



**NOS.SS.01  
FIRST EDITION**

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**NATIONAL OCCUPATIONAL STANDARD FOR SAFETY  
SPECIALIST**

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**ZAMBIA QUALIFICATIONS AUTHORITY**

## APPROVING AUTHORITY

This National Occupational Standard has been prepared and published under the authority of the Zambia Qualifications Authority Board on 20<sup>th</sup> December 2023.

## 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 for the registration and accreditation of qualifications; 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) ascertain that they are in possession of the latest amendments or editions.

## NOS DEVELOPMENT TEAM RESPONSIBLE

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

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2. Engineering Institution of Zambia
3. Ministry of Local Government and Rural Development
4. Road Development Agency
5. Surveyors Institute of Zambia
6. University of Zambia
7. Zambia Institute of Architects
8. Association of Building and Civil Engineering Contractors
9. Water Resources Management Authority
10. Bari Zambia Limited
11. Zulu Barrow Construction
12. Ng'andu Consulting
13. Zambia Qualifications Authority – Secretariat

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## FOREWORD

The Zambia Qualifications Authority (ZAQA) is a statutory body under the Ministry of Education established by ZAQA Act No. 13 of 2011 to “**develop and implement a national qualifications framework; register and accredit qualifications and ensure that standards and registered qualifications are internationally comparable**”.

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 Construction 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 Construction sector, demonstration of competence against this NOS may be required in order to run a business or practice a craft or profession.

## JUSTIFICATION

Safety Specialist is one of the critical trades in the construction industry which is common to all types of constructions. A Safety Specialist should understand health and safety issues related to building, civil engineering, construction technology processes, construction plant and equipment, and legislation relating to occupational health and safety. A Safety Specialist is important in the industry because they will ensure that construction safety standards are implemented and adhered to on construction sites and so contribute to reducing occupational health incidences.

The development of this National Occupational Standard will ensure relevance of the training to latest advancements in industry, resulting in adequately and appropriately skilled Safety Specialists.

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

## **ACRONYMS AND ABBREVIATIONS**

SS	Safety Specialist
CS	Core Skill
NOS	National Occupational Standard
NOSDT	National Occupational Standards Development Team
OK	Organisational Knowledge
PC	Performance Criteria
PS	Professional Skill
RPL	Recognition of Prior Learning
TK	Technical Knowledge
ZAQA	Zambia Qualifications Authority
ZQF	Zambia Qualifications Framework
OSHE	Occupational Safety, Health and Environment

## 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.

**Disability:** Physical or mental impairment that substantially limits one or more major life activities.

**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 organisation.

**Knowledge and Understanding:** are statements which together specify the technical, generic, professional and organisational 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.

**Organisational Context:** includes the way the organisation 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>	NOS.SS.01
<b>Occupation</b>	Safety Specialist
<b>Job Title</b>	Safety Specialist
<b>Job Description</b>	<p>The Safety Specialist is responsible for monitoring and assessing hazardous and unsafe situations and developing measures to assure personnel safety. The specialist is responsible for supporting the development and implementation of good Safety practices. Further, the safety specialist is responsible for supporting the implementation of projects and operations in line with policies, common system standards and international best practices. As part of his/her duty of care, the Safety Specialist should commit to ensuring that people do not fall sick or sustain injuries when carrying out operations. He/she ensures a Zero tolerance approach to poor health and safety performance and supports construction health and safety training, and monitoring and compliance. Safety Specialist also needs to act as Rescue/Emergency operator.</p>
<b>Job Purpose</b>	<p>A Safety Specialist responds to emergency situations involving hazardous materials, fire and smoke incidents, or unknown hazards, prepares reports of findings and submits recommendations. Further, he/she analyses accident and incident reports for trends; makes recommendations for correcting unsafe conditions and actions.</p> <p>The Safety Specialist assists the Principal Agent, Engineer or Project Manager to effectively implement health and safety management systems;</p> <p>Reviews practices on construction sites; Reviews risk assessments, inspections, incident investigations and other reports and offer advice to on-site teams to ensure that good practices are upheld;</p> <p>Assists site teams to correct deviations from health and safety requirements including managing breaches of requirements and poor performance by personnel and contractors.</p> <p>Monitors performance and addresses incidents.</p>

	<p>Carries out inspections and system reviews to ensure that project operations comply with health and safety, legal and institutional requirements.</p> <p>Carries out incident investigations.</p> <p>Follows up on actions to address non-conformities or issues raised in incident investigations, inspections and audits to ensure that the issues have been effectively addressed and lessons learned shared.</p> <p>Carries out actions to improve the effectiveness of health and safety critical controls for the project;</p> <p>Uses trend analysis to monitor data from sites for the purposes of addressing poor performance;</p>
<b>ZQF Level</b>	6
<b>Sector</b>	Construction
<b>Sub sector</b>	Real Estate and Infrastructure Construction
<b>Other Economic Sector(s) in which the Occupation is Practiced</b>	Construction, Manufacturing, Telecommunication, Energy, Education/training, and other related sectors.
<b>Other Similar Jobs that can be Performed in the Occupation</b>	Safety Coordinator, Safety Superintendent, Safety Supervisor, Health and Safety Manager, etc.
<b>Minimum Educational Job Entry Qualification(s)</b>	Certificate / Diploma in Construction, Engineering
<b>Practicing License Requirements (if any)</b>	No. (But Membership with the Engineering Institution of Zambia is recommended).
<b>Training/RPL (Suggested)</b>	<ol style="list-style-type: none"> <li>1. Training in Occupational health and safety in Construction</li> <li>2. Diploma or Certification</li> </ol>
<b>Minimum Job Entry Age</b>	20 years
<b>Prior Experience (Recommended)</b>	<ol style="list-style-type: none"> <li>1. Non trained worker: 3 years site experience in the same occupation</li> <li>2. Trained worker: 1 year site experience as an apprentice Safety Specialist</li> </ol>
<b>Performance Criteria</b>	As described in the Units under Section 4

## **2. SCOPE**

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

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

This job requires ability to do basic planning and prioritising, ability to work in a team, physique to sustain strenuous conditions, high technological exposure to handle various equipment, tools and materials, sensitivity towards safety for self, others and equipment, willingness to work across various locations in ongoing construction work environment whilst working at the site, be well versed with tasks, functions, standards, specifications, codes of practice and safety norms applicable to construction works, be honest and results oriented, etc.

Develops and implements sustainable business strategies, thinks long term and externally in order to positively shape the project and or Workplaces. Anticipates and perceives the impact and implications of future decisions and activities on other parts of the project and or Workplaces. Treats all individuals with respect; responds sensitively to differences and encourages others to do the same. Upholds organizational and ethical norms. Maintains high standards of trustworthiness. Role model for diversity and inclusion. Evaluates data and courses of action to reach logical, pragmatic decisions. Takes an unbiased, rational approach with calculated risks. Applies innovation and creativity to problem-solving. Expresses ideas or facts in a clear, concise, and open manner. Communication indicates a consideration for the feelings and needs of others. Actively listens and proactively shares knowledge. Handles conflict effectively, by overcoming differences of opinion and finding common ground.

## **4. UNITS AND ELEMENTS**

This National Occupational Standard is divided into five (5) Units representing the tasks that a jobholder 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 hazard identification and risk assessment].

<b>Unit No.</b>	<b>01</b>
<b>Unit Title</b>	<b>Hazard Identifications and Risk Assessment (HIRA)</b>
<b>Description</b>	This Unit describes the steps required when working in construction environment to keep workers and the workplace risk free, and to promote a preventative safety and health culture.
<b>Scope</b>	This Unit covers the following: <ul style="list-style-type: none"> <li>the process of HIRA and all steps of Hazard Identification, Risk Assessment, Risk Ranking, Risk Control, and Risk Review</li> </ul>
<b>Performance Criteria (PC) with respect to the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>process of HIRA and all steps of Hazard Identification, Risk assessment, Risk Ranking, Risk Control, and Risk Review</b>	To be competent, the individual must be able to: <ul style="list-style-type: none"> <li>PC1. Identify hazards at an early stage of any operation to enable effective measures to prevent accidents.</li> <li>PC2. Conduct hazard identification and risk assessment in accordance with industry standards.</li> <li>PC3. Determine all possible factors that may harm the workers.</li> <li>PC4. Assess the risks by determining the probability of incidents and analyzing it's severity.</li> <li>PC5. Assess the Safety risks and ensure that they are within acceptable limits.</li> <li>PC6. Identify the existing safeguards and controls.</li> <li>PC7. Make suggestions to counter the likelihood of hazards.</li> <li>PC8. Review the performance of the safeguards and controls.</li> </ul>
<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: <ul style="list-style-type: none"> <li>OK1. Workplace Safety, Health and Wellness Policies.</li> <li>OK2. Construction Management Processes including procurement Stores, and Contract Administration.</li> <li>OK3. Disciplinary code of conduct.</li> <li>OK4. Emergency Preparedness Plans.</li> <li>OK5. Health surveillance schedules.</li> </ul>
<b>B. Technical Knowledge</b>	The individual on the job must demonstrate knowledge and understanding of: <ul style="list-style-type: none"> <li>TK1. Baseline Risk Assessments.</li> <li>TK2. Issue-Based Risk Assessments.</li> <li>TK3. Continuous Risk Assessments which forms part of all inspections and observations that occur on routine basis.</li> <li>TK4. Identification of Hazards through field visits and study of all procedures and input documents.</li> <li>TK5. Risk Assessment Methodology providing a quantitative assessment of potential risks consistent with the planned risk acceptance criterion.</li> <li>TK6. Risk management using the appropriate Hierarchy of controls.</li> <li>TK7. Review of control measure for continuous improvement.</li> </ul>

<b>C. Regulatory Knowledge</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>RK1. National Council for Construction Act of 2022.          RK2. All applicable Safety, Health and wellness legislation.          RK3. National Occupational Safety and Health Policy.</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The individual on the job must be able to:</p> <p>CS1. Write in English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site.          CS2. Prepare and provide clear and simple instructions, details and sketches to co-workers.          CS3. Prepare reports.</p>
	<b>Reading Skills</b>
	<p>The individual on the job must be able to:</p> <p>CS4. Read English and be able to or have the means to give simple instructions in the local language used at the site.          CS5. Read and interpret sketches, drawings or instructions provided for the required work.</p>
<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The individual on the job must be able to:</p> <p>CS6. Listen attentively and interpret communication/instructions from the supervisor and other co-workers.          CS7. Convey information clearly and concisely to co-workers.</p>
	<b>Decision Making</b>
	<p>The individual on the job must be able to:</p> <p>PS1. Determine and report to the superior whether the working space is safe for working.</p>
	<b>Plan and Organise</b>
	<p>The individual on the job should be able to:</p> <p>PS2. Plan work and organise required resources in coordination with team members and superiors.</p>
	<b>Customer Centricity</b>
	<p>The individual on the job should be able to:</p> <p>PS3. Meet the safety requirements of the client and wellbeing of all employees.</p>
<b>Problem Solving</b>	
<p>The individual on the job should be able to:</p> <p>PS4. Resolve any conflicts within the team.</p>	
<b>Analytical Thinking</b>	
<p>The individual on the job should be able to:</p> <p>PS5. Analyse and convey to the superior and carry out remedial action.</p>	
<b>Critical Thinking</b>	
<p>The individual on the job should be able to:</p> <p>PS6. Identify and deal with or report violation of any safety norms which may lead to accidents.</p>	

**UNIT 2** [This unit is about safety, health and wellness].

<b>Unit No.</b>	<b>02</b>
<b>Unit Title</b>	<b>Safety, Health and well-being</b>
<b>Description</b>	This Unit describes the skills and knowledge required to reduce work related injuries and accidents
<b>Scope</b>	This Unit covers the following: <ul style="list-style-type: none"> <li>• Safety, health and wellness activities to prevent work related injuries and accidents.</li> <li>• Emergency management.</li> <li>• Ensure mental and emotional well-being.</li> <li>• Conduct training on safety rules and regulations and on safe equipment usage.</li> </ul>
<b>Performance Criteria (PC) with respect to the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Safety, health and wellness activities to prevent work related injuries and accidents</b>	To be competent, the individual must be able to: PC1. Develop accident prevention and wellness programs to cover all levels of employees. PC2. Prepare a safety, health and wellness plan. PC3. Monitor safety, health and wellness measures. PC4. Cultivate a safety, health and wellness culture. PC5. Prepare safety, health and wellness reports.
<b>Emergency management</b>	To be competent, the individual must be able to: PC6. Create an Emergency Action Plan (EAP). PC7. Perform actions to avoid emergencies including deterrence and surveillance. PC8. Execute actions in the EAP in the event of an emergency. PC9. Document and report emergencies. PC10. Plan and execute emergency drills to ensure emergency readiness of the work force.
<b>Ensure mental and emotional wellbeing</b>	To be competent, the individual must be able to: PC11. Provide mental and emotional health support. PC12. Monitor work conditions to track mental and emotional health triggers including stress, anxiety, depression, and fatigue. PC13. Check, monitor, and mitigate against substance abuse. PC14. Create a mentally healthy organisation culture. PC15. Conduct mental and emotional wellbeing awareness training
<b>Conduct training on safety rules and regulations and on safety equipment usage</b>	To be competent, the individual must be able to: PC16. Carry out safety awareness and induction of newly recruited workers. PC17. Plan and organise refresher training courses on safety for existing workers. PC18. Create awareness on safety equipment in new workers. PC19. Plan and organise refresher training courses on safety equipment for existing workers. PC20. Organise periodic meetings of safety team/section.

	<p>PC20. Support personnel in charge of vocational training in conducting regular trainings to ensure safety norms are communicated and understood.</p> <p>PC22. Carry out accident/ incident investigation.</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organisational Context (Knowledge of the company/ organisation and its processes)</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>OK1. Relevant safety, health and wellness standards, policies and procedures followed in the company.</p> <p>OK2. Different types of safety requirements at the Construction site</p> <p>OK3. Procurement, store management, inventory management, quality management and key contact points for query resolution processes.</p> <p>OK4. Organisation safety culture.</p>
<b>B. Technical Knowledge</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>TK1. Hazard perception, identification and monitoring.</p> <p>TK2. Accident prevention.</p> <p>TK3. Risk management.</p> <p>TK4. Preparation of health and safety plans.</p> <p>TK5. Preparation of emergency action plans.</p> <p>TK6. Preparation of safety reports.</p> <p>TK7. Relevant Statutory Bodies standards and compliance procedures within the sector.</p> <p>TK8. Construction safety standards including noise levels, pollutants, etc.</p> <p>TK9. Relevant personal protective equipment.</p> <p>TK10 Construction Technology Techniques.</p> <p>TK11 Construction Management Processes including procurement and Contract Administration.</p> <p>TK12. Communication Skills, interpretation of Drawings and contract documentations.</p>
<b>C. Regulatory context (Knowledge of Constructions Safety Rules and Regulations)</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>RK1. National and international standards for accident prevention.</p> <p>RK2. Occupational health and safety management ISO 45001.</p> <p>RK3. Different types of Constructions and details of the construction he/she is working in.</p> <p>RK4. Construction organisation, time keeping, need for discipline and punctuality.</p> <p>RK5. Benching in quarries/open cast Constructions, dressing of overhangs, undercuts, fencing, first aid and hygiene.</p> <p>RK6. Standing orders in force at the Construction site, safety in the vicinity of machinery.</p> <p>RK7. Shot firing and safety regulations, how and where to take shelter.</p> <p>RK8. Duties of workmen/helpers.</p> <p>RK9. Working hours and work place injury compensation as per the relevant regulations.</p> <p>RK10. Construction safety procedures.</p>

	RK11. Consequences of violating safety procedures.
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The individual on the job must be able to: CS1. Write in English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site. CS2. Prepare and provide clear and simple instructions, details and sketches to co-workers. CS3. Prepare and write instructions, guidelines, sign boards, safety rules, and safety tags for use on site. CS4. Note down observations (if any). CS5. Fill in documentation or enter information in online systems under the guidance of the supervisor.
	<b>Reading Skills</b>
	The individual on the job must be able to: CS6. Read English and be able to or have the means to give simple instructions in the local language used at the site. CS7. Read and interpret sketches, drawings or instructions provided for the required work. CS8. Read instructions, guidelines, sign boards, safety rules and safety tags. CS9. Read instructions and identify exit routes during emergencies.
	<b>Oral Communication (Listening and Speaking skills)</b>
	The individual on the job must be able to: CS10. Effectively communicate with superiors, colleagues and regulators. CS11. Listen attentively and interpret communication/instructions from the supervisor and other co-workers. CS12. Convey information clearly and concisely to co-workers.
<b>B. Professional Skills</b>	<b>Decision Making</b>
	The individual on the job must be able to: PS1. Determine whether the working space is safe for working. PS2. Determine whether safety measures in place are adequate for the level of available risks and hazards. PS3. Make decisions in emergency situations.
	<b>Plan and Organise</b>
	The individual on the job should be able to: PS4. Plan work and organise required resources in coordination with team members to ensure adherence to safety standards.
	<b>Customer Centricity</b>
	The individual on the job should be able to: PS5. Focus on meeting the safety requirements of the client and wellbeing of all employees.
	<b>Problem Solving</b>
The individual on the job should be able to: PS6. Resolve any conflicts and problems related to safety, health, and wellbeing of workers. PS7. Detect problems in day to day tasks.	



	<p>PS8. Discuss possible solutions to address problems, with the supervisor.</p>
	<p><b>Analytical Thinking</b></p>
	<p>The individual on the job should be able to: PS9. Analyse and convey to the superior and carry out remedial action on any violations of safety norms.</p>
	<p><b>Critical Thinking</b></p>
	<p>The individual on the job should be able to: PS10. Identify and deal with and report violations of any safety norms which may lead to accidents.</p>

**UNIT 3** [This unit is about maintaining health and safety measures when working with Dangerous and Hazardous Materials critical in Constructions].

<b>Unit No.</b>	<b>03</b>
<b>Unit Title</b>	<b>Working with Dangerous and Hazardous Materials</b>
<b>Description</b>	This unit is about maintaining health and safety measures critical in Constructions site using dangerous and hazardous Materials
<b>Scope</b>	This unit covers the following: <ul style="list-style-type: none"> <li>Maintaining health and safety measures critical in Constructions</li> </ul>
<b>Performance Criteria (PC) with respect to the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Maintaining health and safety measures critical in Constructions</b>	To be competent, the individual must be able to: <p>PC1. Comply with occupational health and safety regulations in the industry.</p> <p>PC2. Adhere to Construction Technology and operation procedures with respect to workplace health and safety with dangerous and hazardous materials.</p> <p>PC3. Follow the correct safety steps in case of accidents, fire 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, safely and as carefully as possible to avoid endangering self or others, including members of the public and equipment.</p> <p>PC7. Perform storage and transportation of hazardous materials compliant with safety guidelines.</p> <p>PC8. Deal with misfires as per statutory requirements.</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 and maintaining safe distance.</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. Organisation-al 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 industry when dealing with dangerous and hazardous materials.</p> <p>OK2. Different types of safety requirement at the Construction.</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. Construction safety rules and regulations.</p> <p>TK2. Construction safety standards including noise levels, pollutants, etc.</p> <p>TK3. Relevant personal protective equipment.</p>

	TK4. Primary tier of Occupational Safety and Health (accident prevention, standard operating procedures, etc.), secondary tier (rescue operations, periodical medical exams and first aid provision) and tertiary tier (counselling and rehabilitation, and compensation).
<b>C. Regulatory context (Knowledge of Constructions 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 Construction and significance of fences.</p> <p>RK4. Standing orders in force at the Construction 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. Construction safety procedures.</p> <p>RK7. Consequences of violating safety procedures.</p> <p>RK8. In-House emergency preparedness/disaster management plan.</p> <p>RK9. Environmental impact of Construction.</p> <p>RK10. Sources of dust, noise and vibration and measures to minimise them.</p> <p>RK11. Hazardous material safety and security rules and regulations as prescribed by the Constructions 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. 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>Decision Making</b>
	The individual on the job must be able to: PS1. Determine and report to the superior whether the working space is safe for working. PS2. Detect problems in day to day tasks.

	<p>PS3. Discuss possible solutions to address problems, with the supervisor.</p> <p>PS4. Make decisions in emergency situations in the absence of the supervisor (as per the authority matrix defined by the organisation).</p>
	<p><b>Plan and Organise</b></p>
	<p>The individual on the job must be able to:</p> <p>PS5. Plan and organise the work order and jobs.</p> <p>PS6. Organise all process manuals so that sorting out/accessing information is easy.</p>
	<p><b>Customer Centricity</b></p>
	<p>The individual on the job should be able to:</p> <p>PS7. Focus on meeting the safety requirements of the client and wellbeing of all employees.</p>
	<p><b>Problem Solving</b></p>
	<p>The individual on the job should be able to:</p> <p>PS8. Resolve any conflicts within the team.</p>
	<p><b>Analytical Thinking</b></p>
	<p>The individual on the job should be able to:</p> <p>PS9. Analyse information and convey to the superior and carry out remedial action.</p>
	<p><b>Critical Thinking</b></p>
<p>The individual on the job should be able to:</p> <p>PS10. Identify and deal with or report violation of any safety norms which may lead to accidents.</p>	

**UNIT 4** [This unit is about safety management system adopted in Construction].

<b>Unit No.</b>	<b>04</b>
<b>Unit Title</b>	<b>Safety Management System</b>
<b>Description</b>	This unit is about safety management system adopted in Construction
<b>Scope</b>	This unit covers the following; <ul style="list-style-type: none"> <li>formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls in Construction.</li> </ul>
<b>Performance Criteria (PC) with respect to the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Managing safety risk and assuring the effectiveness of safety risk controls in Construction</b>	To be competent, the individual must be able to: <ul style="list-style-type: none"> <li>PC1. Develop and enforce occupational Safety Policy and Objectives.</li> <li>PC2. Apply Construction Safety Risk Management.</li> <li>PC3. Prepare Safety Assurance (SA) construction during operations.</li> <li>PC4. Promote Safety Culture, as a project and as a company core value.</li> <li>PC5. Demonstrate knowledge transfer to employees.</li> </ul>
<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: <ul style="list-style-type: none"> <li>OK1. Safety as an integral part of company values, demonstrating commitment daily.</li> <li>OK2. Anticipating and mitigating risks at the process level system description and task analysis, hazard identification, risk analysis, risk assessment, and risk control in construction.</li> <li>OK3. Common Safety Assurance functions include internal audits, investigations, and employee reporting systems.</li> <li>OK4. The safety management system, learn from shared experience, and develop awareness of hazards.</li> </ul>
<b>B. Technical Knowledge</b>	The individual on the job must demonstrate knowledge and understanding of: <ul style="list-style-type: none"> <li>TK1. Construction safety legal and institutional Framework.</li> <li>TK2. Construction safety standards and corporate due diligence.</li> <li>TK3. Quality Management System (QMS) aligned Health, Safety and Environmental (HSE) Management System.</li> <li>TK4. Organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls).</li> </ul>
<b>C. Regulatory context (Knowledge of Construction Safety Rules and Regulations)</b>	The individual on the job must demonstrate knowledge and understanding of: <ul style="list-style-type: none"> <li>RK1. Compliance strategy.</li> <li>RK2. Industry specific regulation and legal system.</li> <li>RK3. Codes of practice.</li> <li>RK4. Standing orders in force in the Construction.</li> <li>RK5. Construction safety procedures.</li> <li>RK6. Enforcement and consequences of violating safety procedures.</li> </ul>
<b>Skills (S)</b>	
	<b>Reading Skills</b>
	The individual on the job must be able to:

<b>A. Core Skills/ Generic Skills</b>	CS1. Read and interpret strategic management document. CS2. Read and interpret legal documents. CS3. Understand and analyse the available data about the trends in the industry safety management and culture.
	<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.
	<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>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. PS11. Make decisions in emergency situations (as per the authority matrix defined by the organisation).
	<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>Customer Centricity</b>
	The individual on the job should be able to: PS3. Meet the safety requirements of the client and wellbeing of all employees.
	<b>Problem Solving</b>
	The individual on the job should be able to: PS4. Resolve any conflicts within the team.
	<b>Analytical Thinking</b>
	The individual on the job should be able to: PS5. Analyse and convey to the superior and carry out remedial action. PS6. Use reasoning skills to identify and resolve basic problems. PS7. Detect any potential problems which could arise.
	<b>Critical Thinking</b>
The individual on the job should be able to: PS8. Identify and deal with or report violation of any safety norms which may lead to accidents. PS9. Follow instructions and work on areas of improvement identified from regulatory and enforcement bodies. PS10. Handle health and safety tasks with minimum supervision. PS11. Complete the job within the agreed timelines and quality norms.	

**UNIT 5** [This Unit is about compliance with applicable legislation].

<b>Unit No.</b>	<b>05</b>
<b>Unit Title</b>	<b>Compliance with applicable health and safety legislation</b>
<b>Description</b>	This Unit describes the skills and knowledge required to demonstrate awareness of applicable health and safety legislation.
<b>Scope</b>	This Unit covers the following: <ul style="list-style-type: none"> <li>• Compliance with applicable health and safety legislation</li> </ul>
<b>Performance Criteria (PC) with respect to the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Compliance with applicable health and safety legislation</b>	To be competent, the individual must be able to: <ul style="list-style-type: none"> <li>PC1. Demonstrate knowledge in and understanding of occupational health and safety Act, Factories Act, Environmental Management Act, The Explosives Act and other relevant legislation.</li> <li>PC2. Maintain relevant documentation required under various Legislation.</li> <li>PC3. Maintain organizational and statutory reports regarding Inspections, testing of plant and equipment and incident investigations.</li> <li>PC4. Maintain records of the maintenance, servicing and testing of emergency preparedness facilities.</li> <li>PC5. Demonstrate ability to apply relevant codes of practice.</li> </ul>
<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: <ul style="list-style-type: none"> <li>OK1. Relevant standards and procedures followed in the company.</li> <li>OK2. Different types of safety requirements on site.</li> <li>OK3. Internal processes and management systems.</li> <li>OK4. Coordination mechanisms with stakeholders/contractors.</li> </ul>
<b>B. Technical Knowledge</b>	The individual on the job must demonstrate knowledge and understanding of: <ul style="list-style-type: none"> <li>TK1. Occupational Safety and Health Auditing.</li> <li>TK2. Site inspections and incident investigations.</li> <li>TK3. Developing and implementing safe working procedures.</li> <li>TK4. Communication mechanisms with stakeholders.</li> </ul>
<b>C. Regulatory Context (Knowledge of Relevant applicable Legislation)</b>	The individual on the job must demonstrate knowledge and understanding of: <ul style="list-style-type: none"> <li>RK1. National Occupational Safety, Health and Wellness Policy.</li> <li>RK2. Organizational safety, health and wellness policy.</li> <li>RK3. Provisions of the National Council for Construction Act of 2020</li> <li>RK4. Provisions of all National Occupational Health, Safety, Wellness and Environmental Management Legislation.</li> <li>RK5. Global standards on Occupational Safety and Health Management.</li> </ul>

<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The individual on the job must be able to: CS1. Write in English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site. CS2. Prepare and provide clear and simple instructions, details and sketches to co-workers. CS3. Generate reports.
	<b>Reading Skills</b>
	The individual on the job must be able to: CS3. Read English and be able to or have the means to give simple instructions in the local language used at the site. CS4. Read and interpret sketches, drawings or instructions provided for the required work.
	<b>Oral Communication (Listening and Speaking skills)</b>
	The individual on the job must be able to: CS5. Listen attentively and interpret communication/instructions from the supervisor and other co-workers. CS6. Convey information clearly and concisely to co-workers.
<b>B. Professional Skills</b>	<b>Decision Making</b>
	The individual on the job must be able to: PS1. Determine and report to the superior aspects of the worksite which may not be in conformity with legal requirements.
	<b>Plan and Organise</b>
	The individual on the job should be able to: PS2. Plan work and organise required resources to ensure conformity with all statutory requirements.
	<b>Customer Centricity</b>
	The individual on the job should be able to: PS3. Meet the safety requirements of the client and wellbeing of all employees.
	<b>Problem Solving</b>
	The individual on the job should be able to: PS4. Apply HIRA to determine and implement control measures to ensure conformity to statutory requirements.
	<b>Analytical Thinking</b>
	The individual on the job should be able to: PS5. Analyse the effectiveness of control measures for continuous improvement. PS6. Analyse near misses so as to prevent potential accidents.
<b>Critical Thinking</b>	
The individual on the job should be able to: PS7. Identify and deal with or report violation of any safety norms which may lead to accidents.	



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

Equipment, tools and consumable materials used by the job holder include, but are not limited to:

- Hand held alcohol breathalyzer.
- Pocket size first aid kit.
- Sound level meter.
- Measuring tape.

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

Dilemmas associated with the job of Safety Specialist include: exposure flames and electrical power supply, working around and with machinery having moving parts, working in dangerous areas with likelihood of sharp or falling materials and objects, working in confined spaces and at heights with likelihood of falls, working in extreme weather such as hot and cold conditions, working in noisy, wet and dusty environments, exposure to welding fumes and odours, lifting/pulling/pushing heavy materials, long working hours, pressure from supervisors and colleagues, pressure from government regulators, etc.

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

Solutions to dilemmas include wearing protective clothing and ensuring their availability and use by other employees, exercising regularly to maintain physical fitness, exercising proper work ergonomics, participating in workplace safety sensitisation and awareness meetings/training sessions, adhering to company's safety and standard operating procedures at all times, consulting extensively within and outside one's department/team on construction safety issues, planning and prioritising work, etc.

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

Working conditions include indoor and outdoor construction sites as well as workshops and Work Places, may also work in commercial buildings or private homes, confined spaces, handling machines with moving parts, working at heights, working in conditions that may be dirty and noisy, exposure to seasonal heat and cold or adverse weather conditions, emergency call-outs, standing or squatting for long hours and lifting relatively heavy objects. In most cases, the job involves working normal hours, but in some instances, shift work and regular overtime may be required. The job also requires wearing suitable protective clothing such as works suits, ear protectors, safety visors or goggles, gloves and hardhats, safety harnesses etc.

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

### **8.1 Internal/Within the Organisation**

Parties involved/interacting with the job holder who are internal to the organization include supervisors/superiors, trainers, occupational health and safety team, other colleagues, etc.

### **8.2 External/Outside the Organisation**

Parties involved/interacting with the job holder who are external to the organization include government regulators, trainers, clients, suppliers of equipment/ tools/ consumables, fellow Safety Specialists from other companies, labour unions/ occupational health and safety associations, etc.

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

- Ability to sustain strenuous conditions such as climbing heights;
- Walk and stand for long periods of time;
- Bend, stretch, twist, or reach out;
- Lift, carry, push and pull heavy objects;
- Use fingers, hands and feet with ease to complete the assigned task (dexterity);
- Strenuous works that may cause musculoskeletal disorders;
- Etc.

## **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.SS.01		
<b>ZQF Level</b>	6	<b>Version Number</b>	01
<b>Sector</b>	Construction	<b>Date of Approval</b>	December 2023
<b>Sub Sector</b>	Real Estate and Infrastructure Construction	<b>Date of Last Review</b>	N/A
<b>Occupation</b>	Safety Specialist	<b>Date of Next Review</b>	December 2028