/11/49,
p. 2808.

Interference and Damage.

212. No person shall wilfully or negligently damage, interfere with, or without proper authority remove or render useless, any electric line or any machine, apparatus or part thereof used in connection with the supply or use of electricity.

Switch Near Mine Entrance.

213. A main switch shall be provided in a readily accessible position near the underground entrance, for cutting off the whole of the supply of electricity to the underground workings of the mine. The circumstances under which this switch shall be operated shall be governed by the provisions of regulation 111.

Type of Wiring in Mines.

Reg. 214.
Amended by
G.G.
4/11/49,
p. 2808.

214. (1) No open wiring shall be installed underground without the written permission of an electrical inspector.

(2) All cables installed in a mine shall be suitable for the purpose for which they are used in accordance with standard and accepted practice as defined by the Commission.

(3) All cables except flexible cables installed underground in a mine shall be enclosed in a metallic covering or other covering approved by the inspector, which shall comply with the following requirements—

- (a) The metallic covering shall be an iron or steel wire or tape covering, or a rigid iron, steel, or other hard metal tube;
- (b) the metallic covering shall enclose all the conductors of a circuit;
- (c) the metallic covering shall be electrically continuous throughout and shall be securely attached to the metallic structure or any apparatus to which the cables are connected and suitably bonded at junctions;
- (d) the metallic covering shall be efficiently protected against corrosion.

(4) Flexible cable installed after the publication of these regulations in the *Gazette* may be used to connect portable or transportable apparatus in a mine provided it complies with the following requirements—

- (a) the type of flexible cable shall be approved by the Commission for use in mines;
- (b) the flexible cable shall comprise all the conductors of a circuit including the earth wire and pilot wires;
- (c) in the case of low or medium voltages the flexible cable shall be provided with a flexible metallic screen enclosing all the conductors in the cable or in the case of D.C. installations alternatively flexible metallic screens enclosing each individual conductor in the cable. The conductivity of this flexible metallic screen shall not be less than 25 per cent. of that of the largest conductor enclosed and it shall be effectively earthed;
- (d) in the case of voltages in excess of low or medium voltages, the flexible cable shall have a flexible metallic armouring.

(5) Flexible cables may be used to connect apparatus using extra low pressure.

Installation and Protection of Cables in Mines.

215. (1) Cables in shafts, ladderways and haulage ways shall be properly supported at intervals to the satisfaction of the electrical inspector, where the cables are not designed to support their own weight.

(2) Supporting devices shall not comprise readily ignitable material.

(3) Where cables in haulage ways cannot be kept at least one foot from any part of the cage, skip, tub or truck, they shall be specially protected to the satisfaction of the electrical inspector.

(4) Where roads are being repaired or blasting is being carried out, suitable temporary protection must be used to protect cables and cable boxes from damage or they shall be removed from the site.

(5) Cables and cable boxes shall not be installed in any position which would make it dangerous to use ladderways, shafts, or haulage ways.

(6) Cables shall not cross over or be placed in such a position that they could fall on or foul any mine hoisting rope.

(7) Flexible cables shall at all times be kept clear of the rails and traffic, except when machines are being removed from place to place, in which case all wheeled and horse traffic shall be suspended on the part of the road where the cable is extended.

(8) All flexible cables temporarily out of use shall be properly coiled up and removed to a place of storage approved by the inspector.

Limitation of Pressure.

216. (1) Underground lighting shall not be connected to any system of a pressure greater than low pressure excepting to an A.C. system by means of a double wound transformer, the secondary of which must be effectively earthed.

Reg. 216.
Amended by
G.G.
4/11/49,
p. 2808.

(2) Portable lighting and signal systems shall not be connected in the mine to any system of a pressure greater than extra low pressure, except to an A.C. system by means of a double wound transformer, the secondary of which shall be effectively earthed.

(3) Except in the case of the high pressure winding of a transformer no portable or transportable apparatus used underground shall be supplied at a pressure greater than medium pressure.

Earthing.

217. (1) All metal and conductors which are required to be earthed shall be connected by an earthing conductor to an effective main earthing system at the surface of the mine.

Reg. 217.
Amended by
G.G.
4/11/49
p. 2808.

(2) Additional earthing systems which shall be effectively bonded to the main earthing system at the surface of the mine shall be provided in or around the mine where, in the opinion of the electrical inspector, they are necessary for safety.

(3) The neutral point of alternating current electrical systems shall be effectively earthed to the main earthing system. Direct current electrical systems may be earthed in the same manner. The written permission of the electrical inspector must be obtained to introduce an impedance into a mine electrical system earth connection.

Protection.

218. (1) In addition to the automatic circuit protection required by the Standards Association of Australia Wiring Rules, an efficient method of leakage protection shall be provided for all underground alternating current circuits operating above extra low voltage, which shall isolate the circuit if the leakage current to earth exceeds 15 per centum of the rated current of the circuit, or 5 amperes whichever is the greater.

(2) Where necessary to prevent danger suitable means shall be provided at the surface of the mine to protect the installation in the mine from abnormal voltage due to atmospheric electricity.

Emergency and Safety Provisions.

219. (1) In every mine where electricity is used below ground for power or lighting purposes, direct telephonic communication shall be provided between the surface of the mine and one or more convenient places in the mine.

(2) In all machine rooms and other places underground where a failure of electric light is likely to cause danger, suitable emergency lighting shall be kept ready for use in the event of such failure.

(3) Approved fire extinguishers shall be kept near main switch boards ready for immediate use, and provision shall be made to confine safely any inflammable oil or other material which may escape from electrical apparatus.

(4) In cases where it is necessary to work on, or handle live parts of electrical apparatus for the purpose of adjustment, gloves and mats of India rubber, or other sufficiently non-conducting material shall be supplied by the manager and used by the operator.

Electric Signals, Telephones and Shot Firing.

220. (1) Electric signal, telephone and insulated shot firing cables, or any of them, shall not be allowed to come into contact with other electric conductors.

(2) Bells, wires, insulators, contact makers and other apparatus used in connection with electric signals underground shall be of substantial and reliable construction, and shall be erected in such a manner as in the opinion of the electrical inspector will reduce the liability of failures or faulty signals to a minimum.

(3) Electricity from lighting and power cables shall not be used for firing shots, except as specified in regulation 57.

Tramways and Trolley Wires.

221. Trolley wires and electric trolley locomotives shall not be used underground without the written permission of the electrical inspector. Tramway circuits and trolley wires shall be installed in accordance with standard and accepted practice in mines and under the conditions laid down by the electrical inspector.

Dangerous Atmospheres.

Reg. 222.
Amended by
G.G.
4/11/49,
p. 2808.

222. Where explosive and inflammable atmospheres are encountered, such precautions, methods of installation and apparatus shall be adopted as shall be required by the inspector.

Exemptions and Miscellaneous.

223. (1) Within three months after the date of publication of these regulations in the *Gazette*, notice in writing of any existing electric installation shall be sent to the Secretary of the Commission.

(2) Notwithstanding anything contained in these regulations any electrical plant or apparatus installed or in use or contracted before the publication of these regulations in the *Gazette*, may be used, subject to such conditions affecting safety as the electrical inspector may prescribe, but all further plant, apparatus and installations shall comply with the provisions of these regulations.

(3) Exemption from any of the requirements of these regulations may be granted by the Commission in special circumstances on written application. In the case of emergency installations, applications for exemption must be made within fourteen days of such installation being carried out.

PART XII—PLANS AND SURVEYS.

Persons Authorised to Make Surveys and Draw Plans.

224. Surveys shall be made and plans shall be drawn in compliance with sections forty-seven and forty-eight of the Act by—

- (a) a licensed surveyor of the State; or
- (b) an authorised mine surveyor of the State, that is to say, a person who holds the certificate of mine surveyor from the School of Mines of Western Australia, or who holds certificates from any other School of Mines, University or Technical College deemed equivalent thereto by the Survey Board, referred to in the next succeeding regulation and who produces to that board satisfactory evidence that he has assisted to make underground surveys for not less than twelve months under the supervision of a surveyor qualified under this regulation or under that of a surveyor in Australia or New Zealand whose qualifications are deemed to be equivalent thereto by that board.

Survey Board.

225. A Survey Board shall be appointed to examine the qualifications of applicants for authority to make surveys and draw plans under the provisions of the last preceding regulation and shall consist of—

- (a) the State Mining Engineer, who shall be chairman thereof;
- (b) a nominee of the Surveyor-General;
- (c) a nominee of the Institute of Mining Surveyors of Western Australia.

Certificate as Authorised Mine Surveyor.

226. The Board shall examine the qualifications of each applicant for authority to make surveys and draw plans under the provisions of regulation 224 and, if satisfied with such qualifications and with the character of the applicant, shall issue him with a certificate as an authorised mine surveyor for the State.

Evidence of Qualifications to be Submitted with Application.

227. Each applicant for a certificate as authorised mine surveyor shall supply with his application, documentary evidence as to his technical qualifications, a letter or letters certifying to his terms of underground surveying experience and evidence as to sobriety and character. The Board may reject any candidate if not satisfied as to his character.

Offences.

228. A certificate as an authorised mine surveyor shall not empower its holder to carry out surveys under the provisions of the Land Act, Transfer of Land Act, or the Mining Act, and any person who carries out or attempts to carry out or holds himself out by reason of holding the certificate as authorised to carry out surveys under those provisions, shall be guilty of an offence against the Act and shall be liable to a penalty for the offence in addition to penalties which he may incur under the provisions of the above-mentioned Acts.

Persons Already Registered to be Issued with Certificates.

229. Any person registered under regulation 10 of the Mines Regulation Act, 1906-1945,¹ as a person authorised to make surveys and draw plans shall, on receipt of an application to the board, be issued with a certificate as an authorised mine surveyor under these regulations.

Certificate may be Cancelled or Suspended.

230. The board may, at any time, if satisfied that the holder of a certificate is incompetent or guilty of improper practice or that surveys or plans furnished by him are inaccurate or deceptive, suspend or cancel such certificate.

Survey Instruments.

231. Survey shall be made with instruments of precision as prescribed in the survey regulations for land surveys, or with special mining instruments of equal accuracy to these. All surveys shall be made to the true meridian, without use of the magnetic needle, using the bearing of a boundary of the lease as basis.

Underground Bearings.

232. True bearings shall be carried from the surface into the underground workings by an accurate method.

Level Surveys to be Connected.

233. Whenever practicable the surveys of different levels in a mine shall be connected by direct bearings and measurements through winzes or by traverses through stopes.

¹ Repealed by Mines Regulation Act, 1946.

Measuring Tapes.

234. Measurements of depths of shafts and distances between levels shall be accurately made with steel measuring bands or metal wires. Winzes and rises under 100 feet in length may be measured with non-metallic tapes, but all others must be measured with accurate metallic bands or wires.

Levels.

235. Accurate levels shall be taken from the plats in every shaft, and from the entrance of every adit or tunnel into the face of every drive and crosscut in the mine.

Checking Traverses.

236. Whenever a closed traverse cannot be otherwise obtained every traverse which consists of more than one line shall be checked by returning over the same ground with a different set of stations.

Calculations.

237. Every traverse shall be calculated to meridian and perpendicular and shall show a closing error of not more than one in 2,000. Copies of the traverse sheets shall be sent to the Minister with the copies of plans and sections.

Compass Surveys.

238. Magnetic surveys of small mines may nevertheless, be accepted if the State Mining Engineer is satisfied that sufficient accuracy is thereby attained for the particular case. In every traverse made with free magnetic needle the bearings, whenever possible, shall be read both forwards and backwards from each station along each line of the traverse, and in plotting, allowance shall be made for local attraction and variation. The instrument shall be fixed upon a tripod or other firm support while bearings are read, and shall be capable of being read with accuracy to not less than one-quarter of one degree. This surface traverse shall be commenced from one of the corners of the lease, and shall show the variation of the magnetic bearing of two of the boundary lines from the true bearing as shown on the lease.

Plans.

239. The plans to be furnished include—

- (a) a plan of the leases on which the mine is situated, showing the position thereon of all shafts and openings from the surface to underground workings, to a scale not smaller than two hundred feet to an inch;
- (b) a general plan of all underground workings to a scale of not greater than 20 nor less than 60 feet to an inch, showing the levels superimposed on one another, except by special permission of the State Mining Engineer;
- (c) if the plan referred to in the last preceding paragraph, does not show the workings at lower levels clearly, owing to those at higher levels being superimposed, there shall also be furnished such plans of each level so obscured or of successive groups of levels, as may be sufficient to clearly show the workings on each level to the same scale as that of that plan;
- (d) longitudinal sections to a scale satisfactory to the State Mining Engineer showing all stoving—
(If working on branch reefs or parallel reefs can be clearly shown superimposed on the main section they may be so shown but otherwise a separate section of each must be shown);
- (e) sufficient cross sections, to the same scale as the plans, to show clearly the reefs or lodes and the workings on them.

The plans shall be projections of the workings on a horizontal plane; the longitudinal sections shall be projections on one or more vertical planes parallel to the longest axis of the reef or ore deposit, and shall be shown on the plan by a line indicating the plane of the section. The cross section shall be projections on vertical planes at right-angles to those of the longitudinal sections, and which shall be shown by straight lines upon the plans.

Information Concerning Surveys to be Supplied.

240. The State Mining Engineer may require information on any matter connected with the instruments and methods used in making the surveys, and may, if he thinks fit, call for a copy of all the field notes used, and such information or copies shall thereupon be supplied to him.

All Excavations to be Shown.

241. The plans and sections shall show the true size and shape of all underground excavations.

Linen Prints and Tracings.

242. The copies of plans and sections sent to the Minister may be tracings on linen or when procurable, linen prints. They shall be rolled on suitable rollers, and shall not be folded.

Copies to be Certified.

243. All copies of plans, sections and field notes shall be certified to be correct and for this purpose a certificate in the following form shall be endorsed on the plans:—

I certify that this survey has been made and the plan drawn in strict accordance with the requirements of the Mines Regulation Act, 1946, and the regulations made thereunder.

Dated the _____ day of _____ 19 _____

Authorized Mine Surveyor.

Extensions.

244. After complete plans of the mine have been forwarded to the Minister in accordance with the provisions of section forty-seven of the Act, the owner, agent or manager may, should he so desire, forward on subsequent occasions, tracings of extensions of the workings carried out during the year:

Provided that they shall show enough of the old work to enable the additions to be correctly connected with the original plans. Sunprints of such extensions will not be accepted.

PART XIII.—MISCELLANEOUS.

Machinery to be kept in Good Order.

245. All machinery, whether above or below ground, shall be kept in good order and condition.

Diesel Engines.

246. (1) An internal combustion engine shall not be taken, installed or used underground in a mine unless and until the permission in writing of the State Mining Engineer to do so is first obtained.

Heading and
Reg. 246.
Substituted
by G.G.
16/12/63,
p. 3908.

(2) For the purposes of this regulation "internal combustion engine" includes a diesel-engined vehicle.

246A. No internal combustion engine other than a compression-ignition diesel engine that uses low volatile fuel shall be operated or used underground in a mine.

Regs. 246A-
246P.
Added by
G.G.
16/12/63,
p. 3908-11.

246B. (1) The State Mining Engineer shall, before issuing a permit under regulation 246 of these regulations, direct that tests be made to determine whether a diesel engine or a diesel-engined vehicle, or any class of diesel engine or diesel-engined vehicle, is safe for underground use.

(2) The State Mining Engineer shall determine the manner and place of such tests, the cost of which shall be borne by the applicant.

(3) Each permit issued shall specify therein the road and ventilating districts of a mine, or either of them, in which, and the distances from the working face within which, a diesel engine or diesel-engined vehicle may be used, and the matters so specified may be varied or withdrawn at any time.

(4) Every diesel engine or diesel-engined vehicle for which a permit has been issued shall be clearly stamped by the Senior Inspector of Mines or a person authorised by him in that behalf with the number assigned to it and shall be registered by that inspector in the register of engines maintained by him.

246C. A person shall not operate or allow to be operated underground a diesel engine or diesel-engined vehicle that is unsafe or apparently unsafe.

246D. (1) A person shall not operate underground in a mine a diesel engine or a diesel-engined vehicle unless authorised in writing by the manager of that mine and a copy of the authorisation shall be forwarded to the District Inspector of Mines who shall maintain a register of persons so authorised.

(2) A person who is under the age of 18 years shall not be authorised to operate underground in a mine a diesel engine or a diesel-engined vehicle.

246E. A diesel-engined vehicle, when used underground, shall, if required by the State Mining Engineer, be fitted with—

- (a) brakes that are effective;
- (b) a speed indicator so placed as to be readily seen by the driver;
- (c) effective lights that enable travelling in forward and reverse directions;
- (d) a means of giving an audible warning signal; and
- (e) a suitable portable fire extinguisher of a type approved by the District Inspector and so placed as to be within easy reach of the driver.

246F. (1) Every diesel engine used underground shall be fitted with an exhaust gas cooling device capable of reducing the temperature of the undiluted exhaust under any condition of operation to less than 170 deg. Fahrenheit at the point of discharge from the device which device is of a type approved by the State Mining Engineer.

(2) Cooling of the exhaust gas shall be effected by passing it through water and the water shall be completely drained and replenished with clean, fresh water at the beginning of each shift, but when so required by the Senior Inspector of Mines, chemicals as specified by him, shall be added to the water.

246G. (1) The undiluted exhaust gas produced by a diesel engine intended for use underground shall contain not more than 0.25 per cent. by volume of carbon monoxide or 0.20 per cent. by volume of oxides of nitrogen under any condition of engine operation.

(2) A device that is capable of diluting with air the exhaust gas of a diesel engine and being of a type approved by the State Mining Engineer shall be fitted to every diesel engine that is taken

or used underground, and the final diluted exhaust mixture, of which the oxygen content shall be not less than 20 per cent. by volume, shall be directed away from the operator and assistants.

246H. (1) No diesel engine or diesel-engined vehicle shall be taken or used underground in any part of a mine in which through ventilation is not provided.

(2) The quantity of fresh air supplied by through ventilation to any part of a mine in which any diesel engine or diesel-engined vehicle is taken or used shall be sufficient to dilute the final exhaust gases so that the concentration of any of the following constituents in the diluted mixture shall not exceed—

- (a) 0.25 per cent. by volume of carbon dioxide;
- (b) 0.01 per cent. by volume of carbon monoxide;
- (c) 0.0025 per cent. by volume of oxides of nitrogen,

and at no time shall the volume of air supplied be less than 5,000 cubic feet per minute.

(3) The oxygen content of the diluted mixture shall be not less than 20 per cent. by volume.

246I. (1) The mine manager shall cause to be taken, in all places where diesel engines are used underground, and at intervals of not more than four weeks or at such lesser intervals as the Inspector may require, a sample of air for analysis, which sample shall be taken on the exhaust side of the air current.

(2) The undiluted exhaust gas produced by a diesel engine underground shall be sampled and analysed daily, and the mode of analysing and the method of taking of samples under this regulation shall be approved by the State Mining Engineer.

(3) The mine manager shall be responsible for the cost of sampling and of analysing under this regulation.

(4) The original certificate relative to each laboratory test shall be filed in a book kept at the mine for the purpose and the book shall be open to the inspection of an inspector when he so requires.

246J. A diesel engine fitted to a vehicle that is underground shall not be operated while the vehicle is stationary, except for engine testing and for short periods when necessary.

246K. The mine manager or owner shall, with respect to diesel-engined vehicles to be used underground—

- (a) determine by notice the maximum load to be hauled by each vehicle and the conditions of operation;
- (b) cause cautionary notices to be posted in any roadway in which special precautions are necessary for their safe running; and
- (c) give to each driver directions, in writing, as to loads, speed and such other matters as are necessary to ensure safe operation.

246L. (1) The mine manager shall appoint, in writing, a competent person who once at least in every week shall examine every diesel engine and diesel-engined vehicle used underground in the mine to ensure that it is in proper working order and that inlet and exhaust valves are cleaned as often as is found necessary.

(2) Maintenance procedures and the manner of making inspection may be specified by the Senior Inspector of Mines and any defects found, together with the action taken to remedy them, shall forthwith be recorded by the examiner in a book kept at the mine for the purpose, which book shall be open to the inspection of an inspector when he so requires.

246M. (1) Diesel engine fuel for use underground shall have a flash point of not less than 150 degrees Fahrenheit as determined in the manner indicated in the British Standard Specifications as at the commencement of this regulation, and shall not contain more than 0.5 per cent. sulphur by weight.

(2) Oil fuel, when taken underground, shall be in strong containers that do not leak.

(3) Oil fuel and lubricants for use underground shall be stored in such places as may, together with their method of construction and means of ventilation, be approved by the Inspector, and the quantity of oil fuel stored on a level shall not exceed the quantity required for one week's work thereon.

246N. (1) Diesel engines shall not be fuelled or serviced at an underground fuel storage place and diesel-engined vehicles shall be fuelled or serviced at a service station if a station is required by the Senior Inspector of Mines.

(2) The location, method of construction and means of ventilation of a service station shall be approved by the Inspector.

(3) Fuelling underground shall be by means of pump and hose or other method approved by the Inspector.

246O. No naked light shall be used and no person shall smoke in or within ten yards of any service station or fuel storage place that is underground in a mine and the mine manager shall cause signs to that effect to be erected in conspicuous places.

246P. Fire extinguishers of a type and capacity approved by the Senior Inspector of Mines shall be installed on each diesel engine and at fuel storage places and service stations underground in a mine.

Transport of Carbide.

247. No person shall carry, or cause or permit to be carried, any calcium carbide underground except in lamps provided or approved by the manager or in a watertight receptacle of a type approved by the inspector and to be approved by the manager. No person shall store or leave calcium carbide underground on coming off shift. Spent carbide shall be placed in an approved receptacle and taken to the surface as often as may be necessary.

Underground Dams.

248. Plans and specifications of any proposed underground dam shall be submitted to the District Inspector for his approval and no such underground dam shall be constructed without that approval:

Provided that this regulation shall not apply to open dams on any level.

Intoxicating Liquor.

249. (1) Any person who, while in or on any mine, is under the influence of intoxicating liquor shall be guilty of an offence against the regulations.

(2) No intoxicating liquor shall be in or on any mine or be taken by any person on to or into any mine, except with the knowledge and permission of the manager, and any person having intoxicating liquor in his possession while in or on the mine, without such permission shall be guilty of an offence against the regulations.

PART XIV—OCCUPATIONAL DISEASES.

250. No person known to be suffering from tuberculosis of the respiratory organs shall enter a mine for the purpose of working therein as a mine worker and no owner or manager shall knowingly employ any such person in any mine.

Schedule—Form No. 2.

251. (1) No person shall be employed as a mine worker in any mine unless he has first been examined by the Mines Medical Officer and issued with the initial certificate in the Form No. 2 in the Schedule to these regulations, stating that he is not suffering from tuberculosis, pneumoconiosis, silicosis, ankylostomiasis, nystagmus, subcutaneous cellulitis of the hand (beat hand) subcutaneous cellulitis over the patella (miner's beat knee), acute bursitis over the elbow (miner's beat elbow), inflammation of the synovial lining of the wrist joint and tendon sheath, or dermatitis and is in other respects physically fit for work as a mine worker.

Reg. 251.
Amended by
G.G. 17/7/70,
p. 2150.

Schedule—Form No. 1.

(2) Application for the initial certificate shall be made in the Form No. 1 in the Schedule to these regulations.

Schedule—Forms Nos. 3 and 4.

(3) An applicant who has failed to pass the examination for the initial certificate, shall not be eligible for further examination unless issued with a certificate to that effect in the Form No. 3 in the Schedule to these regulations on which shall be stated the date on which he may present himself for further examination. If the Mines Medical Officer shall decide that there is no possibility of an applicant ever qualifying for the initial certificate, a notification to that effect shall be issued to him in the Form No. 4 in that Schedule and the applicant shall not be entitled to further examination.

Schedule—Form No. 5.

252. Any person who has been issued with any certificate, except a provisional certificate, which entitled him to be employed as a mine worker and who is not eligible for examination under the provisions of section eight of the Mine Workers' Relief Act, 1932-1943¹, may be issued with a re-admission certificate in the Form No. 5 in the Schedule to these regulations provided that he is free from the diseases mentioned in the subregulation (1) of the last preceding regulation with the exception of silicosis or pneumoconiosis in the early stage.

Reg. 252.
Added by
G.G.
14/10/49,
p. 2488.
Amended by
G.G.
15/5/59,
p. 1278.

253. (1) No person shall enter any mine for the purpose of working therein as a mine worker unless within the last preceding two years, he shall have been examined by the Mines Medical Officer and issued with either the initial certificate, the re-admission certificate or a certificate issued under the provisions of section eight of the Mine Workers' Relief Act, 1932-1943,¹ that he is free from tuberculosis; and no owner or manager shall knowingly employ any person not in possession of the required certificate.

Reg. 253.
Amended by
G.G.
15/5/59,
p. 1278;
G.G. 17/7/70,
p. 2150.

Schedule—Form No. 7.

(2) In those cases where an applicant is situated at a long distance from the Regional Hospital, Kalgoorlie and attendance at such Hospital would entail undue hardship, the Mines Medical Officer may issue a provisional certificate in the Form No. 7 in the Schedule which shall entitle the holder to be employed in a mine for a period of not more than twelve months from the date of issue. Such certificate shall be issued by the Mines Medical Officer, at his discretion, upon receipt of such evidence as he may consider necessary to establish that the applicant is not likely to be suffering from tuberculosis of the respiratory organs.

(3) Any person who shall have been issued with a provisional certificate and thereafter shall be medically examined by the Mines Medical Officer during the currency of that certificate, shall surrender the provisional certificate and shall be issued with either

¹ Now Mine Workers' Relief Act, 1932-1964.

the initial certificate, the re-admission certificate, as may be applicable, or a certificate in the Form No. 4 in the Schedule to these regulations that the Mines Medical Officer is unable to grant either the initial or re-admission certificate.

Schedule—Form No. 8.

Where the Mines Medical Officer finds, on examination, that any person holding a provisional certificate who has not previously been examined by him is suffering from tuberculosis or any of the diseases mentioned in subregulation (1) of regulation 251 or, in the case of persons who have previously been issued with the initial certificate is suffering from any of the said diseases except silicosis or pneumoconiosis in the early stage, and was, in his opinion, suffering from that disease at the time when he received the provisional certificate, he shall issue the certificate on the Form No. 4 in that Schedule and shall also forward a certificate to that effect in the Form No. 8 in that Schedule to the Minister. Such certificate shall be final and conclusive as to the particulars contained therein.

Schedule—Forms Nos. 9 and 10.

Upon receipt of such certificate the Minister shall serve upon the person named in the certificate notice in the Form No. 9 in that Schedule, together with a copy of the said certificate, and upon his employer notice in the Form No. 10 in that Schedule, and thereafter such person shall not be employed in any mine as a mine worker unless he shall subsequently be examined by the Mines Medical Officer and issued with an initial or re-admission certificate.

254. The rights and privileges under the Act and the Mine Workers' Relief Act, 1932-1943,¹ of persons lawfully employed in mines, or holding current certificates issued under the provisions of either of those Acts, or with entitlements in respect to war service at the time these regulations come into force are to be preserved; anything in these regulations notwithstanding.

255. [Deleted by G.G. 5/5/50. p. 991]

Reg. 256. 256. Within seven days after the completion of the examination of any person under these regulations, the Mines Medical Officer shall furnish a report in writing to the Minister stating—
Amended by G.G. 17/7/70, p. 2151.

- (a) particulars of cases rejected for the initial certificate;
- (b) the name, address and laboratory number of all persons supplied with re-admission certificates or provisional certificates.

257. For the purpose of these regulations "mine worker" means a person employed under a contract of service on, in, or about a mine to perform manual or other labour, either on the surface or underground, in and as part of the general mining operations carried on in the course of working a mine, except office workers solely engaged in clerical work.

The term includes a tributor who does the work of a mine worker and also a district inspector or workmen's inspector appointed under the Act.

It does not include the manager of a mine.

Aluminium Therapy.

258. When instructed by the Minister the owner, agent or manager of a mine shall provide for the administration of aluminium powder to mine workers employed in the mine. Treatment shall be at the rate of 10 minutes exposure on every

¹ Now Mine Workers' Relief Act, 1932-1964.

working day to an atmosphere containing one gram of dispersed aluminium powder per thousand cubic feet of room space or such other rate as the Minister may approve.

The powder used and the equipment for its dispersal and application shall be approved by the Minister.

SCHEDULE OF FORMS.

Form No. 1.

Form No. 1.
Amended by
G.G. 17/7/70,
p. 2151.

Receipt No.....

Mines Regulation Act, 1946.

(Regulation 251 (3).)

APPLICATION FOR EXAMINATION FOR INITIAL CERTIFICATE.

To the Mines Medical Officer,
Regional Hospital,
Kalgoorlie.

I (1).....of (2).....
in the State of Western Australia, (3).....hereby make
application for examination for the initial certificate specified in
regulation 251 of the Mines Regulation Act, 1946, and request that
the certificate may be posted to me as follows—

.....
.....
.....
.....

Dated this..... day of....., 19.....

Signature of Applicant.....

I, the abovenamed applicant..... do hereby
solemnly and sincerely declare as follows—

(1) I (4) was/was not employed at a mine in Western Australia
within two years prior to the date of my above application.

(2) The last mine at which I was employed during the said
period was the following.....

.....
.....

(3) I (5) obtained/did not obtain a Medical Certificate as
prescribed by regulations under the Mines Regulation Act, 1946,
before commencing work on the said mine.

(4) I (6) was examined by the Mines Medical Officer within two
years prior to the date of my above application/was not examined
by the Mines Medical Officer within two years prior to the date
of my above application or at any time prior to the said date.

(5) The name of the place at which I was examined by the said
Mines Medical Officer was the following—

.....
.....

AND I make this solemn declaration by virtue of section 106 of
the Evidence Act, 1906.

Declared at
this day
of 19
(7)

Before me.....

This Declaration may be made by the declarant before any of the following:—Justice of Peace, Mayor of a Municipal Council, a Town Clerk, President of a Council of a Shire or a Shire Clerk, Electoral Registrar, Postmaster, Classified officer of the State or Commonwealth Public Service, Classified School Teacher, Commissioner for taking Affidavits, Commissioner for Declarations, Stipendiary Magistrate, a member of a Licensing Court, or a Member of the Police Force.

- (1) Christian names and surname of applicant in full. (2) Address. (3) Calling. (4) Delete words not required. (5) Delete words not required. (6) Delete words not required. (7) Ordinary signature of declarant.

Form No. 2.
Amended by
G.G. 17/7/70,
p. 2151.

Form No. 2.
Mines Regulation Act, 1946.
(Regulation 251 (1).)
Regional Hospital, Kalgoorlie.

INITIAL CERTIFICATE.

I have examined..... (whose signature is endorsed hereon), and certify that he is not suffering from tuberculosis, pneumoconiosis, silicosis, ankylostomiasis, nystagmus, subcutaneous cellulitis of the hand (beat hand), subcutaneous cellulitis over the patella (miner's beat knee), acute bursitis over the elbow (miner's beat elbow), inflammation of synovial lining of the wrist joint and tendon sheath, and dermatitis (occupational), and is in other respects physically fit for work as a mine worker.

Dated the..... day of....., 19.....

.....
Mines Medical Officer.

Signature of Examinee.....

This certificate expires on the..... day of....., 19....., and will be of no effect after that date.

Provided that the holder of this certificate shall submit himself to a medical officer or practitioner appointed under and for the purposes of the Mine Workers' Relief Act, 1932-1943¹, or to the Mines Medical Officer for examination whenever required so to do by the Mines Medical Officer or such medical officer or practitioner.

Form No. 3.
Amended by
G.G. 17/7/70,
p. 2151.

Form No. 3.
Mines Regulation Act, 1946.
(Regulation 251 (3).)
Regional Hospital, Kalgoorlie.

Notification that Mines Medical Officer is unable to grant the Initial Certificate, but applicant may apply for re-examination.

Name in Full.....

Address.....

This is to certify that the abovenamed applicant, on the..... day of..... underwent the examination prescribed by regulation 251 of the Mines Regulation Act, 1946, and that the Mines Medical Officer is unable to grant him the initial certificate. He may, however, apply for medical re-examination on the expiration of..... months.

.....
Mines Medical Officer.

Date.....

Note.—This notification must be produced at the next examination.

¹ Now Mine Workers' Relief Act, 1932-1964

Form No. 4.
Mines Regulation Act, 1946.
(Regulation 251 (3).)
Regional Hospital, Kalgoorlie.
CERTIFICATE OF REJECTION.

Form No. 4.
Amended by
G.G. 17/7/70,
p. 2151.

Name in Full.....
Address.....

This is to certify that the abovenamed applicant, on theday of....., 19....., underwent the examination prescribed by regulation 251 of the Mines Regulation Act, 1946, and that the Mines Medical Officer is unable to grant him the Initial or Re-admission Certificate. He is therefore not eligible for employment on, in, or about any mine or part of a mine to which this Act applies.

.....
Mines Medical Officer

Date.....

Note.—Any person who has failed to obtain the initial or re-admission certificate from the Mines Medical Officer, Kalgoorlie, shall not be eligible for employment on, in, or about any mine on the certificate of any other medical practitioner.

Form No. 5.
Mines Regulation Act, 1946.
(Regulation 252 (1).)
Regional Hospital, Kalgoorlie.
RE-ADMISSION CERTIFICATE.

Form No. 5.
Amended by
G.G.
15/5/59,
p. 778;
G.G. 17/7/70,
p. 2151.

Name in Full.....
Address.....

I have examined the abovenamed person (whose signature is endorsed hereon) and certify that he is free from tuberculosis and the other diseases mentioned in regulation 251 of the Mines Regulation Act, 1946, with the exception of silicosis or pneumoconiosis in the early stage.

Dated this.....day of....., 19.....

.....
Mines Medical Officer.

.....
Signature of Examinee.

This certificate expires upon the.....day of....., 19....., and will be of no effect after that date.

Provided that the holder of this certificate shall submit himself to a medical officer or practitioner appointed under and for the purposes of the Mine Workers' Relief Act, 1932-1943¹, or to the Mines Medical Officer for examination whenever required so to do by the Mines Medical Officer or such medical officer or practitioner.

¹ Now Mine Workers' Relief Act, 1932-1964.

(Form No.6 deleted by G.G. 17/7/70. P.2151.)

Form No. 7.
Amended by
G.G. 17/7/70,
p. 2151.

Form No. 7.
Mines Regulation Act, 1946.
(Regulation 253 (2).)
Regional Hospital, Kalgoorlie.

This is to certify that.....
(whose signature is endorsed hereon) has been granted a provisional
certificate under the provisions of regulation 253 of the Mines
Regulation Act, 1946.

Dated this.....day of....., 19.....

.....
Mines Medical Officer

.....
Signature of grantee.

This certificate expires upon theday of.....

Form No. 8.
Mines Regulation Act, 1946.
(Regulation 253.)

Form No. 8.
Amended by
G.G. 17/7/70,
p. 2151.

I have examined (a).....(whose
signature is endorsed hereon), employed on.....
Mine, and certify that he is suffering from (b).....
and in my opinion was suffering from the said disease on the
(c).....day of....., 19.....

Dated this.....day of....., 19.....

.....
Mines Medical Officer

.....
Signature of Examinee.

- (a) Name of miner.
- (b) State disease or diseases.
- (c) Date of previous medical certificate.

Form No. 9.

Mines Regulation Act, 1946.
(Regulation 253.)

Form No. 9.
Amended by
G.G.
10/2/66,
p. 431;
G.G. 17/7/70,
p. 2151.

Take notice that you are reported to be suffering from.....
and to have been so suffering on the.....
day of....., 19....., and that in consequence you are
required under the provisions of regulation 253 of the abovementioned
Act from the date of service of this notice upon you, to
cease work as a mine worker on, in, or about any mine or part
of a mine to which the above Act applies, if already employed in
such mine or part of a mine, and also not to enter any such mine
or part of a mine for the purpose of working therein as a mine
worker until such time as you shall again submit yourself for
medical examination by the Mines Medical Officer or to a medical
officer or practitioner appointed under or for the purposes of the
Mine Workers' Relief Act, 1932-1943¹, and obtain a certificate that
you are free from the diseases mentioned in regulation 251 of the
Mines Regulation Act, 1946.

In default of compliance herewith you render yourself liable to
a penalty not exceeding one hundred dollars.

Dated this.....day of....., 19.....

.....
Minister for Mines.

TO.....
.....
.....

¹ Now Mine Workers' Relief Act, 1932-1964.

Form No. 10.
Amended by
G.G.
10/2/66,
p. 431.

Form No. 10.
Mines Regulation Act, 1946.
(Regulation 253.)

Take notice that, employed by you in mining operations, is suffering from..... and that in consequence he is required under the provisions of regulation 253 of the abovementioned Act, from the date of service of this notice upon you, to cease work as a mine worker on, in, or about any mine or part of a mine to which the above Act applies.

In default of compliance herewith you render yourself liable to a penalty not exceeding one hundred dollars.

Dated this..... day of....., 19.....

.....
Minister for Mines.

To.....

Form No. 11.
Amended by
G.G.
21/4/50,
pp. 917-918;
G.G.
29/4/58,
p. 778;
G.G.
10/2/66,
p. 431.

Form No. 11.
Mines Regulation Act, 1946.
(Regulation 94.)

WINDING ENGINE DRIVER'S HEALTH CERTIFICATE.

Place,
Date 19.....

I have examined (whose
(Full name in block letters.)

signature is endorsed hereon), and I certify that he is not suffering from deafness, defective vision, epilepsy, disease of the heart, diabetes, or other physical infirmity to any such extent as would, or would be likely to render him unfit for his duties or liable to become suddenly incapable of controlling his engine.

Any defects in hearing, vision, or physical condition to be stated hereon.

Hearing is

	Right eye	Left eye	Both eyes
Eyesight (without glasses)	6/_____	6/_____	6/_____
(with glasses)	6/_____	6/_____	6/_____

Colour Vision is

Blood Pressure

Further remarks

Signature of medical practitioner

Address

Signature of examinee

(This signature must be made in the presence of the medical practitioner.)

Address of examinee

Class of certificate

Number of certificate

(See back hereof)

MEDICAL EXAMINATION OF WINDING DRIVERS.

Schedule, Form No. 11.

Regulation 94 (1). Except when exempted pursuant to the provisions of subsection (5) of section forty-six of the Act, every person in charge of a winding engine or hoist* used for raising or lowering of men or materials shall present himself to a medical practitioner registered pursuant to the provisions of The Medical Ordinance, 1869, or those of the Medical Act, 1894-1946,¹ for medical examination in the month of June, or as required by the medical practitioner, or before taking charge of a winding engine if more than twelve months have elapsed since his previous medical examination and shall forward the State Mining Engineer within seven days thereafter on the Form No. 11, in the Schedules to these regulations a medical certificate stating that such person is not suffering from deafness, defective vision, epilepsy, disease of the heart, diabetes, or other physical infirmity to such an extent as would, or would be likely to render him unfit for his duties or liable to become suddenly incapable of controlling his engine.

(2) On receipt of each medical certificate the State Mining Engineer shall cause an acknowledgment to be sent to the engine driver who shall retain it for production when so required by a duly authorised person.

(3) Any engine driver who, in the opinion of a medical practitioner so registered, is not in a fit state of physical health to have charge of a winding engine, shall not take such charge.

(4) Any engine driver who does not comply with, or contravenes the provisions of this regulation, and any manager who employs such an engine driver, shall each be liable to a fine not exceeding Forty Dollars.

* Regulation 94 (1) was amended on the 11th June, 1954, by inserting after the word "hoist" the words "except hoists not exceeding twelve horsepower hauling from a depth of less than two hundred and fifty feet": See G.G. 11/6/54, p. 1082.

* Regulation 94 (1) was amended on the 19th December, 1962, by deleting everything after "hoists" in above amendment and inserting "that are excluded from the application of that section by subsection (4) thereof."

¹ Now Medical Act, 1894-1968.

Form No. 12.
Amended by
G.G.
10/2/66,
p. 431.

Form No. 12.
Mines Regulation Act, 1946.
(Section 46, subsection (5).)

APPLICATION FOR CERTIFICATE OF EXEMPTION.

(Place)

(Date)

To the Inspector of Mines.
.....

I, (name of applicant in full)
of in the State of Western Australia, hereby
make application to be exempted from the operation of paragraph
(b) of subsection (1) of section 46 of the Mines Regulation Act,
1946, or of section 53 of the Inspection of Machinery Act, 1921-
1942¹, in respect of taking or having charge of the machinery
specified hereunder on the (name of the mine)
mine, on (number of lease, P.A., or other
mining tenement on which the machinery is situated), in the
..... (name of goldfield or mineral field)
..... Goldfield or Mineral Field (strike out
whichever term is inapplicable), and I submit the following in-
formation and particulars of the case, as required by the regulations,
viz.:—

Duration and nature of applicant's experience in working
machinery generally,

Duration and nature of applicant's experience in working the
particular machinery in respect of which exemption is applied for
.....

Full description of all the machinery in respect of which
exemption is applied for

And I enclose herewith the sum of one dollar, being the fee
required to be deposited with my application, and I attach here-
under a statement from the owner of the machinery that in the
circumstances of the case it is impracticable to employ a certificated
engine driver in charge of it.

Signature of applicant

Statement by owner of the machinery or his agent.

I, (name in full)
of (address) in the
State of Western Australia, hereby declare that it is impracticable
to employ a certificated engine driver to have charge of the machin-
ery referred to in the foregoing application of (name of applicant)
..... on the (name of
mine) at (mining centre)
for the following reasons, viz.:—

Signature of owner

¹ Now Inspection of Machinery Act, 1921-1969.