



# NATIONAL OCCUPATIONAL STANDARD FOR MINE SAFETY OFFICER

## APPROVING AUTHORITY

This National Occupational Standard has been prepared and published under the authority of the Zambia Qualifications Authority Board 7<sup>th</sup> May, 2021.

## ZAMBIA QUALIFICATIONS AUTHORITY

The Zambia Qualifications Authority Act No. 13 of 2011 was enacted by the Government of the Republic of Zambia to ***“provide for the development and implementation of a national qualifications framework; establish the Zambia Qualifications Authority; provide measures to ensure that standards and registered qualifications are internationally comparable; and provide for matters connected with, or incidental to the foregoing”***. Among other functions, ZAQA is responsible for ***determining national standards for any occupation***, through various sector specific National Occupational Standards Development Teams (NOSDTs).

## REVISION OF NATIONAL OCCUPATIONAL STANDARDS

National Occupational Standards shall be revised every after **5 years**, or whenever necessary, by the issue of either amendments or of revised editions. It is important that users of National Occupational Standards (NOS) should ascertain that they are in possession of the latest amendments or editions.

## NOS DEVELOPMENT TEAM RESPONSIBLE

This National Occupational Standard was prepared by the Mining National Occupational Standards Development Team, upon which the following organisations were represented:

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7. Kitwe Trades School
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9. Ministry of Labour and Social Security
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11. Sino-Zam College of Science and Technology
12. Solwezi Trades Training Institute
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## FOREWORD

The Zambia Qualifications Authority (ZAQA) is a statutory body under the Ministry of Higher Education established by ZAQA Act No. 13 of 2011 to “**provide for the development and implementation of a national qualifications framework; provide measures to ensure that standards and registered qualifications are internationally comparable; and provide for matters connected with, or incidental to the foregoing**”.

Among other functions, ZAQA is responsible for “**determining national standards for any occupation**”, through various sector specific National Occupational Standards Development Teams (NOSDTs) of experts composed of representation from appropriate authorities, government departments, industry, academia, regulators, consumer associations and non-governmental organisations, etc.

This National Occupational Standard (NOS) has been developed by the Mining National Occupational Standards Development Team in accordance with the procedures and guidelines of ZAQA. All users should ensure that they have the latest edition of this publication as National Occupational Standards are revised from time to time.

This NOS shall be used by, among others, industry, employers, quality assurance bodies, awarding and professional bodies and education and training institutions, as a benchmark to identify training needs, develop job profiles/descriptions, develop curricula and learning programmes, in various sectors where the occupation exists. In the Mining sector, demonstration of competence against this NOS may be required in order to run a business or practice a craft or profession.

## JUSTIFICATION

A safe and healthy workplace not only protects workers from injury and illness, it can also lower injury/illness costs, reduce absenteeism and turnover, increase productivity and quality, and raise employee morale.

The Mine Safety Officer is critical in the prevention of accidents, injuries and work-related illnesses in the workplace. His/her role is to create and implement health and safety policies in accordance with the latest legislation and to ensure that these policies are implemented by management and employees.

This National Occupational Standard highlights core knowledge, skills, competences and personal attributes that Mine Safety Officers must possess to be successful in their jobs.

## ACRONYMS AND ABBREVIATIONS

CS	Core Skill
MSO	Mine Safety Officer
NOS	National Occupational Standard
NOSDT	National Occupational Standards Development Team
OK	Organizational Knowledge
PC	Performance Criteria
PS	Professional Skill
RK	Regulatory Knowledge
RPL	Recognition of Prior Learning
TK	Technical Knowledge
ZAQA	Zambia Qualifications Authority
ZQF	Zambia Qualifications Framework
OSH	Occupational Safety and Health
EIZ	Engineering Institution of Zambia

## GLOSSARY OF TERMS

For the purposes of this NOS, the following terms and definitions shall apply:

**Core Skills/Generic Skills:** are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the NOS, these include communication related skills that are applicable to most job roles.

**Function:** is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of NOS.

**Job Title:** defines a unique set of functions that together form a unique employment opportunity in an organization.

**Knowledge and Understanding:** are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.

**National Occupational Standards (NOS):** are statements of the standards of performance individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding. They are precise descriptions of what an individual is expected to be able to do in his/her work role.

**National Occupational Standards (NOS) Code:** is a unique reference code that identifies a NOS.

**National Occupational Standards Development Team (NOSDT):** means an established group of national stakeholders/experts responsible for the development of National Occupational Standards within a specific economic sector or occupation.

**Occupation:** is a set of job roles, which perform similar/related set of functions in an industry.

**Organizational Context:** includes the way the organization is structured and how it operates, including the extent of operative knowledge that managers have in their relevant areas of responsibility.

**Performance Criteria:** are statements that together specify the standard of performance required when carrying out a task.

**Scope:** is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.

**Sector:** is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.

**Sub Sector:** is derived from a further breakdown based on the characteristics and interests of its components.

**Technical Knowledge:** is the specific knowledge needed to accomplish specific designated responsibilities.

**Unit Title:** gives a clear overall statement about what the incumbent should be able to do.



## 1. OVERVIEW

This is an introductory section providing a brief summary and specific information or commentary about the content of the NOS and the targeted sector and occupation to help the user judge whether it is relevant to them.

<b>NOS Code</b>	<b>NOS.MSO.01</b>
<b>Occupation</b>	Accident Prevention/Mine Rescue/Safety Health and Environment.
<b>Job Title</b>	Mine Safety Officer
<b>Job Description</b>	A Mine Safety Officer monitors hazardous situations and is responsible for ensuring adherence to safety regulations
<b>Job Purpose</b>	Mine Safety Officers are responsible for planning, implementing and overseeing miner's safety at work. He/she ensures compliance with national occupational health and safety regulations. Other duties include. Monitoring and assessing hazardous and unsafe situations and developing measures to assure personnel as well as equipment safety.
<b>ZQF Level</b>	6
<b>Sector</b>	Mining
<b>Sub sector</b>	Underground and Opencast Mines
<b>Other Economic Sector(s) in which the Occupation is Practiced</b>	Construction, Manufacturing, Transportation, Energy, Health, Telecommunication, Education/ training, Metallurgical plants, Government Ministries/Institutions etc.
<b>Other Similar Jobs that can be performed by the Mine Safety Officer</b>	Safety,Health,Environment and Quality Officer/Manager,Safety/Health Advisor, Safety Specialist/Manager, Safety Technician, Safety and Occupational Health Specialist, Rescue/ Emergency Officer/Operator, etc.
<b>Minimum Educational Job Entry Qualification(s)</b>	Grade 12 Certificate, First aid Certificate, Certificate in Safety or equivalent, Level 3 Certificate. As added advantage - Degree or diploma qualification in environmental management, environmental engineering or related programme or degree or diploma in occupation health and safety obtained from a recognized institution.
<b>Practicing License Requirements (if any)</b>	Blasting License where applicable and membership with EIZ is an added advantage
<b>Training/RPL (Suggested)</b>	1. Awareness of the Mines Safety Department Rules and Regulations and their application 2. Understanding of a mine from safety perspective 3. Mine safety 4. 5S workplace organisation methods 5. Use of Personal Protective Equipment
<b>Minimum Job Entry Age</b>	25
<b>Prior Experience (Suggested)</b>	2 years Mining experience, 1-2 years of experience as safety personnel or as safety support staff
<b>Performance Criteria</b>	As described in the Units under Section 4

## **2. SCOPE**

This National Occupational Standard specifies the fundamental knowledge and understanding, skills and competences that Safety Officers must possess to be successful in their jobs.

## **3. PERSONAL ATTRIBUTES (VALUES, ETHICS AND ATTITUDES)**

This job requires an individual to possess ability to plan and prioritise, be safety conscious, be familiar with quality, health and environmental norms. He or she should have attention to detail and be an effective team player, good communication skills and be able to influence a strong safety orientation amongst staff. Furthermore, he/she should be physically fit.

## **4. UNITS AND ELEMENTS**

This National Occupational Standard is divided into 3 units representing the tasks that a job holder should undertake in his/her day to day work. Each unit is further broken down into elements depicting the number of activities to be carried out for the successful execution of a particular task.

**UNIT 1** [This unit is about demonstrating awareness of applicable safety rules, safety equipment, dangerous situations, safety locations in a mine and development of a rescue plan].

<b>Unit No.</b>	<b>01</b>
<b>Unit Title</b>	<b>Demonstrate awareness of applicable safety rules, safety equipment, dangerous situations and safety locations in a mine and develop a rescue plan</b>
<b>Description</b>	This unit is about demonstrating awareness of applicable safety rules, safety equipment, dangerous situations, safety locations in a mine and development of a rescue plan.
<b>Scope</b>	This unit covers the following: <ul style="list-style-type: none"> <li>• Demonstrate understanding of safety rules and compliance, safety equipment and clear understanding of dangerous situations and safety locations along with the development and execution of a rescue plan.</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Demonstrate understanding of safety rules and compliance, safety equipment and clear understanding of dangerous situations and safety locations along with the development and execution of a rescue plan</b>	<p>To be competent, the individual must be able to:</p> <p>PC1. Demonstrate knowledge in and an understanding of Mines Safety Department Rules and other Occupational Safety and Health Regulations.</p> <p>PC2. Demonstrate knowledge in and understanding of local and international safety standards.</p> <p>PC3. Maintain organisational and Mines Safety Department reports.</p> <p>PC4. Demonstrate knowledge in and understanding of the utility and importance of safety of equipment and personal protective clothing.</p> <p>PC5. Demonstrate knowledge in and understanding of the dangerous situations arising out of flooding, fire, roof fall, explosion, mechanical fault, electrical faults, human mistake, signalling errors.</p> <p>PC6. Demonstrate familiarity with the roles of helpers for rescue management purposes.</p> <p>PC7. Rehearse rescue drills periodically</p> <p>PC8. Demonstrate awareness of siren or messages used for safety/ emergency situations.</p> <p>PC9. Identify safety locations in a mine and in case of emergency, set up a rescue office.</p> <p>PC10. Develop a rescue plan and support rescue operations after the arrival of mine manager or the operations in-charge.</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organisational Context (Knowledge of the company/ organisation)</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>OK1. Relevant standards and procedures followed in the company.</p> <p>OK2. Different types of safety requirements at the mine.</p>

<b>and its processes)</b>	OK3. Processes like procurement, store management, inventory management, quality management and key contact points for query resolution. OK4. Risk management and Engineering Skills.
<b>B. Technical Knowledge</b>	The individual on the job must demonstrate knowledge and understanding of: TK1. Mines safety rules, regulations and occupational safety policy. TK2. Mine safety standards including noise levels, pollutants, etc. TK3. Relevant personal protective equipment.
<b>C. Regulatory context (Knowledge of Mines Safety Rules and Regulations)</b>	The individual on the job must demonstrate knowledge and understanding of: RK1. Different types of mines (Opencast and underground) and details of the mine he/she is working in. RK2. Mine organisation, first aid and hygiene, time keeping, need for discipline and punctuality. RK3. Benching in quarries/open cast mines, mining methods in underground, main technological process of mining, dressing of overhangs, undercuts, fencing, first aid and hygiene. RK4. Standing orders in force at the mine, safety in the vicinity of machinery. RK5. Shot-firing and safety regulations, how and where to take shelter. RK6. Duties of workmen/helpers. RK7. Provision of wages working hours and work place injury compensation as per the relevant. RK8. Mining safety procedures. RK9. Consequences of violating safety procedures.
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Reading Skills</b>
	The individual on the job must be able to: CS1. Read and interpret symbols and measurements. CS2. Read information documents. CS3. Read and analyse the available data about the site.
	<b>Writing Skills</b>
	The individual on the job must be able to: CS4. note down observations (if any) CS5. fill in documentation or enter information (in official language) in online systems under the guidance of the supervisor
<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	The individual on the job must be able to: CS6. discuss task lists, schedules and activities CS7. effectively communicate with superiors, colleagues and regulators CS8. Listen attentively and comprehend the information given by various sources about the site.
<b>B. Professional Skills</b>	<b>Plan and Organise</b>
	The individual on the job must be able to: PS1. plan and organise the work order and jobs PS2. Organise all process manuals so that sorting out/accessing information is easy.

	<b>Judgment and Critical Thinking</b>
	The individual on the job must be able to: PS3. Use common sense and make sound judgments in day to day activities. PS4. Use reasoning skills to identify and resolve basic problems. PS5. Use intuition to detect any potential problems which could arise during operations.
	<b>Desire to Learn and Take Initiatives</b>
	The individual on the job must be able to: PS6. Follow instructions and work on areas of improvement identified. PS7. Complete the assigned tasks with minimum supervision. PS8. Complete the job within the agreed timelines and quality norms.
	<b>Problem Solving and Decision Making</b>
	The individual on the job must be able to: PS9. detect problems in day to day tasks PS10. discuss possible solutions to address problems with the supervisor PS11. make decisions in emergency situations in the absence of the supervisor (as per the authority matrix defined by the organisation)

**UNIT 2** [This unit is about organising/facilitating safety trainings and planning and organising meetings of the safety team/section].

<b>Unit No.</b>	<b>02</b>
<b>Unit Title</b>	<b>Organise/facilitate safety trainings and meetings of safety team/section and support vocational training related to safety</b>
<b>Description</b>	This unit is about organising for and training new workers on safety rules, regulations, personal protective equipment, usage of safety equipment and organising meetings of the safety team/section
<b>Scope</b>	This unit covers the following: <ul style="list-style-type: none"> <li>Conduct training on safety rules and regulations and on safe equipment usage</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Conduct training on safety rules and regulations and on safety equipment usage and importance</b>	To be competent, the individual must be able to: PC1. Carry out safety awareness and of induction newly recruited workers. PC2. Plan and organise refresher training courses on safety for existing workers. PC3. Create awareness on safety equipment in new workers. PC4. Plan and organise refresher training courses on safety equipment for existing workers. PC5. Organise periodic meetings of safety team/section. PC6. Support personnel in charge of vocational training in conducting regular trainings to ensure safety norms are communicated and understood. PC7. Carry out accident/ incident investigation.
<b>Knowledge and Understanding (K)</b>	
<b>A. Organisational Context (Knowledge of the company/ organisation and its processes)</b>	The individual on the job must demonstrate knowledge and understanding of: OK1. relevant standards and procedures followed in the company OK2. different types of safety requirements at the mine OK3. processes like procurement, store management, inventory management, quality management and key contact points for query resolution
<b>B. Technical Knowledge</b>	The individual on the job must demonstrate knowledge and understanding of: TK1. Mines safety rules and regulations TK2. Mine safety standards including noise levels, pollutants, etc. TK3. Relevant personal protective equipment.
<b>C. Regulatory context (Knowledge of Mines Safety Rules and Regulations)</b>	The individual on the job must demonstrate knowledge and understanding of: RK1. different types of mines and details of the mine he/she is working in RK2. mine organisation, time keeping, need for discipline and punctuality RK3. benching in quarries/open cast mines, dressing of overhangs, undercuts, fencing, first aid and hygiene RK4. standing orders in force at the mine, safety in the vicinity of machinery

	<p>RK5. shot-firing and safety regulations, how and where to take shelter</p> <p>RK6. duties of workmen/helpers</p> <p>RK7. provision of wages working hours and work place injury compensation as per the relevant regulations</p> <p>RK8. mining safety procedures</p> <p>RK9. consequences of violating safety procedures</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Reading Skills</b>
	<p>The individual on the job must be able to:</p> <p>CS1. read and interpret symbols and measurements</p> <p>CS2. read information documents</p> <p>CS3. read and analyse the available data about the site</p>
	<b>Writing Skills</b>
	<p>The individual on the job must be able to:</p> <p>CS4. note down observations (if any)</p> <p>CS5. fill in documentation or enter information in online systems under the guidance of the supervisor</p>
	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The individual on the job must be able to:</p> <p>CS6. discuss task lists, schedules and activities</p> <p>CS7. effectively communicate with superiors, colleagues and regulators</p> <p>CS8. listen attentively and comprehend the information given by various sources about the site</p>
<b>B. Professional Skills</b>	<b>Plan and Organise</b>
	<p>The individual on the job must be able to:</p> <p>PS1. plan and organise the work order and jobs</p> <p>PS2. organise all process manuals so that sorting out/accessing information is easy</p>
	<b>Judgment and Critical Thinking</b>
	<p>The individual on the job must be able to:</p> <p>PS3. use common sense and make judgments during day to day activities</p> <p>PS4. use reasoning skills to identify and resolve basic problems</p> <p>PS5. use intuition to detect any potential problems which could arise during operations</p>
	<b>Desire to Learn and Take Initiatives</b>
	<p>The individual on the job must be able to:</p> <p>PS6. follow instructions and work on areas of improvement identified</p> <p>PS7. complete the assigned tasks with minimum supervision</p> <p>PS8. complete the job within the agreed timelines and quality norms</p>
<b>Problem Solving and Decision Making</b>	
	<p>The individual on the job must be able to:</p> <p>PS9. detect problems in day to day tasks</p> <p>PS10. discuss possible solutions to address problems, with the supervisor</p> <p>PS11. make decisions in emergency situations</p>

**UNIT 3** [This unit is about maintaining health and safety measures critical in mines].

<b>Unit No.</b>	<b>03</b>
<b>Unit Title</b>	<b>Maintain health and safety</b>
<b>Description</b>	This unit is about maintaining health and safety measures critical in mines
<b>Scope</b>	This unit covers the following: <ul style="list-style-type: none"> <li>• Maintain health and safety measures critical in mines</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Maintain health and safety measures critical in mines</b>	To be competent, the individual must be able to: <p>PC1. comply with occupational health and safety regulations adopted by the employer</p> <p>PC2. adhere to mining operation procedures with respect to workplace health and safety</p> <p>PC3. follow the correct safety steps in case of accidents or major failure</p> <p>PC4. comply with safety regulations and procedures in case of fire hazards</p> <p>PC5. operate various types of fire extinguishers</p> <p>PC6. work responsibly and as safely and carefully as possible so as not to put the health and safety of self or others at risk, including members of the public and equipment</p> <p>PC7. perform storage and transportation of hazardous materials compliant with safety guidelines prescribed by Mines Safety Department</p> <p>PC8. deal with misfires as per statutory requirements, e.g. RK12 code of practice for safe handling and transportation of dangerous materials and heavy equipment.</p> <p>PC9. identify characteristics of post-blast fumes and take necessary precautions</p> <p>PC10. wear safety gear such as hardhat, respiratory protection, eye protection, ear protection</p> <p>PC11. adhere to manufacturer's instructions for care and safe operation of the equipment</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organisational Context (Knowledge of the company/ organisation and its processes)</b>	The individual on the job must demonstrate knowledge and understanding of: <p>OK1. relevant standards and procedures followed in the company</p> <p>OK2. different types of safety requirement at the mine</p> <p>OK3. processes like procurement, store management, inventory management, quality management and key contact points for query resolution</p>
<b>B. Technical Knowledge</b>	The individual on the job must demonstrate knowledge and understanding of: <p>TK1. mines safety rules and regulations</p> <p>TK2. mine safety standards including noise levels, pollutants, etc.</p> <p>TK3. relevant personal protective equipment</p>



	TK4. primary tire of Occupational Safety and Health (accident prevention, standard operating procedures, etc.), secondary tire (rescue operations, periodical medical exams and first aid provision) and tertiary tire (counselling and rehabilitation, and compensation)
<b>C. Regulatory context (Knowledge of Mines Safety Rules and Regulations)</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>RK1. benching in quarries, dressing of overhangs, undercuts, fencing</p> <p>RK2. first aid and hygiene</p> <p>RK3. code of traffic in specific areas of the mine and significance of fences</p> <p>RK4. standing orders in force at the mine and safety in the vicinity of machinery</p> <p>RK5. shot-firing and safety regulations and how and where to take shelter</p> <p>RK6. mining safety procedures</p> <p>RK7. Consequences of violating safety procedures</p> <p>RK8. In-House prepared emergency preparedness/disaster management plan</p> <p>RK9. Occupational health, safety and environmental impact of mining</p> <p>RK10. Sources of dust, noise and vibration, heat, gases and measures to minimise them.</p> <p>RK11. hazardous material safety and security rules and regulations as prescribed by the Mines Safety Department</p> <p>RK12. code of practice for safe handling and transportation of dangerous material and heavy equipment.</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Reading Skills</b>
	The individual on the job must be able to: CS1. read and interpret symbols and measurements CS2. read information documents CS3. understand and analyse the available data about the site
	<b>Writing Skills</b>
	The individual on the job must be able to: CS4. note down observations (if any) CS5. fill in documentation or enter information in online systems under the guidance of the supervisor
<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	The individual on the job must be able to: CS6. discuss task lists, schedules and activities CS7. effectively communicate with superiors, colleagues and regulators CS8. listen attentively and comprehend the information given by various sources about the site
<b>B. Professional Skills</b>	<b>Plan and Organise</b>
	The individual on the job must be able to: PS1. plan and organise the work order and jobs PS2. organise all process manuals so that sorting out/accessing information is easy

	<b>Judgment and Critical Thinking</b>
	The individual on the job must be able to: PS3. use common sense and make sound judgments in day to day activities PS4. use reasoning skills to identify and resolve basic problems PS5. use intuition to detect any potential problems which could arise
	<b>Desire to Learn and Take Initiatives</b>
	The individual on the job must be able to: PS6. follow instructions and work on areas of improvement identified PS7. complete the assigned tasks with minimum supervision PS8. complete the job within the agreed timelines and quality norms
	<b>Problem Solving and Decision Making</b>
	The individual on the job must be able to: PS9. detect problems in day to day tasks PS10. discuss possible solutions to address problems, with the supervisor PS11. make decisions in emergency situations in the absence of the supervisor (as per the authority matrix defined by the organisation)

## **5. EQUIPMENT, TOOLS AND CONSUMABLE MATERIALS**

These include, but not limited to: personal protective equipment, first aid kit, stretcher, medical kit, safety warning and general information signs, climbing ladders, lamp/torch, safety tools and equipment such as fire extinguishers and barricades, copies of mine safety rules and regulations, company's safety policy/procedure, company's standard operating procedures, incident/accident reporting templates, etc.

## **6. DILEMMAS/CHALLENGES AND COMPLEXITIES FOR A JOB HOLDER**

Dilemmas associated with the job of Mine Safety Officer include: working in dangerous areas, lifting relatively heavy materials, long working hours, pressure from supervisors and colleagues, pressure from government regulators, exposure to mining physical, chemical, and biological hazards, working in extreme weather such as hot and cold conditions, employees' lack of interest in safety matters and ignorance and negligence towards following the instructions put in place as precautions to avoid accidents and injuries at work places, etc.

### **6.1 Alternative Choices (Solutions) to Dilemmas and Complexities**

Solutions to dilemmas include: exercising regularly to maintain physical fitness, undertaking training in team management, wearing protective clothing and ensuring their availability and use by other employees, conducting workplace safety sensitization and awareness meetings/training sessions, enforcing company's safety and standard operating procedures at all times, consulting extensively within and outside one's department/team on safety issues, The Safety Officer should be able to Carry out accident/ Incident investigation to prevent future recurrence of these incidents.

## **7. WORKING CONDITIONS/ENVIRONMENT**

Working conditions include: underground and opencast mines, cold, hot and wet conditions, working at heights, stand/walk for long hours, lifting materials, working in day or night shifts, areas that are noisy and dusty, areas with limited lighting and ventilation, etc.

## **8. PARTIES INVOLVED/INTERACTING WITH THE JOB HOLDER OR TRAINEE**

### **8.1 Internal/Within the Organization**

Supervisors, trainers, safety team/section members, other colleagues, etc.

### **8.2 External/Outside the Organization**

Government regulators, trainers, suppliers of equipment/tools/consumables, fellow Mine Safety Officers from other companies, labour unions/occupational health and safety associations, etc.

## **9. PHYSICAL DEMANDS ON THE BODY**

- Physique to withstand strenuous conditions;
- Be able to walk and stand for long periods of time;
- Bend, stretch, twist, or reach out;
- Be able to lift relatively heavy materials, tools and equipment;
- Be able to use fingers, hands and feet with ease to complete the assigned task (dexterity);

## **ANNEX A**

### **Criteria for Assessments based on this NOS**

#### **A.1 Guidelines for Assessment**

**A.1.1** Criteria for assessment for curricula and learning programmes based on this NOS will be created by curricula and programmes developers. Each Performance Criteria (PC) will be assigned marks proportional to its importance in the NOS. Curricula and programmes developers will also lay down proportion of marks for theory and practical skills for each performance criteria, giving more weight to practical skills.

There shall be allocated the 'Total Mark', which will be the sum of all marks in each Unit, distributed across the number of PCs in that particular Unit. The 'out of' mark will be the mark allocated to each PC, which will be shared between theory and skills practical assessments.

**A.1.2** Individual awarding/assessment bodies or institutions and other users of the NOS will create unique question papers for the theory part and evaluations for skill practical part for their respective candidates.

## ANNEX B NOS Version Control

This Annex gives details necessary for the tracking of the NOS versions based on the number of revisions.

<b>NOS Code</b>	NOS.MSO.01		
<b>ZQF Level</b>	6	<b>Version Number</b>	01
<b>Sector</b>	Mining	<b>Date of Approval</b>	7 <sup>th</sup> May, 2021
<b>Sub Sector</b>	Underground and Opencast Mines	<b>Date of Last Review</b>	N/A
<b>Occupation</b>	Accident Prevention /Mine Rescue/ Safety Health and Environment.	<b>Date of Next Review</b>	May 2026

