DEPARTMENT OF MINERAL RESOURCES AND ENERGY

NO. 6052 **28 March 2025**

MINE HEALTH AND SAFETY ACT, 1996 (ACT NO 29 OF 1996)

AMENDMENTS TO THE REGULATIONS RELATING TO RESCUE, FIRST AID AND EMERGENCY PREPAREDNESS AND RESPONSE

I **Samson Gwede Mantashe, MP,** Minister of Mineral and Petroleum Resources, under section 98 (1) (zP) of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and after consultation with the Council, hereby amend Chapter 16 of the regulations to the Mine Health and Safety Act, as set out in the in the schedule.

MR. S.G. MANTASHE, MP

MINISTER OF MINERAL AND PETROLEUM RESOURCES

DATE: 28/02/2025

SCHEDULE

Amendment of Chapter 16 of the regulations

1. Chapter 16 of the regulations to the Mine Health and Safety Act is hereby amended by the substitution for Chapter 16 of the following chapter:

Definitions

For purposes of Chapter 16, unless the context indicates otherwise –

"**Breathing apparatus**" means an apparatus, which renders the user independent from breathing from the atmosphere for a minimum of two (2) hours;

"Data Logging Facility" means a system that collects, stores, and manages data related to the last known location of the wearer of a missing persons locator device over time;

"**Emergency**" means a situation, event or set of circumstances at a mine that could threaten the health or safety of persons at or off the mine, and which requires immediate remedial action, such as the evacuation, rescue or recovery of persons, to prevent serious injury or harm, or further serious injury or harm, to persons;

"Emergency Medical Care" means provision for facilities, suitably trained medical persons and response time capabilities to treat and evacuate persons who are in an emergency situation;

"**Fresh Air Base**" means the closest, safe place in through-ventilation to the site of an emergency;

"Gassing" means, for the purpose of this chapter, an incident where a person is/has been exposed to a hazardous or toxic gas which exceed the immediately dangerous to life and health level for respirable atmospheres.

"**Irrespirable atmosphere**" means an atmosphere in a mine requiring persons to wear breathing apparatus or Self-Contained Self-Rescuers (SCSR) due to the presence of hazardous gas, fumes or insufficient oxygen caused by an incident at the mine e.g. as a result of but not limited to combustible gases explosions, coal-dust explosions, combined gas and dust explosions, or mine fires.

Missing person" means a person who is unaccounted for by the employer during or after any shift;

"**Obsolete SCSR**" means any Self-Contained Self-Rescuer that is older than ten years from date of manufacturing;

"Refuge Bay" means a durable and safe place located within a safe evacuation distance of each working place as stipulated in the mines' code of practice for Emergency Preparedness and Response.

"**Self-Contained Self-Rescuer (SCSR)**" means a portable oxygen source (chemical or stored) that, when activated, will provide breathable air and includes:

a) "**Body-Worn Self-Contained Self-Rescuer (BWSCSR)**" means a SCSR designed to be worn by workers on their body for the duration of a complete underground working shift.

b) "**Long duration Self-Contained Self-Rescuer (LDSCSR)**" means a SCSR that will supply oxygen for a minimum of 60 minutes at a ventilation rate of 35 litres per minute. The unit must provide oxygen instantly when activated e.g. by chemical reaction or compressed air starters.

"Surface Fire Responder" means a person trained as stipulated in regulation 16.5(7) by a Mines Rescue Services provider, that is capable to deal with incidents and/or emergencies that may occur on every works, mine, surface mining operations or any mineral exploitation site other than underground mining.

"**Unauthorised, Self-Contained Self-Rescuer**" means a SCSR that has not been certified in terms of South African Bureau of Standards specification SANS 1737: "Body-Worn escape type breathing apparatus"

16.1 Report to Employer Relating to events that might lead to an emergency

(1) The employer must ensure that competent persons report to the employer on the adequacy of emergency preparedness and response capabilities at appropriate intervals determined in accordance with the mine's risk assessment, on the adequacy of measures put in place for the management of the following events whether underground, on surface or both:

a) Fires and explosions

b) Flooding

c) Chemical release

d) Biological release

e) Gassing

f) Engineering emergencies (Electrical, mechanical, metallurgical, processing)

g) Mining – (seismicity, falls of ground)

(2) Report to the Employer on Emergency medical care

The employer must ensure that a competent person reports to the employer on the adequacy of emergency medical care and response capabilities at appropriate intervals as determined in accordance with the mine's risk assessment.

16.2 Issuing and deployment of Self-Contained Self-Rescuers

16.2.1 Underground Operations

The employer of every underground mine must ensure that no person goes underground at the mine without a **BWSCSR**, which complies with the latest amended version of the South

African Bureau of Standards specification SANS 1737 "Body-Worn escape type breathing apparatus".

16.2.2 Surface Operations

If at any surface mining operation, the risk assessment in terms of section 11 shows that employees are exposed to **irrespirable atmospheres** in any surface area at the mine, the employer must ensure that no person goes into such area without a **BWSCSR** which complies with the South African Bureau of Standards specification SANS 1737 "Body-Worn escape type breathing apparatus"

16.2.3 Sole Allocation of a Body Worn Self-Contained Self-Rescuer

The employer must take reasonably practicable measures to ensure that any **BWSCSR** supplied to any employee in terms of sub regulations 16.2.1 and 16.2.2, must be allocated to the employee for that employee's sole use for the duration of the deployment of that **SCSR** at the mine or until that **SCSR** becomes defective and the employee is issued with another **SCSR** as required by these regulations.

16.2.4 Deployment and use of a Self-Contained Self-Rescuer

a) Any employee issued with a **BWSCSR** must wear it on the body at all times while underground at the mine or in places on surface as outlined in regulation 16.2.2;

b) Any employee issued with a **SCSR** must use it in an **emergency** where an **irrespirable atmosphere** could exist and for purposes of escape to a **refuge bay** or place of safety.

16.2.5 Training on Self-Contained Self-Rescuer

The employer must ensure that:

a) all employees issued with SCSRs are trained in the use of such an SCSR as per the provisions set out in the Mandatory Code of Practice for Lamproom Management as amended; and

b) Any employee who may be required to use a **SCSR** during an **emergency** is either trained in the use of **SCSR** or will only use it under the direct supervision of a person so trained.

16.3 No Defective, Obsolete or Unauthorised Self-Contained Self-Rescuer to be issued for use

1) The employer must ensure that no defective, obsolete or unauthorised **BWSCSR** is issued for use to any person at a mine.

2) The employer must ensure that no defective, obsolete or unauthorised **LDSCSR** under their respective control is deployed during emergencies.

16.4 Monitoring Programme

Annual testing of Self-Contained Self-Rescuers

1) The employer must annually have a representative sample of the **SCSRs**, both **BWSCSR** and **LDSCSR**, in use or in reserve at the mine, tested by an organisation accredited to do so in terms of the South African National Accreditation System, for the assessment of the structural integrity and functional performance.

2) Where **LDSCSRs** are kept in a surface rescue room at a mine or at the premises of the mines rescue service provider, the mine and the mines rescue service provider must ensure that **LDSCSRs** are tested by an organisation accredited to do so in terms of the South African National Accreditation System, for the assessment of the structural integrity and functional performance.

3) Such a representative sample, as stated in sub-regulations 1 and 2 above, must not be less than 1% of the total number of **BWSCSRs** and not less than 1% of the total number of **LDSCSRs** in use at the mine or by a mines rescue service provider or in reserve. 1% of each sample must be representative of the make, age, and deployment of the **SCSR**.

Record keeping

4) The employer must keep the following information, relating to the **SCSR** at the mine, comprising the preceding 24 months. This information must be readily available at the mine:

   a) The total number and make of **BWSCSRs** in service at the mine;

   b) The number and make of **BWSCSRs** purchased by the mine in that period;

   c) The number and make of **BWSCSRs** withdrawn from use by the mine in that period;

   d) The number of shifts worked per day (1, 2 or 3);

   e) The number of **BWSCSRs** issued daily (average for each month);

   f) The number of employees working underground (on average per shift);

   g) The number of spare **BWSCSRs** available (average per month);

   h) A tabulation of the type of defects found;

   i) The number of **BWSCSRs** repaired/refurbished; and

   j) The number of **BWSCSRs** tested in terms of regulation 16.4(1)

5) The employer must keep the following information, relating to the **LDSCSRs** in use at the mine, covering the preceding 24 months. This information must be readily available at the mine:

   a) The total number and makes of **LDSCSRs** in service at the mine or mines rescue service provider;

   b) The number and make of **LDSCSRs** purchased by the mine or mines rescue service provider in that period;

c) The number and make of **LDSCSRs** withdrawn from use by the mine or mines rescue service provider in that period;

d) A tabulation of the type of defects found;

e) The number of **LDSCSRs** repaired/refurbished; and

f) The number of **LDSCSRs** tested in terms of regulation 16.4(1);

g) The number of spare **LDSCSRs** available (average per month);

h) A tabulation of the type of defects found;

i) The number of **LDSCSRs** repaired/refurbished; and

j) The number of **LDSCSRs** tested in terms of regulation 16.4(1).

16.5 Emergency Preparedness and Response

Mine Rescue Teams

1) The employer at every underground mine must-
   (a) Provide and maintain, readily available at the *mine*, mine rescue teams in the following minimum proportions determined by the maximum number of persons who could be underground at any one time-
      (i) where there could be between 150 and 3600 persons underground, at least 2 mine rescue teams.
      (ii) where there could be between 3601 and 8100 persons underground at least 4 mine rescue teams; and
      (iii) where there could be more than 8100 persons underground at least 4 mine rescue teams and at least 1 additional mine rescue team for every additional 5000 persons who could be underground.
   (b) At any underground mine where there may be less than 150 persons underground as contemplated in regulation 16.5(1)(a)(i) enter into a contract with a mines rescue service provider that has the resources to assist with mines rescue teams as contemplated in regulations 16.5(1)(a)(i)(ii)(iii).
   (c) Ensure that each such rescue team needs to consist of a minimum of eight rescue team members trained at the mine, whereby a minimum of six rescue team members needs to be readily available at the mine to be deployed at any time to any **emergency**.
   (d) Ensure that each operating mines rescue team deployed during an **emergency** to have a backup mines rescue team per operational team when entering any area that may be of **irrespirable atmosphere** or entering an area that exceeds the statutory environmental conditions or when conducting a rescue, recovery, reconnaissance, firefighting or mines rescue rope inspection.
   (e) Ensure that a minimum of two of the responding rescue team members in a rescue team must be the holders of a blasting certificate when called to any **emergency**.
   (f) Ensure that such mines rescue teams have a minimum of two rescue team members with an advance mines rescue member certificate of competency who can captain and/or vice-captain such rescue team during the deployment to any **emergency**.

(g) Have readily available, at the mine for use by the mines rescue team members contemplated in regulation 16.5(1)(a), one **breathing apparatus** per trained mines rescue team member and such **breathing apparatus** must continually comply with SANS 50145: /EN 145: as amended from time to time "Respiratory protective devices - Self-contained closed-circuit breathing apparatus - Compressed oxygen or compressed oxygen-nitrogen type - Requirements, testing, marking"; The normative references in SANS 50145EN 145 as amended from time to time do not apply to the employer;

(h) Enter into a contract with a mines rescue service provider per mining shaft to:

(i) coordinate and facilitate the provision of mines rescue teams and other services, relating to an **emergency**, on a cooperative basis;

(ii) train and certify mines rescue team members contemplated in regulation 16.5(1)(a) to the competency level contemplated in regulation 22.15(16)(a); and

(iii) train and certify persons to manage the control room in case of an **emergency** as contemplated in regulation 22.15(16)(a); where mine rescue teams are deployed;

(i) Immediately notify such mines rescue service provider should any **emergency** occur at the mine that requires or may require the use of the mines own rescue team members contemplated in regulation 16.5.(1)(a), for whatsoever reason, or the use of the services of such mines rescue service provider or the deployment of outside mines rescue teams through such mines rescue services provider as contemplated in regulation 16.5.(1)(e)(f);

(j) Identify a suitable location at the mine that can be used as emergency control room in case of an **emergency** with the following minimum requirements:

(i) An up to date copy of the mine ventilation and rescue plan, as contemplated in regulation 17.19, of any area that could be affected by a possible **emergency**.

(ii) a communication system to enable effective communication from such emergency control room to a potential **fresh air base** in case of an **emergency**.

(iii) a communication system independent from the communication system that is being used between the control room and the **emergency** or its **fresh air base** from where the mine can communicate to outside parties.

(iv) an emergency communication system which must have a different ring tone in comparison to any other communication systems in order for the control room operator and/or manager to immediate identify and attend to any incoming call on the emergency communication system when called for an emergency that may have occurred.

(v) such emergency control room is at all times under the control of a competent person as stipulated in regulation 16.5(1)(h)(iii), and shall be a holder of the Mine Manager's certificate as contemplated in regulation 2.5(2)(1)

(vi) a person is appointed as a competent person in the control room who records all sequence of events and instructions given by the competent person referred to in regulation 16.5(1)(h)(iii);

(vii) all relevant mine personnel, for the area at which the **emergency** exists, are available for consultation if required;

(viii) a written list of all known and anticipated hazards and risks to be expected in and around the area of the **emergency**, together with possible ways of addressing the risks, is compiled with the assistance of the persons mentioned in regulation 16.5(1)(j)(vii), and is provided to all persons assisting in dealing with the **emergency** before commencement of emergency operations;

(ix) only persons authorised by the competent person contemplated in regulation 16.5(1)(j)(v), and that is directly involved with the actual **emergency** is present in the control room.

(k) Ensure during an **emergency**, that:

(i) a sufficient number of mines rescue teams are deployed as soon as reasonably practicable to deal with the **emergency** and that the person contemplated in regulation 16.5(1)(j)(v) is advised of the name of the team captain and vice-captain of each such mines rescue team who will be coordinating the activities of that mines rescue team during the **emergency**, before the mines rescue team is deployed;

(ii) a person appointed in terms of section 12(1) and a person appointed in terms of regulation 2.13(1) is also present in the control room and or relieved by a person with similar qualification and or appointment;

(iii) a sufficient number of plans, to clearly indicate the full route from the shaft entrance to the scene of the **emergency** and possible second escapes, are available in the control room for all persons who may require them and that each mines rescue team is given their own copy before commencing rescue operations.

(iv) a **fresh air base** is established as per the mines rescue service provider's requirements and that it is maintained by the mines rescue teams deployed during that **emergency**.

(v) the control room manager ensures that no unauthorised mine personnel, other than mines rescue team members go beyond the **fresh air base** and enter the direct area where an **emergency** is dealt with, and

(vi) where a mines rescue service provider assists in the **emergency** at the mine by mobilising mine rescue teams not employed at the mine, that the person appointed in terms of regulation 16.5(1)(j)(v) consults timeously with the employee of the mines rescue services provider present in the control room on the deployment of the mines rescue teams.

(vii) ensure that mines rescue teams are trained and made available as per the contract in terms of regulation 16.5(1)(h) and stipulated in the code of conduct of such mines rescue services provider as contemplated in regulation 16.5.1(g)

2) For the purposes of regulation 16.5.1(g) and (h), a mines rescue service provider must:

(a) be an organisation or institution which has personnel with specialist knowledge and experience in mines rescue and emergencies and which has access to rescue equipment and training facilities, including facilities for Heat Tolerance Testing, Workload Testing, Simulated Training and Vertical Shaft Rescue Capabilities.

(b) render an emergency rescue service during an **emergency** on a co-operative basis with the respective mine employers.

(c) provide a mines rescue service which must focus on the mobilisation of a sufficient number of mines rescue teams not employed at the mine where the **emergency** requires such.
(d) ensure that any breathing apparatus that may be used by mines rescue teams complies with SANS 50145:1997/EN 145:1997 'Respiratory protective devices - Self-contained closed-circuit compressed oxygen breathing apparatus for special use - Safety requirements, testing, marking';;
(e) ensure that their personnel are competent to check and maintain any rescue equipment used by it in accordance with the Original Equipment Manufacturer's specifications;
(f) ensure that the functional performance of any other rescue equipment used by it is in accordance with the Original Equipment Manufacturer's specifications.
(g) ensure that the mines rescue team members provided by it meet the qualification requirements as prescribed in regulation 22.15(16)(a);
(h) ensure that where they assist in an **emergency** at a mine by mobilising mine rescue teams not employed at that mine, personnel of such mines rescue services provider is available at the mine to provide advice and guidance, as and when required, to the competent person contemplated in regulation 16.5(1)(j)(v) on the deployment of the mines rescue teams;
(i) provide a control room management course, during which persons are trained to manage the control room in case of an **emergency** where mines rescue teams are deployed, and issue a certificate upon successful completion on such terms and conditions as the mines rescue service provider may determine; and
(j) such control room management certificate as in regulation 16.5(2)(i) is renewed on a three yearly basis by such a mines rescue service provider.

3) Every mines rescue services provider, referred to in regulation 16.5(2), must:

(a) keep a register of all persons who have been found competent to practice as a rescue team member by that mines rescue service provider;
(b) implement and maintain a system to issue licences to practice to persons contemplated in regulation 16.5.(3)(a) and who meet such criteria as determined by the rescue service provider, which criteria must include at least the following:
(i) the person has not attained the age of 46 years.
(ii) the person has been declared medically fit in terms of the requirements of the mine's "Code of Practice on Minimum Standards of Fitness to Perform work at the Mine" as may be amended from time to time, prepared in accordance with the: Guideline for the Compilation of a Mandatory Code of Practice on Minimum standards of Fitness to Perform Work at a Mine;
(iii) the person has undergone and passed the Heat Tolerance Test, conducted in terms of the Chamber of Mines of South Africa Research Organization Research Report No. 29/87 – "A guide to the selection and classification of rescue team members on the basis of Heat tolerance", initially and thereafter at intervals not exceeding 25 months.
(iv) the person has undergone quarterly refresher-training sessions annually as determined by the mines rescue service provider. At least 2 of these training sessions per annum must be in a mine or simulated mine, in an atmosphere filled with real or artificial smoke, whilst using a **breathing apparatus**; and

(v) the person has undergone and passed the physical Work Load Test conducted in terms of the Mines Rescue Services provider code document, initially and thereafter at intervals not exceeding 13 months.

(c) monitor compliance by persons, issued with a licence to practice by it, with the requirements contemplated in regulation 16.5(3)(b) and suspend or revoke any such licence if the person no longer meets any of those requirements, and re-issue a licence when the person again meets the requirements.

4) Deployment of mine rescue teams:

(a) whenever an **emergency** occurs at a mine that requires the deployment of mine rescue teams, the employer and any mines rescue service provider notified in terms of regulation 16.5.1(h) and whose assistance has been requested, must take reasonably practicable measures to ensure that the required mine rescue teams are deployed as soon as possible; and

(b) every employer who has mine rescue teams in terms of regulation 16.5(1) must take reasonably practicable measures to ensure, if any of those mine rescue teams or rescue team members are called by the mines rescue services provider for training as stipulated in regulation 16.5(3)(b)(ii),(iii),(iv),(v) or to assist in an **emergency** at another mine, that they are deployed as soon as possible.

5) No employer or mines rescue service provider may allow any mine rescue team member contemplated in regulation 16.5.1(a) to be deployed as a member of a mine rescue team during an **emergency** unless such mine rescue team member is in possession of a valid license to practice, as contemplated in regulation 16.5(3) and has passed a pre-operational medical examination, determined by the mines rescue service provider, to ensure that the rescue team member is medically fit at the time to be so deployed.

(i) the employer should have readily available at the mine a system or required facilities and required resources whereby any mines rescue team member or rescue teams called to an **emergency** have the capability at such mine to conduct a pre-operational medical examination, determined by the mines rescue service provider as stipulated in regulation 16.5(1)(h);

(ii) the manager in control as contemplated in regulation 16.5.1(j)(v) should satisfy themselves that the first responding mines rescue teams on an immediate deployment has undergone and comply to the rescue team member medical declaration as prescribed by the mines rescue services provider and that such mines rescue teams should be declared medically fit as contemplated in regulation 16.5.5(i) once they can be relieved by other rescue teams.

6) The *employer* at every works, mine, surface mining operations or any mineral exploitation site other than underground mining must-

(a) provide and maintain, readily available *a* surface fire responder team or teams, competent and equipped with sufficient emergency equipment to deal with any **emergency** that may occur at that mine on all shifts worked at such mine;

(b) Ensure that such surface fire responder teams as stipulated in regulation 16.5(6)(a) consist of a minimum of seven rescue team members trained at the mine, whereby a minimum of five surface fire responder team members are readily available and can be deployed.

(c) Where there are surface fire responder teams in terms of regulation 16.5(6)(a), take reasonably practicable measures to ensure, if any of those surface fire responder teams or surface fire responder team members are called by the mines rescue services provider for training or any **emergency** as stipulated in regulation 16.5.7(i),(ii),(iv), that they are deployed as soon as possible.

7) The *employer* at every works, mine, surface mining operations or any mineral exploitation site other than underground mining must enter into a contract with a mines rescue service provider for each such works, mine, surface mining operations or any mineral exploitation site to: :

(i) equip, train and certify such surface fire responder team members as stipulated in regulation 22.15(16)(a);

(ii) ensure such surface fire responder team members undergo refresher training twice per year in a simulated training gallery at such mines rescue services provider and one such training to be in real or artificial smoke whilst using a **breathing apparatus**; and

(iii) provide a control room management course, during which persons are trained to manage the control room in case of an **emergency** where surface fire responder rescue teams are deployed, and issue a certificate upon successful completion on such terms and conditions as the mine rescue service provider may determine; such control room management certificate as in regulation 16.7(ii) to be renewed on a three yearly basis by such a mines rescue service provider.

8) The employer must ensure that every mines rescue services provider, referred to in regulation 16.5(7)(i):

(i) keep a register of all surface fire responder team members who have been found competent to practice as a surface fire responder team member, and breathing apparatuses by that mines rescue service provider;

(ii) implement and maintain a system to issue licences to practice to surface fire responder team members contemplated in regulation 16.5(6)(a) and who meet such criteria as determined by the rescue service provider;

(iii) be an organization or institution which includes personnel with specialist knowledge and experience in mines rescue and emergencies and which has access to specialised mining rescue equipment, workload training gallery, heat tolerance climatic chamber, and training facilities with emergency response capabilities;

(iv) that the surface fire responder team members has undergone and passed the surface fire responder Workload Test, and other required trainings conducted in terms of the mines rescue services provider training program, initially and thereafter at intervals not exceeding 13 months;

(v) that any breathing apparatus that may be used by surface fire responder teams complies with SANS 50137/EN 137 : 2006 type 2 'Respiratory protective devices and as amended from time to time – "Self-contained breathing apparatus - Compressed air" – requirements and testing; and

(vi) monitor compliance by surface fire responder team members, issued with a licence to practice by it, with the requirements contemplated in regulation

16.5.6(a) and suspend or revoke any such licence if the surface fire responder team member who no longer meets any of those requirements, and re-issue a licence when the surface fire responder team member again meets the requirements;

(vii) verify that any firefighting and/or rescue and recovery gear used by the mines surface fire responders complies with the following minimum standards; firefighting clothing suits with EN469 and/or NFPA 1851, wildland clothing suits with EN15614, technical rescue clothing EN 16689:2017, boots EN15090 type 2 for building structures firefighting and type 1 for wildland firefighting, gloves EN659 and/or NFPA1971, structural helmets EN443, firefighting helmets EN16471 or as otherwise prescribed and approved by the mines rescue service provider.

16.6 Refuge Bays

1) The employer of every underground mine must ensure that:

   a) readily accessible **refuge bays** are provided in the underground workings of the mine;

   b) such **refuge bays** as stipulated in 16.6.1(a) are constructed in such a manner that allows for the mines rescue service providers' available equipment and to conduct rescue or recoveries safely from such refuge bays as referenced in the Mines Rescue Services – Member Mines Circular No. 02/2020 - Mobile Rescue Chamber in the Mining Industry - Dated 10 February 2020 ; and

   c) where a mine is required to have **BWSCSRs** in terms of regulation 16.2, such **refuge bays** are located within the limits of protection afforded by the **BWSCSRs** in use at the mine.

2) The employer must take reasonably practicable measures to ensure, having regard to the number of persons likely to be present in the area served by the **refuge bay**, that every **refuge bay** should at least:

   a) be of sufficient size;

   b) be equipped with means for the sufficient supply of respirable air;

   c) be equipped with a sufficient supply of potable water;

   d) be equipped with sufficient and hygienic ablution facilities;

   e) be equipped with sufficient illumination;

   f) be equipped with sufficient first aid equipment;

   g) be equipped with an efficient and effective means to communicate verbally to surface on its own independent line and dialling number, and not be shared with another telephone.

   h) be situated, where practicable, in an area not being used for storage of combustible material or close to such an area.

   i) should not be situated in the same excavation where permanent conveyor belts are installed.

   j) a plan of the escape route is displayed in the **refuge bay**, indicating the position of the **refuge bay** in relation to the shaft or any other egress or access way to the surface.

k) have adequate signage displayed in the **refuge bay**, setting out the emergency procedures to be followed in the **refuge bay** and relevant emergency phone numbers.

l) have a means to facilitate clear identification of the location of the **refuge bay** from the outside in poor visibility; and

m) be constructed in such a way that air containing noxious smoke, fumes or gases will not enter the **refuge bay**;

n) be of sufficient size to accommodate the maximum number of employees intended to use the **refuge bay**;

3) The employer must take reasonably practicable measures to ensure that every **refuge bay** is examined to ensure compliance with: 16.6(2)(a) to (o):

a) at least once every 30 days by a person appointed in terms of regulation 2.15.1 of the regulations in force in terms of item 4 of schedule 4 to the MHSA as provided for in sub regulation 2.15.5(b); and

b) paragraph 2(a) to (l) at least once every 30 days by a person appointed in terms of regulation 2.15.1 and 2.17.1 in force in terms of item 4 of Schedule 4 of the Act or any other employee of a higher ranking; and

c) at least once every 90 days by a person appointed in terms of section 12 of the Act, or by a person who is the holder of a practical certificate issued by the Chamber of Mines or has successfully completed the practical examination of the Intermediate Certificate in Mine Environmental Control, issued by the Minerals Council of South Africa, working under the control of a person appointed in terms of section 12 of the Act.

4) The employer must take reasonably practicable measures to ensure that a written report on the inspection contemplated in 16.6(3)(c) is provided within 7 days to the manager appointed in terms of section 3 (1)(a).

16.7 Missing Person Locator System.

The employer must ensure that:

16.7 (1) No person goes underground at the mine without an intrinsically safe device to determine the last known location of such a person or persons in the event that they go missing while in underground workings.

16.7 (2) If at any surface mine, the risk assessment in terms of section 11 shows that there is a significant risk of employees going missing, including being engulfed by slope failure, the employer must ensure that persons are provided with a missing persons locating device, to determine their last known location, should they go missing at the pit.

16.7 (3) At mines where unplanned or uncontrolled flow of water, broken rock, mud or slimes from a slimes dam may pose a significant risk to the safety of persons, the employer must ensure that persons are provided with a missing persons locating device, to determine their last known location, in the event they go missing.

16.7 (4) The use of the missing persons locator device must form part of the mine's emergency preparedness and response strategy.

16.7 (5) The battery life of the missing persons locator device must be informed by the outcome of the mine risk assessment to enable the locating of the missing person during and after a working shift.

16.7 (6) The system providing the last known location of the **missing person** as contemplated in 16.7.(1), 16.7.(2) and 16.7(3) must be equipped with a **data logging facility**.

16.7(7) All personnel required to make use of such missing persons locating systems are properly trained on the effective use thereof and that such a device must be always worn on the body.

16.7(8) An effective procedure is determined for providing, amongst other things, the following:

a) inspection, repair and maintenance of missing persons locating systems by suitably trained and qualified persons,
b) calibration where possible, and testing of missing persons locating systems as per the manufacturers' specifications.
c) testing to confirm the functionality of the missing persons locating systems and keeping of the records of such tests.