

Black Mountain Mining (Pty) Ltd			
	Safety & Sustainable Development	Doc #	BMM-VOH-COP-012
		Version #	2.0
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Approval / Owner:	General Manager	Last Reviewed/Update Date:	2022/10/11
Author:	VOH Manager	Sanction:	4.1 Appointee(s)
MANAGEMENT OF WORKING IN CONFINED SPACES AT MINES			

1 TITLE PAGE



COP : Code of Practice

MANAGEMENT OF WORKING IN CONFINED SPACES AT MINES

BLACK MOUNTAIN MINE

MANDATORY CODE OF PRACTICE FOR THE MANAGEMENT OF WORKING IN CONFINED SPACES AT MINES

This Code of Practice was drawn up in accordance with Guideline DMR 16/3/2/4-B4 issued by the Chief Inspector of Mines as promulgated in the Government Gazette on 17 January 2020

DMR Mine Code number: 0195

Operation Reference Number: VOH-COP-012 Working in confined spaces

DMR Effective Date: 1 July 2020

Revision Dates:

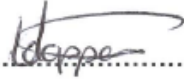
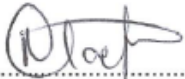
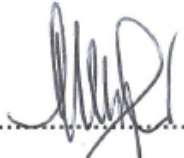
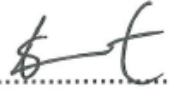
Revision 1: 11 October 2022

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Code of Practise Approval

Compiled By:  C Klopper VOH Manager Date: 09/01/2023	Approved By:  NUM Health & Safety Representative Date: 16-01-2023	Approved By:  E Matlapeng Safety Manager Date: 09/01/2023
Approved By:  AM Cloete Snr. Environmental Supervisor Date: 11/01/2023	Approved By:  J Behr Survey Manager Date: 11-01-2023	Approved By:  M HaneKom Engineering Manager Date: 11/1/2023
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3 STATUS OF MANDATORY CODE OF PRACTICE

- 3.1 The mandatory COP was drawn up in accordance with Guideline DMR 16/3/2/4-B4 issued by the Chief Inspector of Mines.
- 3.2 This is a mandatory COP in terms of Sections 9(2) & 9(3) of the MHSA.
- 3.3 The COP may be used in an incident/accident investigation/inquiry to ascertain compliance and also to establish whether the COP is effective and fit for purpose.
- 3.4 This COP must be read in conjunction with other relevant and applicable COPs such as the guideline for the compilation of a Mandatory COP for an Occupational Health Programme (Occupational Hygiene & Medical Surveillance) on personal exposure to Airborne Pollutants, guideline for the compilation of a Mandatory COP for the Right to Refuse Dangerous Work and Leave Dangerous Working Places.
- 3.5 All managerial instructions or recommended procedures (voluntary COP's) and standards on the relevant topics must comply with the COP and must be reviewed to ensure compliance.

4 MEMBERS OF THE DRAFTING COMMITTEE

- 4.1 In terms of section 9(4) of the MHSA, the Health and Safety Committee was consulted on the preparation, implementation or revision of this COP.
- 4.2 I, Xolani Qamata (4.1 Appointee), hereby appointed the members as listed below on the drafting/reviewing committee for this COP.
- 4.3 Drafting Committee:

DRAFTING COMMITTEE

The table below lists the initial committee drafting the COP:

NAME	DESIGNATION	QUALIFICATION	AFFILIATION	EXPERIENCE	SIGNATURE
C Kloppe	VOH Manager	Cert in Mine Environmental Control	MVSSA	25 years	
E Schrywer	Sectional OH Officer	BSc Hons	MVSSA	7 years	
M Magerman	Sectional VOH Officer	Cert in Mine Environmental Control	MVSSA	19 years	
M Hanekom	Engineering Manager	GCC, B.Eng, MBA	SAAMA	years	
M Mkheto	NUM Health & Safety	Operator	NUM	16 years	
W Freeman	FTHS Representative	COMSOC 1 & 2		17 years	

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L Barry	FTHS Representative	COMSOC 1 & 2		10 years	
E Katzke	Training Manager			years	
I Mawasha	Section Manager			years	
W Coetzer	Emergency Co-Ordinator	Intermediate Certificate in Mine Environmental Control		years	
S Links	Shaft Engineer	B-Tech Mechanical Engineering		years	
D Beukes	TMM Engineer	GCC Engineering, NDip. Eng		years	
B van den Heever	Mine Overseer			years	

5 GENERAL INFORMATION

5.1 General information relating to Black Mountain Mining is stated below.

5.2 The following minimum information is provided:

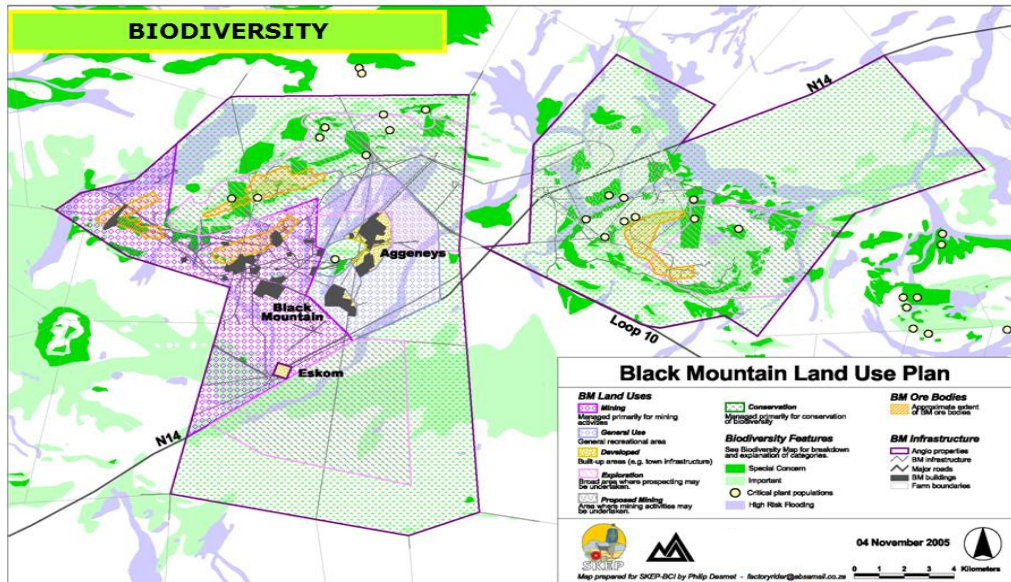
5.2.1 Brief description of BLACK MOUNTAIN and its location.

Black Mountain Mine, GPS co-ordinates: 29 15 12 27 S – 18 49 03 40 E, is a Base Metal mine situated near the town of Aggeneys, 70 km west of Pofadder and 110 km east of Springbok, consisting of the following major areas:

- Deeps Section
- Swartberg Section
- BMM Concentrator Plant

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Figure 1 Depict the location Black Mountain Mine



5.2.2 The commodities produced

The following main concentrates are produced at Black Mountain Mine:

- Lead
- Zinc
- Copper

5.2.3 The mining methods / mineral excavation processes

Black Mountain Mine is a fully mechanized mine and make use of the following mining methods:

- Deeps Section: Cut & Fill and Blast-hole mining methods
- Swartberg Section: Sill and Blast-hole mining methods

5.2.4 The unique features at BLACK MOUNTAIN that has a bearing on this COP

Currently, there are no unique features identified during the risk assessment and the mine operation that have a bearing to this Code of Practice. However, should there be any unique feature(s) identified in future, shall be included in the Code of Practice.

5.2.5 Other relevant COP's

- VOH-IBRA-012 Confined Space Risk Assessment
- VOH-SOP-012 Confined Space Standard Operating Procedure
- VOH-BMF-012A Confined Space Register
- VOH-BMF-012B Confined Space Authorization List
- VOH-BMF-012 Confined Space Entry Permit
- VOH-COP-002: Emergency Preparedness

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- 5.2.5.7. VOH-COP-003: Occupational Health Programme for Noise
- 5.2.5.8. VOH-COP-004: Occupational Health Programme on Thermal Stress
- 5.2.5.9. VOH-COP-005: Minimum standards of fitness to perform work
- 5.2.5.10. VOH-COP-006: Occupational Health Programme on Personal Exposure to Airborne Pollutants
- 5.2.5.11. VOH-COP-007: Prevention of flammable gas explosions
- 5.2.5.12. VOH-COP-010: Prevention of fires
- 5.2.5.13. VOH-BMF-005: Occupational Hygiene Exposure Profiles
- 5.2.5.14. Business Partner Management documentation
- 5.2.5.15. VOH-SOP 020 Illumination
- 5.2.5.16. Vedanta Safety Standards: Confined space entry

6 TERMS AND DEFINITIONS

For the purpose of this Code of Practice the following terms and definitions and technical terms used that is not known or require absolute clarity shall apply:

TERM	EXPLANATION
As & When Required	This COP will be reviewed and updated after every serious incident relating to the topic covered in the COP or if significant changes are introduced to procedures, mining and ventilation layouts, mining methods, plant or equipment and material
Bump test	A brief exposure of gas monitor to gas to verify that the sensors respond and the instrument alarms function accordingly
Confined space	An enclosed or partially enclosed space that is not intended or designed primarily as place of work. Due to its nature, a Confined Space poses particular hazards to personnel that include the potential for: • An oxygen deficient or otherwise non-breathable atmosphere. • An oxygen enriched environment supportive of combustion conditions • An atmosphere that is explosive or flammable. • An atmosphere that is toxic or contains harmful contaminants. • Temperature levels that pose a hazard to personnel. • Entrapment risks due to the nature of the Confined Space's entry and exit points. • Engulfment risks due to the inrush of free-flowing solids or fluids.

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	Entry to a confined space is defined as a person's whole body, upper body or head being located within the confined space
BMM	Black Mountain Mine
CIOM	Chief Inspector of Mines
COP	Code of Practice
DMR	Department of Mineral Resources
MHSA	Mine Health and Safety Act, 1996 (Act 29 of 1996) as amended
MHSC	Mine Health and Safety Council
MOHAC	Mining Occupational Health Advisory Committee
Permit	An official document giving someone authorization to do something
Risk	The likelihood that occupational injury or harm to persons will occur
SAMI	South African Mining Industry
SIMRAC	Safety in Mines Research Advisory Committee
Standby person / control attendant	A person located outside the permit space who controls and records Confined Space entry and performs other duties as defined by the COP
VOH	Ventilation & Occupational Hygiene

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7 RISK MANAGEMENT

- 7.1 As required by Section 11 of the MHSA, Black mountain has conducted an IBRA Baseline Risk Assessment (VOH-IBRA-012 Confined Space Risk Assessment) to identify hazards and associated risks to which employees is exposed to while they are at work.
- 7.2 The significant risks identified in the risk assessment process is dealt with having regard to Section 11(2) and (3) of the MHSA. The Operation as reasonably practicable, attempt to eliminate the risk, thereafter control the risk at source, minimise the risk and thereafter, insofar as the risk remains, to provide personal protective equipment. The Operation instituted a programme to monitor the risk. A procedure developed gives detail of the process to be followed. (VOH-SOP-012 Confined Space Standard Operating Procedure)

8 ASPECTS ADDRESSED IN THIS COP

The COP sets out how significant risks are identified and assessed in terms of the risk assessment process referred to in paragraph 7, and how it will be addressed. The COP covers the following aspects set out below:

8.1 Identification and register of confined spaces

The COP ensures that:

- 8.1.1 Confined spaces are identified by a competent person through the HRMS process and access into the confined space shall be physically restricted using barriers to prevent unauthorised entry whenever possible. Refer to Risk Assessment (VOH-IBRA-012 Confined Space Risk Assessment) and Procedure (VOH-SOP-012 Confined Space).

- 8.1.1.1 The risk assessment covers the following (but not limited to):

- a) The health and safety **risks** associated with entering and working in a specific confined space;
- b) The reporting of an accident related to confined space incident;
- c) The **risk** assessment considered and recorded the following information:
 - (i) Hazards anticipated to be harmful to employee's health as well as those to be replacing oxygen, flammable, explosive and those that require monitoring
 - (ii) Any potential **risk** of engulfment while performing the work
 - (iii) How the work itself may change or deteriorate workplace conditions. I.e. Omitting gasses or fumes while performing work in the confined space

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- (iv) Ventilation requirements for the duration of work inside the confined space.
- (v) Any other control measures required for entry and work in a confined space. i.e. other work happening the same time, size of exit and entry
- (vi) Any other information critical to the health and safety of the employees entering and working in a confined space. heat, noise

- 8.1.2 All confined spaces are identified and recorded in a register (VOH-BMF-012A Confined Space Register)
- 8.1.3 A confined space risk assessment, which forms part of the Permit to Work system, will be conducted before any work or entry is conducted;
- 8.1.4 A site- specific Confined Space procedure (VOH-SOP-012 Confined Space Standard Operating Procedure) and permit system, is in place and implemented to ensure safe confined space entry and work
- 8.1.5 The procedure identifies the appropriate signage that is posted at each entry point denoting that a permit is required prior to entry. Where signage is impractical other means of communication will be used to identify it as a confined space.
- 8.1.6 All employees potentially involved in confined space entry or work are aware of the procedure, register and permit system and are conversant with the contents and requirements thereof. All employees who are required to enter or work in a specific confined space forms part of the pre-entry or work risk assessment.

8.2 Appointments, roles and responsibilities

The COP and Procedure (VOH-SOP-012 Confined Space Standard Operating Procedure) clearly defines the following:

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8.2.1 Appointments

- 8.2.1.1 A Manager or Engineer is appointed in writing to take accountability for all confined space entry or work required to be conducted at the Operation
- 8.2.1.2 As part of the permit system, a supervisor is appointed in writing to oversee specific confined space entry or work
- 8.2.1.3 As part of the permit system a person qualified in occupational hygiene techniques will be responsible to measure levels of exposure to hazards and is appointed in writing to test the atmosphere before and during confined space entry or work
- 8.2.1.4 A competent trained person for standby / attendant will be appointed in writing for every confined space entry or work that must be performed and forms part of the permit system
- 8.2.1.5 All other employees involved with confined space work are trained and competent in the work they are required to perform.

8.2.2 Roles and responsibilities (see Annexure 1 for information purposes)

- 8.2.2.1 The COP and Procedure (VOH-SOP-012 Confined Space Standard Operating Procedure) ensures that all the roles and responsibilities are clearly defined in relation to confined space work required to be done
- 8.2.2.2 All other employees involved with confined space work are trained in their roles and responsibilities, hazards that they will be exposed to in a confined space, and record kept of such training.

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8.3 Control measures

The COP, Risk Assessment and Procedure ensures that:

- 8.3.1 No person will be allowed or may enter a confined space or work inside a confined space without implementing the requirements of the confined space procedure and the permit in relation to any relevant confined space unless all risks have been addressed that render that work safe and without risk to safety and health.
- 8.3.2 All tasks related to the entering of a confined space will be preceded by first conducting a Smart Start Risk assessment. All hazards identified during this assessment will first be addressed taking cognisance of the Risk Management process dealing with the hierarchy of controls. Alternative and safer methods must be considered as part of the risk assessment process to avoid persons entering a confined space.
- 8.3.3 The hierarchy of control is applied during Task Based Risk Assessment / Issue based assessments process and follow these principles, first considering elimination, engineering controls and administrative controls before resorting to personal protective equipment
- 8.3.4 In managing risks associated with a confined space, the following issues must be considered before work commences and will be described clearly in the procedure:
 - 8.3.4.1 Whether the work can be carried out without the need to enter the confined space;
 - 8.3.4.2 The nature of the confined space where the work will commence;
 - 8.3.4.3 The hazards associated with any airborne contaminant or unsafe level of oxygen;
 - 8.3.4.4 Where the work will be conducted in the confined spaces the procedure will be clear with regards to the following issues:
 - a) The various methods that can be applied to conduct the work;
 - b) A task specific confined space rescue plan developed for each entry into a confined space authorised by the person responsible.

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8.4 Permit systems

The COP, Confined space Risk Assessment permit and Procedure ensures that:

8.4.1 No Manager / Engineer / Supervisor may allow or direct a worker to enter a confined space to carry out work unless a confined space entry permit for the work has been issued. The permit process includes the following elements:

- 8.4.1.1 Continuous monitoring and assessment by a competent person will take place identifying hazards, concentrations of flammable and explosive gasses / substances;
- 8.4.1.2 The permit clearly requires in detail the type and extent of work required to be performed;
- 8.4.1.3 The risk assessment and work permit identify the Isolation procedures for airborne pollutants and other energy sources including work being performed elsewhere that may have an effect at this particular instance;
- 8.4.1.4 The competent person monitors the control systems in place to ensure no failures occur;
- 8.4.1.5 The procedure requires that an appointed person be in charge to sign-in and sign-out of all persons entering the confined space be complied with;
- 8.4.1.6 The permit authorising the work to be done is available at the point of use at all times;
- 8.4.1.7 Communication process and equipment tested before work begin is available at all times;
- 8.4.1.8 Safety specification of equipment to be taken into the confined space i.e. In explosive atmospheres intrinsically safe equipment;
- 8.4.1.9 Barricading the area where work is being done to prevent unauthorised access;
- 8.4.1.10 Rescue plan and equipment in place and tested before work commences;
- 8.4.1.11 Standby person/Control Attendant to be trained, competent, identified to the team and appointed in permit;
- 8.4.1.12 A procedure is in place depicting the process to be followed when work is completed.

8.5 Energy isolation and lockout

The COP and Procedure (BMM-ENG-GEN-SOP-0003 Isolation and Lockout) depict the process followed to ensure that lock out and isolation standards are complied with

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- 8.5.1 All energy sources are identified and physically isolated or locked out as per the Lock Out procedure before entry or work in the confined space is allowed including work that is being performed elsewhere that may have an influence on the work required to be done;
- 8.5.2 As part of the permit requirements, harmful materials and airborne pollutants are identified and confirmed 'not present' before entry or appropriate measures implemented to safeguard people
- 8.5.3 Surfaces of confined spaces are cleaned and cleared from any material that could fall or stick to the side of the confined space before entry that could create a harmful atmosphere for personnel
- 8.5.4 Only intrinsically safe equipment is used inside confined spaces where flammable or potentially explosive atmospheres are likely. In certain confined spaces (e.g. inside metal tanks) suitable precautions to prevent electric shock have been implemented to include the use of extra low voltage equipment (typically less than 25 V) and, where necessary, residual current devices.

8.6 Atmosphere

The COP and Confined Space Entry Procedure ensures that:

- 8.6.1 No person is allowed or instructed to enter into a confined space unless the atmosphere inside a confined space is safe, and without risk, to health as far as reasonable practicable before entry into and work inside a confined space is allowed.
- 8.6.2 Procedures and permit system is implemented and a person is in charge to ensure that a health and safe atmosphere is maintained throughout the entire period of confined space work.
- 8.6.3 Controls are in place to ensure the concentration of any flammable gas, vapour or mist is identified in the atmosphere of the confined space and where present it is less than 5% of its lower explosive limit (LEL), so far as is reasonably practicable
 - a) Where the flammable gas, vapour or mist is equal to or greater than 5% but less than 10% of its LEL— immediate evacuation of the confined space unless a suitably calibrated, continuous-monitoring flammable gas detector is used in the confined space; or
 - b) Where the flammable gas is equal to or greater than 10% of its LEL— all employees will immediately be evacuated and removed from the confined space.

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8.6.4 When gas, vapour or mist detected in a confined space all equipment with the potential to cause a spark, flame or radiant heat sufficient to ignite must be removed from the confined space as well as any source outside in close proximity to the confined space must be isolated or controlled

8.7 Atmosphere testing and monitoring

The **COP** and Confined Space Entry Procedure ensures that:

- 8.7.1 The atmosphere inside a confined space is tested prior to entering for relevant harmful, flammable substances and oxygen content. The testing is done with continuous instrumentation relevant to the hazards identified and tested at all extremities of the confined space without physically getting into the confined space (telescopic rod, vacuum pump, probe/hose).
- 8.7.2 Atmospheric monitoring is conducted by a competent person on a continuous base from the outside of the confined space.
- 8.7.3 Monitoring requirements, e.g. frequency, are detailed on the confined space entry permit. In most instances the Operation use continuous monitors.
- 8.7.4 Atmospheric monitoring results are recorded on the confined space entry permit and be available at the entry point to the confined space. Records will be maintained as per the records management procedure.
- 8.7.5 Where atmospheric monitoring cannot confirm a safe environment prior to entry, the Procedure / Permit rule entry to the confined space may not take place. Once controls have been implemented and after measurements confirm an atmosphere that is safe without harm to personnel.
- 8.7.6 All measuring and monitoring equipment used to test the atmosphere have a current and valid calibration certificate. A bump test is conducted before each day's use in accordance with the manufacturer's instructions.

8.8 Ventilation

- 8.8.1 When a risk assessment identifies that ventilation is required to safeguard employees, the 12.1 appointee (Occupational Hygienist) will implement suitable controls sufficient to ensure the safety of employees working in confined spaces for the duration of the tasks.
- 8.8.2 To ensure the maintenance of a safe oxygen level in a confined space and it is dependent on mechanical ventilation, equipment related to the supply of sufficient air of good quality are identified and measures in place to prevent them from being switched off.
 - a) Measures are in place to ensure the continuous monitoring while the confined space is occupied;

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- b) All controls will be tagged and clearly identified during confined space entries to ensure they are not switched off or interfered with in any way to ensure continuous flow of power to mechanical equipment related to the confined space work to be done.

Refer to Confined Space Entry Risk Assessment and Procedure.

8.9 Standby person/control attendant

The COP and Confined Space Entry Procedure ensures that a standby person/control attendant is utilised during the time Confined Space work is in progress.

8.9.1 All standby person/control attendant comply with the following whilst performing confined space duties:

- 8.9.1.1 Be trained and competent to undertake standby duties;
- 8.9.1.2 Be present at the entry/exit point at all times while personnel are in the confined space;
- 8.9.1.3 Not engage in any other work activity or task;
- 8.9.1.4 Control and record the movement of personnel into and exiting the confined space;
- 8.9.1.5 Be able to communicate with personnel inside the confined space and with key/rescue personnel at all times;
- 8.9.1.6 Not enter the confined space, even in an emergency to remove other employees; and
- 8.9.1.7 Knowledgeable / taking part in the development of the rescue plan.

8.10 Personal protective equipment

The **COP** and Confined Space Entry Procedure ensures that:

8.10.1 Where it is not reasonably practicable to ensure the confined space contains a safe oxygen level, or safe levels of airborne contaminants, Black Mountain ensures that:

- a) Every person required to enter the confined space is provided with:
 - i. Appropriate respiratory protective equipment (RPE) such as (SCBA) Self-containing Breathing Apparatus) which would render sufficient protection against the contaminant encountered.
 - ii. Where there is the **risk** of asphyxiation, the entrants to the confined space are provided with self-contained breathing apparatus or other personal protective equipment as may be identified in the risk assessment to protect them from any other health or safety hazards which may be encountered in the confined space.

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- b) Employees are required to make use of full body harnesses when working inside a confined space. Lifelines for each person working inside the confined space must be manned and be attached to the harnesses of the persons working inside the confined space and should run back to a point outside the confined space. Where required specialised equipment must be used to lift or remove employees from the confined space during an emergency.

8.11 Communication

The **COP** and Confined Space Entry Procedure ensures that:

8.11.1 A system of work is in place that provides:

8.11.2 Adequate and effective communication:

- Between involved role players outside the confined space;
- Between those inside the confined space, where the atmosphere may be explosive the use of intrinsically safe equipment will be used;
- Between those inside the confined space where the atmosphere may be explosive the use of intrinsically safe equipment will be used and those persons outside; and
- Control room are informed of the confined space work that will be performed and have a list with names of persons to be called on when there is a possible emergency / emergencies.

8.12 Entry and exit procedures

The **COP** and Confined Space Entry Procedure ensures that:

8.12.1 The Operation will keep record of all instances where confined space entries took place and record these in the records management system and kept for a period of at least 12 months.

8.13 Signs and barricading

The **COP** and Confined Space Entry Procedure ensures that:

8.13.1 The Before any work in relation to a confined space starts, signs will be erected to prevent entry of persons not involved in the work.

8.13.2 Signs must warn against entry by people other than those who are listed on the confined space entry permit, and must be placed at each entrance to the confined space. Signs must be in place for the duration of preparation to do the work, the actual and when work has been completed

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8.13.3 Signposting alone should not be relied on to prevent unauthorised entry to a potential confined space. Security devices, for example locks and fixed barriers, could also be installed where possible.

8.14 Employee training

The **COP**, Annual Induction and where required, specialized training ensures that:

8.14.1 All employees involved with any work or responsibility in relation to a confined space, directly and indirectly, are made conversant with all requirements in terms of safe entry and work inside the confined space.

8.14.2 Training are provided to workers and is role based and cover appropriate information such as but not limited to:

- a) Each person's specific roles and responsibilities in relation to the confined space;
- b) The nature of all hazards associated with a confined space;
- c) The need for, and appropriate use of, **risk** control measures;
- d) The selection, use, fit, testing and storage of any personal protective equipment;
- e) The contents of any relevant confined space entry **permit**, and
- f) Emergency and rescue procedures.

8.15 Maintenance of control measures

The **COP** and Confined Space Entry Procedure ensures that:

8.15.1 Proper maintenance of control measures is in place and forms an integral part of the Operations safe system of work. Maintenance involves visual checks, inspections, testing of equipment, preventative maintenance and remedial work. Equipment that should be regularly inspected includes:

- a) Atmospheric testing and sampling equipment;
- b) Personal protective equipment including respirators;
- c) Ventilation equipment;
- d) Safety harness and lines; and
- e) Emergency and rescue equipment.

8.16 Confined space rescue plan

The **COP** and Confined Space Entry Procedure ensures that:

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- 8.16.1 A Task Based Risk Assessment specific to the task at hand and rescue plan for that confined space are developed by competent personnel that identifies the methods by which a rescue will be initiated, and how personnel will be extracted from the Confined Space in the event of an emergency.
- 8.16.2 Cognisance must be taken of openings for entry and exit that they are of a sufficient size to allow emergency access; openings are not obstructed; and any plant, equipment and personal protective equipment provided for first aid or emergency rescue are maintained in good working order.
- 8.16.3 The rescue plan includes details of the specific equipment required to be in place prior to entry and the location and the number of rescue personnel to be available such as trained first aiders, local emergency services.
- 8.16.4 Rescuers are trained and fit to carry out their task and capable of using any equipment provided for rescue, e.g. breathing apparatus, lifelines, fire-fighting equipment, antidotes.

8.17 Fitness to work

The **COP** and Confined Space Entry Procedure ensures that:

- 8.17.1 All employees will go through the Minimum Standards of Fitness to Perform Work and includes employees required to enter or work in a confined space is assessed and declared medically fit by an occupational medical practitioner, specifically for work in a confined space.
- 8.17.2 The occupational medical practitioner takes into account all potential hazards such as physical, chemical and psychological stresses (not limited to) associated with work in a confined space.

8.18 Record keeping

The **COP** and Confined Space Entry Procedure ensures that any confined space related documents/records are kept at the mine and made readily available for at least 1 year.

8.19 System review

The **COP** and Confined Space Entry Procedure ensures that:

- 8.19.1 The mine's confined space procedure, **risk** assessment, entry **permit** and control measures are reviewed and if necessary revised at appropriate intervals:
- When there is any reason to believe that entry and work is not safe;
 - Any facet of the system is not applicable anymore;
 - Control measures do not minimise the **risk** as far as is reasonably practicable;
 - Before a change at the workplace that is likely to give rise to a new or different health and safety **risk** that the control measure may not effectively control;

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- e) If a new hazard or **risk** is identified;
- f) If the results of consultation indicate that a review is necessary;
- g) If a health and safety representative requests a review;
- h) After an incident occurred, and
- i) At least every 24 months.

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PART D: IMPLEMENTATION

1 IMPLEMENTATION PLAN

1.1 The implementation plan for this COP was compiled to ensure provision for issues such as organizational structures, responsibilities of functionaries and programs and schedules to ensure proper implementation of the COP.

1.2 Information is depicted in the table below:

<u>Action required</u>	<u>Remedial Action</u>	<u>Responsible person and designation</u>
Presentation and approval of the Mine Health and Safety Committee	Present COP to the members of the Mine Health and Safety Committee	C Klopper VOH Manager
Signing off of Code of Practice by Health and Safety Committee and Management	Once COP is presented to the Mine Health and Safety Committee get all stakeholders to sign off	C Klopper VOH Manager
Procedures to be formulated at mine level to ensure compliance with Code of Practice	Procedure formulated	F Haefele Safety Compliance Officer
Training and coaching on procedures	All employees going for induction, promotional training or ex leave will be trained	W van Wyk Training Manager
Brief any relevant changes to current practice through formal communication channels at mine level	communication brief to be distributed to all employees	C Klopper VOH Manager

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2 COMPLIANCE WITH THE COP

- 2.1 The following measures shall be implemented to monitor and ensuring compliance with the COP;

<u>Action required</u>
Incidents discussed at Health and Safety Committee meetings
Internal Audit
External Audit
Legal inspections
Visible felt leadership

3 ACCESS TO THE COP AND RELATED DOCUMENTS

- 3.1 The COP and related documents are readily available at Legal Admin for examination by any affected person electronically or hard copy. Supervisors have access to these documents on the web site of Black Mountain Mine.
- 3.2 The registered trade unions are part of the drafting/ reviewing committees and involved in the signing off and implementation of the COP. This ensures employees, trade unions and management are participants in the health and safety of all employees at Black Mountain Mine.
- 3.3 A register is kept of such person or institutions with copies of the COP, to facilitate updating of such copies. The signed off COP is communicated to the relevant parties, through the Mine Health and Safety Committee, Task Teams, Managers, Supervisors and Health and Safety representatives.
- 3.4 The General Manager ensures that that all employees are fully conversant with those sections of the code of practice relevant to their respective areas of responsibilities.

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ANNEXURE 1: Roles and responsibilities

1. Only trained employees can work in permit-required spaces

1.1. Confined space tasks employees are trained to understand and safely perform the jobs of:

- a) Authorized entrants
- b) Attendants
- c) Entry supervisors

2. Authorized entrants enter and work in permit-required spaces

2.1. They must be able to:

- 2.1.1. Identify the space's hazards and potential consequences, as well as signs and symptoms of exposure.
- 2.1.2. Properly use any necessary equipment to:
 - a) Test, monitor, and ventilate the atmosphere in the space.
 - b) Communicate with others working in and outside the space.
 - c) Protect themselves from exposure to dangerous levels of toxins, power, equipment, etc.

3. Attendants stand outside the space to monitor and protect authorized entrants.

They must be able to:

- 3.1. Remain outside the space during entry operations.
- 3.2. Maintain accurate count of authorized entrants in the space.
- 3.3. Identify the space's hazards, exposure consequences, and signs that authorized entrants have been exposed to hazards.
- 3.4. Stay in constant contact with workers in the space.
- 3.5. Monitor activities in and outside the space that could affect entrant safety.
- 3.6. Order entrants to evacuate the space immediately if:
 - 3.6.1. Conditions in or outside the space endanger authorized entrants.
 - 3.6.2. Workers in the space show signs of dangerous exposure.
 - 3.6.3. The attendant can't safely and effectively perform all his or her duties:
 - a) Summon rescue or emergency services or perform permitted no-entry rescues.

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- i. Keep unauthorized persons away from the space and alert authorized entrants and entry supervisor if such people enter the **permit** space.

4. Entry supervisors take responsibility for permits and safety procedures

4.1. They:

- 4.1.1. Identify the space's hazards, consequences, and signs of exposure.
- 4.1.2. Make sure the entry permit is complete and that:
 - a) Listed tests and hazard removal/controls have been completed;
 - b) Listed procedures are followed;
 - c) Listed safety, communications, and rescue equipment is in place; and
 - d) Rescue services are available.
- 4.1.3. Sign the permit and allow entry into the space.
- 4.1.4. Cancel the entry and permit when operations are completed or the permit expires or a dangerous condition arises.
- 4.1.5. Remove unauthorized individuals from the permit area.