

NATIONAL OCCUPATIONAL STANDARD FOR PIT EMPTIER



**NOS.PE.01
FIRST EDITION**

APPROVING AUTHORITY

This National Occupational Standard (NOS) has been prepared and published under the authority of the Zambia Qualifications Authority Board on 16th May, 2024

ZAMBIA QUALIFICATIONS AUTHORITY

The Zambia Qualifications Authority (ZAQA) 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 the various sector specific National Occupational Standards Development Teams (NOSDTs).

REVISION OF NATIONAL OCCUPATIONAL STANDARDS

National Occupational Standards (NOS) shall be revised every 5 years, or whenever it is deemed necessary, by the issuance of either amendments or revised editions. It is important that users of the 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 Water NOSDT, upon which the following organisations were represented:

1. Technical Education Vocational and Entrepreneurship Training Authority (TEVETA) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Thrive Project
2. Habitat for Humanity Zambia (HHZ)
3. Living Water International (LWI)
4. Ministry of Water Development and Sanitation (MWDS)
5. National Water Supply and Sanitation Council (NWASCO) / Lusaka Water Security Initiative (LuWSI)
6. Natural Resources Development College (NRDC)
7. The Copperbelt University (CBU)
8. The University of Zambia (UNZA)
9. Water Resources Management Authority (WARMA)
10. WaterAid Zambia (WAZ)
11. Zambia Environmental Management Agency (ZEMA)

ACKNOWLEDGEMENT

The Zambia Qualifications Authority would like to acknowledge the invaluable support of the following stakeholders that participated in the development of this NOS:

1. Dr. Eng. Stephen Siwila (Copperbelt University)
2. Dr. Kawawa Eddy Banda (University of Zambia)
3. Dr. Ngosa Howard Mpamba (Ministry of Water Development and Sanitation)
4. Eng Evans Tembo (TEVETA–GIZ Thrive Project)
5. Eng. Mbeti Muzumi (Living Water International)
6. Mr Moses Mutambala (Zambia Environmental Management Agency)
7. Mr. Adamson Sakala (WaterAid Zambia)
8. Mr. Chewe Chishala (Water Resources Management Authority)
9. Mr. Davies Mwanza (Natural Resources Development College)
10. Mr. Hara Kasenga (National Water Supply and Sanitation Council / Lusaka Water Security Initiative)
11. Mr. Nkumbu Samuel Ng'ambi (Habitat for Humanity Zambia)
12. Mr. Oliver Mulenga (Natural Resources Development College)

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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 ***“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 the various sector specific National Occupational Standards Development Teams (NOSDTs) with experts composed of representation from the appropriate authorities, government departments, consumer associations, regulators, industry, academia, and non-governmental organisations, etc.

This National Occupational Standard (NOS) has been developed by the Water National Occupational Standards Development Team in accordance with the laid down procedures and guidelines of ZAQA. All users should ensure that they have the latest edition of this publication as the NOS 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 Water sector, demonstration of competence against this NOS may be required in order to run a business or practice a craft or profession.

JUSTIFICATION

A Pit Emptier collects and transports faecal sludge from on-site sanitation facilities in line with prescribed occupation safety and health standards. Pit Emptying is one of the critical trades in the provision of public health services, hence a Pit Emptier is involved in the provision of on-site sanitation emptying services for the community to avert waterborne and faecal-oral diseases, thereby enhancing hygiene. A Pit Emptier also provides services in the collection, transportation, and disposal of faecal sludge from sanitation facilities using both manual and mechanical technologies.

It is imperative, therefore, that Pit Emptiers understand processes of safe collection, transportation, and disposal of faecal sludge. Furthermore, it is important for Pit Emptiers to understand the associated risks involved in the execution of their function, and it is also important to ensure that they are up to date with the latest technology, methodologies, and developments in the industry.

The development of this National Occupational Standard will ensure relevance of the training to latest advancements in the sanitation sector, resulting in adequately and appropriately skilled Pit Emptiers.

This NOS highlights the core knowledge, skills, competences, and personal attributes that Pit Emptiers must possess to be successful in their jobs.

ACRONYMS AND ABBREVIATIONS

CS	Core Skills
K	Knowledge and Understanding
NOS	National Occupational Standard
NOSDT	National Occupational Standards Development Team
OK	Organisational Knowledge
OSHE	Occupational Safety, Health and Environment
PC	Performance Criteria
PE	Pit Emptyer
PS	Professional Skills
RPL	Recognition of Prior Learning
SOP	Standard Operating Procedure
TK	Technical Knowledge
ZAQA	Zambia Qualifications Authority
ZQF	Zambia Qualifications Framework

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: is the 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 the 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.

Elements: set out competences the incumbent should possess to carry out the day-to-day activities.

1. OVERVIEW

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

NOS Code	NOS.PE.01
Occupation	Pit Emptying
Job Title	Pit Emptier
Job Description	<p>A Pit Emptier's job is crucial for the safe management of on-site sanitation facilities, thereby maintaining public health and prevention of environmental pollution. A Pit Emptier collects faecal sludge/septage from on-site sanitation facilities and safely transports it to the storage/faecal sludge treatment facility. Pit Emptiers inspect and follow safety protocols in maintaining equipment, and they sometimes provide advice to clients on proper waste management practices.</p> <ul style="list-style-type: none"> • Scheduling of emptying jobs; • Conducting assessment of on-site sanitation facilities; • Conducting marketing of emptying services; • Reporting on emptying operations.
Job Purpose	A Pit Emptier empties and collects faecal sludge from on-site sanitation containments, such as septic tanks, pit latrines, and vaults. They are also responsible for cleaning and quality checking of the said facilities, and sensitising clients on the correct and safe usage of these facilities. Other tasks are to clean and disinfect work sites, as well as safely transporting and disposing of the faecal sludge.
ZQF Level	3 (Trade Test Level 3)
Sector	Water
Sub sectors	Water Supply and Sanitation
Other Economic Sector(s) in which the Occupation is Practiced	All Facilities with on-site sanitation systems.
Other Similar Jobs that can be Performed in the Occupation	Plumber
Minimum Educational Job Entry Qualification(s)	3 months Job-on-training/Internship or TVET Trade test
Practicing License Requirements (if any)	N/A, but should work with a company licensed to offer pit emptying services.
Training/RPL (Suggested)	3 months Job-on-training.
Minimum Job Entry Age	18 years

Prior Experience (Recommended)	Job-on-training; 3 months internship and/or TVET Trade test or certificate of competence
Performance Criteria	As described in the Units under Section 4

2. SCOPE

This NOS specifies the fundamental knowledge and understanding, skills and competences, and personal attributes that Pit Emptiers must possess to be successful in their jobs.

3. PERSONAL ATTRIBUTES (VALUES, ETHICS AND ATTITUDES)

This job requires ability to do basic-planning plan, and prioritise ability to work in a team; physique to sustain strenuous conditions; ability to handle various equipment, tools, and materials; sensitivity towards safety for self, others, and water work environment, whilst working at the site; be well versed with tasks, functions, standards, specifications, codes of practice, and safety norms applicable to pit emptying, and be able to develop or generate the standard reports required.

4. UNITS AND ELEMENTS

This National Occupational Standard is divided into 3 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 covers the skills and knowledge required by a Pit Emptier for emptying on-site sanitation systems]

Unit No.	01
Unit Title	Emptying of Pit Latrines, Septic Tanks, Stabilisation Ponds, etc.
Description	This Unit describes the skills and knowledge required by a Pit Emptier for emptying on-site sanitation systems.
Scope	This Unit covers the following: <ul style="list-style-type: none"> • Safe emptying of on-site sanitation systems, etc. • Safe handling of emptying equipment, like vacuum tankers, shovels, buckets, gulpers, etc.
Performance Criteria (PC) with respect to the Scope	
Element	Performance Criteria (PC)
Safe Emptying of On-site Sanitation Systems, etc.	To be competent, the individual must be able to: <p>PC1. Prepare all required equipment and human resource.</p> <p>PC2. Plan and establish the sequence of emptying sanitation facilities.</p> <p>PC3. Empty pit latrines, septic tanks, stabilisation ponds, and faecal sludge treatment plants correctly and safely as per instructions.</p>
Safe Handling of Emptying Equipment like Vacuum Tankers, Shovels, Buckets, Gulpers, etc.	To be competent, the individual must be able to: <p>PC4. Correctly and safely handle vacuum tankers, buckets, manual pumps for sludge scooping, shovels and similar tools, as per instruction manuals.</p> <p>PC5. Handle vacuum tankers, buckets, manual pumps for sludge scooping, shovels and similar tools, correctly and safely as per instruction manuals.</p> <p>PC6. Recommend remedial works if needed at the site.</p>
Knowledge and Understanding (K)	
A. Organisational Context (knowledge of the company/ organisation and its processes)	The individual on the job must demonstrate knowledge and understanding of: <p>OK1. Quality work and delivery standards, safety and hazards, integrity, dress code, etc.</p> <p>OK2. Risk and impact of not following correct emptying procedures or work instructions.</p>
B. Technical Knowledge	The individual on the job must demonstrate knowledge and understanding of: <p>TK1. Faecal sludge emptying procedures.</p> <p>TK2. Safety and risk minimisation procedures during emptying to avoid health hazards.</p> <p>TK3. Basic faecal sludge management terminology.</p> <p>TK4. Safety signage during emptying.</p> <p>TK5. Basic operation and maintenance (O&M) of faecal sludge collection systems.</p> <p>TK6. How to handle various emptying equipment.</p> <p>TK7. Safety and hygiene arrangements during emptying.</p>

	<p>TK8. Sludge emptying, transportation routes, and disposal sites.</p> <p>TK9. Faecal oral-transmitted diseases and their preventive measures.</p> <p>TK10. Basic plumbing and bricklaying knowledge is required.</p>
C. Regulatory Context (knowledge of rules and regulations)	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>RK1. Applicable Public Health laws and regulations.</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<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.</p> <p>CS2. Prepare and provide clear and simple instructions, details, and sketches to co-workers.</p>
	Reading Skills
	<p>The individual on the job must be able to:</p> <p>CS3. Read English and be able to, or have the means to, give simple instructions in the local language used at the site.</p> <p>CS4. Read and interpret sketches, drawings or instructions provided for the required work.</p> <p>CS5. Read and interpret various safety and general signage, safety rules and tags, etc., provided at the workplace, including directions for exit routes during emergencies.</p>
	Oral Communication (Listening and Speaking skills)
	<p>The individual on the job must be able to:</p> <p>CS6. Speak 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.</p> <p>CS7. Listen attentively and interpret communication/ instructions from the supervisor and other co-workers.</p> <p>CS8. Convey information clearly and concisely to co-workers</p>
B. Professional Skills	Decision-Making
	<p>The individual on the job must be able to:</p> <p>PS1. Plan work and organise required resources in coordination with team members and superiors.</p> <p>PS2. Assess the specific site characteristics, and adopt appropriate emptying techniques and tools required to maximise safety of the emptier, the team members, and community members.</p> <p>PS3. Determine appropriate intervention for any sanitation facility that is difficult to empty and reinstate the facility afterwards.</p>

	Plan and Organise
	<p>The individual on the job should be able to:</p> <p>PS4. Plan and organise the work schedule and human resources requirements.</p> <p>PS5. Organise safety training and plan periodic meetings with team members.</p> <p>PC6. Establish emptying schedules for each zone.</p> <p>PC7. Assess the feasibility of emptying, e.g. depending on structural stability and pit size.</p>
	Customer Centricity
	<p>The individual on the job should be able to:</p> <p>PS8. Manage relationships with customers with the intent to satisfying their job requirements.</p> <p>PS9. Satisfy customer needs to the agreed standards of work.</p> <p>PS10. Improve service delivery through customer feedback and sensitisation.</p> <p>PS11. Minimise risk of community from potential hazards by restriction of site during emptying, e.g. by use of red tape/signs.</p>
	Problem Solving
	<p>The individual on the job should be able to:</p> <p>PS12. Resolve any conflicts within the team, clients, and community.</p> <p>PS13. Rectify any systems requiring restoration to fit for purpose.</p> <p>PS14. Report any change of procedures and techniques to the supervisor.</p>
Analytical Thinking	
<p>The individual on the job should be able to:</p> <p>PS15. Analyse and convey to the superior and carry out remedial actions.</p> <p>PS16. Optimally use human and financial resources.</p> <p>PS17. Ensure correct methods of emptying for different sanitation facilities.</p> <p>PS18. Implement appropriate maintenance works identified.</p> <p>PS19. Ensure quality of service is maintained according to plan.</p> <p>PS20. Calculate daily quantities of emptied material and report materials utilised and quantification of any other solid waste materials present.</p>	
Critical Thinking	
<p>The individual on the job should be able to:</p> <p>PS21. Identify and deal with or report violation of any safety norms which may lead to accidents, e.g. slippery ground, weak structure, etc.</p>	

	<p>PS22. Evaluate and advise on the pit sizing, especially for pit latrines.</p> <p>PS23. Assess site suitability in relation to contamination of water sources in proximity.</p> <p>PS24. Evaluate materials, tools, and human resource requirements.</p> <p>PS25. Evaluate and classify the type of faecal sludge, e.g. liquid, slurry, semi-solid or solid.</p> <p>PS26. Correctly apply water to produce sludge that can be pumped.</p>
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UNIT 2 [This Unit covers the skills and knowledge required by a Pit Emptier for faecal sludge transportation and disposal]

Unit No.	02
Unit Title	Faecal Sludge Transportation and Disposal
Description	This Unit describes the skills and knowledge required by a Pit Emptier to transport and dispose faecal sludge.
Scope	This Unit covers the following: <ul style="list-style-type: none"> • Faecal sludge collection, transportation, and disposal. • Safe handling of faecal sludge transportation vehicles and vessels, like barrels to avoid hazards.
Performance Criteria (PC) with respect to the Scope	
Element	Performance Criteria (PC)
Faecal Sludge Collection, Transportation and Disposal	To be competent, the individual must be able to: <p>PC1. Establish the sequence of sludge transportation and disposal to the transfer station, treatment plant or disposal site.</p> <p>PC2. Empty the collection barrels or drums, and sludge in the designated places correctly and safely as per instruction manuals.</p> <p>PC3. Identify appropriate transfer stations or disposal areas.</p>
Safe Handling of Faecal Sludge Transportation Vehicles and Vessels, like Barrels to Avoid Hazards	To be competent, the individual must be able to: <p>PC4. Transport the collected sludge correctly and safely as per instruction manuals.</p> <p>PC5. Handle barrels during transportation to the transfer station or disposal sites as per instruction manuals.</p> <p>PC6. Select the best faecal sludge transportation routes, keeping in mind the environmental legislations.</p> <p>PC7. Follow the sludge disposal sequence as per instruction manuals.</p> <p>PC8. Understand the environmental implications of improper transportation and disposal.</p>
Knowledge and Understanding (K)	
A. Organisational Context (knowledge of the company/ organisation and its processes)	The individual on the job must demonstrate knowledge and understanding of: <p>OK1. Safety and hazards, integrity, correct clothing, etc.</p> <p>OK2. Faecal sludge transportation, transfer stations, and disposal.</p> <p>OK3. Risk and impact of not following correct transportation, disposal procedures, and work instructions.</p>
B. Technical Knowledge	The individual on the job must demonstrate knowledge and understanding of: <p>TK1. Sludge transportation and disposal procedures.</p> <p>TK2. Safety during transportation and disposal.</p> <p>TK3. Basic faecal sludge management terminology.</p> <p>TK4. Safety signage for faecal sludge management.</p> <p>TK5. Environmental legislation.</p>

	<p>TK6. Environmental and technical constraints for various transfer stations, treatment plants, and disposal sites.</p> <p>TK7. Septic tanks the emptier shall leave behind sludge not less than 25 mm in depth at the bottom of the tank for seeding purposes.</p> <p>TK8. Identification of any abnormal conditions, such as high concentration of non-biodegradable materials, oils, and grease before taking the sludge to the treatment plant, transfer station or final disposal.</p> <p>TK9. Safety and hygiene arrangements during faecal sludge disposal.</p> <p>TK10. Faecal sludge transportation routing to transfer stations, treatment plants, and disposal sites.</p> <p>TK11. Faecal oral-transmitted diseases and the preventive measures.</p>
<p>C. Regulatory Context (knowledge of rules and regulations)</p>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>RK1. Applicable Public Health laws and regulations.</p>
<p>Skills (S)</p>	
<p>A. Core Skills/ Generic Skills</p>	<p>Writing Skills</p>
	<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 or in the community where they are operating from.</p> <p>CS2. Prepare and provide clear and simple instructions, details, and sketches to co-workers.</p> <p>CS3. Prepare written reports indicating how much faecal sludge was removed, the condition of the tank or pit, any recommendations for repairs or maintenance, any recommendations for proper use and cleaning of the system.</p>
	<p>Reading Skills</p>
<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.</p> <p>CS5. Read and interpret sketches, drawings or instructions provided for the required work.</p> <p>CS6. Read and interpret various safety and general signage, safety rules and tags, etc., provided at the workplace, including directions for exit routes during emergencies.</p>	

	<p>Oral Communication (Listening and Speaking skills)</p> <p>The individual on the job must be able to:</p> <p>CS7. Speak 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.</p> <p>CS8. Listen attentively and interpret communication/ instructions from the supervisor and other co-workers.</p> <p>CS9. Convey information clearly and concisely to co-workers.</p>
<p>B. Professional Skills</p>	<p>Decision-Making</p> <p>The individual on the job must be able to:</p> <p>PS1. Decide on the transportation routes to minimise exposure to harmful organisms/toxins for community members and pit emptier.</p> <p>PS2. Select and use safe disposal methods.</p>
	<p>Plan and Organise</p> <p>The individual on the job should be able to:</p> <p>PS3. Plan and organise transportation and disposal work schedules.</p> <p>PS4. Plan and organise periodic training on transportation and disposal of faecal sludge.</p> <p>PS5. Plan and organise human and material resources required to execute quality work.</p>
	<p>Customer Centricity</p> <p>The individual on the job should be able to:</p> <p>PS6. Manage relationships with customers with intent to satisfying their needs.</p> <p>PS7. Improve service and receive customer feedback.</p> <p>PS8. Carryout out tasks within the stipulated timeframe and required job quality.</p>
	<p>Problem Solving</p> <p>The individual on the job should be able to:</p> <p>PS9. Resolve conflicts within the team, clients, community.</p> <p>PS10. Identify and implement additional measures required during transportation and disposal.</p>
	<p>Analytical Thinking</p> <p>The individual on the job should be able to:</p> <p>PS11. Analyse and convey to the superior and carry out remedial actions when necessary.</p> <p>PS12. Optimally use human and financial resources.</p> <p>PS13. Ensure quality of service is maintained according to plan.</p> <p>PS14. Identify and rectify any problems associated with the transportation and disposal of faecal Sludge.</p>

	Critical Thinking
	<p>The individual on the job should be able to:</p> <p>PS15. Identify and deal with or report violation of any safety norms which may lead to accidents, e.g. weak structures, breakdowns, leakages, defective equipment, etc.</p> <p>PS16. Evaluate materials, tools and human resource needs.</p> <p>PS17. Apply emergency measures and laid down instructions on any accidents that may occur.</p> <p>PS18. Evaluate potential problems and provide solutions to minimise disruptions in delivery of services.</p>

UNIT 3 [This Unit covers the skills and knowledge required by a Pit Emptier on health and safety for Pit Emptiers]

Unit No.	03
Unit Title	Health and Safety for Pit Emptiers
Description	This Unit describes the skills and knowledge required by a Pit Emptier to maintain health and safety for Pit Emptiers during emptying, as well during faecal sludge transportation and disposal.
Scope	This Unit covers the following: <ul style="list-style-type: none"> • Health and safety for Pit Emptiers. • Emergency procedures.
Performance Criteria (PC) with respect to the Scope	
Element	Performance Criteria (PC)
Health and Safety for Pit Emptiers	<p>To be competent, the individual must be able to:</p> <p>PC1. Train staff and enforce safety amongst the emptying team.</p> <p>PC2. Correctly wear PPE required to perform each task in accordance with workplace policy.</p> <p>PC3. Take precautions against gas hazards and infections.</p> <p>PC4. Take precautions while working near vehicular traffic.</p> <p>PC5. Use and return equipment and materials to designated storage when not in use in a safe and correct manner.</p> <p>PC6. Undertake basic safety checks before operation of all equipment and vehicles, and report all potential hazards to the supervisor.</p> <p>PC7. Dispose of the faecal sludge and any other waste safely and correctly at the transfer stations or disposal sites as per regulation.</p> <p>PC8. Recognise risks to bystanders and take action to reduce risk associated with jobs during emptying, transportation, and disposal.</p> <p>PC9. Perform work in a manner which minimises damage to the environment and reduces health hazards.</p> <p>PC10. Ensure all procedures and work instructions for controlling risks are followed closely.</p> <p>PC11. Report all accidents, incidents or problems without delay to appropriate persons and take necessary immediate action to reduce further danger.</p>
Emergency Procedures	<p>To be competent, the individual must be able to:</p> <p>PC12. Follow procedures for dealing with accidents, fires, and emergencies, including issuing instructions and directions for emergency evacuation.</p> <p>PC13. Follow emergency procedures to company standards/ workplace requirements.</p> <p>PC14. Use emergency equipment in accordance with manufacturers' specifications and workplace requirements.</p>

	<p>PC15. Carry First Aid equipment always and provide treatment appropriate to the patient's injuries in accordance with recognised First Aid techniques.</p> <p>PC16. Recover (if practical), then clean, inspect/test, refurbish and replace, then store the First Aid equipment as appropriate.</p> <p>PC17. Report details of First Aid administered in accordance with workplace procedures.</p>
Knowledge and Understanding (K)	
A. Organisational Context (knowledge of the company/ organisation and its processes)	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>OK1. Company health, safety, and environmental policies and procedures.</p> <p>OK2. Relevant national health and safety legislation.</p> <p>OK3. Personal protective equipment to be worn and how it is cared for, and the correct and safe way to use materials and equipment required for faecal sludge emptying, transportation, and disposal.</p> <p>OK4. Correct use and safe handling of materials and equipment required for faecal sludge emptying, transportation, and disposal.</p> <p>OK5. Importance of good housekeeping in the workplace.</p> <p>OK6. Safe emptying, transportation, and disposal of faecal sludge.</p> <p>OK7. Methods for minimising environmental damage during work.</p>
B. Technical Knowledge	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>TK1. Risks to health and safety, and the measures to be taken to mitigate them in the workplace.</p> <p>TK2. Workplace procedures and requirements for treatment of workplace injuries/illnesses.</p> <p>TK3. Basic emergency First Aid procedures.</p> <p>TK4. Local emergency services.</p> <p>TK5. Importance of reporting accidents, incidents, and problems, and the appropriate action to take.</p>
C. Regulatory Context (knowledge of rules and regulations)	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>RK1. Applicable Public Health laws and regulations.</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<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.</p>

	CS2. Prepare and provide clear and simple instructions, details, and sketches to co-workers.
	Reading Skills
	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, manuals or instructions provided for emptying, transportation, and disposal.
	CS5. Read and interpret various safety and general signage, safety rules and tags, etc., provided at the workplace, including directions for exit routes during emergencies.
	Oral Communication (Listening and Speaking skills)
	The individual on the job must be able to:
CS6. Speak 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.	
CS7. Listen attentively and interpret communication/ instructions from the supervisor and other co-workers.	
CS8. Convey information clearly and concisely to co-workers	
C. Professional Skills	Decision-Making
	The individual on the job must be able to:
	PS1. Assess specific site characteristics and adopt appropriate emptying techniques and tools required to maximise safety of the emptier, the team, and community members.
	PS2. Select the right First Aid kits and use them correctly.
	PS3. Select the right tools for each task and use them correctly.
	Plan and Organise
	The individual on the job should be able to:
PS4. Plan and organise the work schedule to meet deadlines and avoid unnecessary overtime work except in emergencies.	
PS5. Organise safety training and plan periodic meetings with team members.	
Customer Centricity	
The individual on the job should be able to:	
PS6. Minimise risk of community from potential hazards by restriction of sites during emptying, e.g. by use of red tape/signs.	
PS7. Follow code of conduct during emptying, transportation, and disposal.	

	Problem Solving
	<p>The individual on the job should be able to:</p> <p>PS8. Resolve any conflicts within the team, clients, community, etc.</p> <p>PS9. Rectify any equipment or tools requiring restoration to be fit for purpose;</p> <p>PS10. Report updated procedures and techniques to supervisor.</p>
	Analytical Thinking
	<p>The individual on the job should be able to:</p> <p>PS11. Analyse and convey to the superior and carry out remedial action when needed.</p> <p>PS12. Optimally use human and financial resources.</p> <p>PS13. Ensure correct methods of emptying for different sanitation facilities.</p> <p>PS14. Implement appropriate maintenance works identified.</p> <p>PS15. Ensure quality of service is maintained according to plan.</p> <p>PS16. Calculate the daily quantities of emptied material and report materials utilised.</p>
Critical Thinking	
	<p>The individual on the job should be able to:</p> <p>PS17. Identify and deal with or report violation of any safety norm which may lead to accidents, e.g. slippery ground, weak structures.</p> <p>PS18. Assess site suitability in relation to contamination of water sources in proximity.</p>

5. EQUIPMENT, TOOLS AND CONSUMABLE MATERIALS

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

Equipment: Vacuum tanker, vacuum pumps or gulpers, , mortar pan, safety tripod set, etc.

Hand Tools: Shovel, spade, barrels, drums, buckets, wheel barrows, ladder.

Measuring Instruments: Oxygen detectors or gas monitor, etc.

Consumables and General Requirements: Disinfection material, like soap and skin cream, First Aid kit, etc.

Personal Protective Equipment: Overalls, safety goggles, steel-toe capped gumboots, Heavy duty rubber gloves, hard hats, gas masks/respirators, raincoat etc.

6. DILEMMAS/CHALLENGES AND COMPLEXITIES FOR A JOBHOLDER

Dilemmas associated with the job of a Pit Emptier include:

- Limited availability of tools and resources for emptying, handling, transportation, and disposal.
- Lack of client willingness to pay for the services, etc.
- No formal training and regulation currently available for Pit Emptiers in Zambia.
- The job requires individuals that are physically and mentally fit, with uncompromised immunity and high ability to make prompt decisions, especially in cases of dangerous working environments.
- Potential accidents if working place not assessed properly, and the Pit Emptier is not thoroughly trained in doing the job, especially with respect to the 'Dos' and 'Don'ts'.
- Health hazards if the jobholder does not wear correct PPE.
- Pit emptying has to be done regularly, e.g. every 1 or 2 years for septic tanks, therefore, serious sensitisation is needed to communities/clients.
- Transportation may be limited to transfer stations depending on permits granted.
- Applicable vaccinations required for the Pit Emptiers.

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 water safety issues; planning and

prioritising work, etc. Inform the occupants of the pending tasks and note any concerns or issues; keep a record of cleaning and emptying.

7. WORKING CONDITIONS/ENVIRONMENT

Working conditions include onsite and offsite sanitation sites, as well as faecal sludge treatment plants; may also work in commercial buildings or private homes; working close to vehicular traffic; working in confined spaces; handling machines with moving parts; 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 e.g. barrels, gulpers, etc. In most cases, the job involves working normal hours, but in some instances, shift work and regular overtime may be required. There is possible exposure to gas hazards and infections. The job also requires wearing suitable protective clothing, such as works suits, ear protectors, gas masks, safety goggles, gloves, and hard hats, etc.

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

8.1 Internal – Within the Organisation

Parties involved/interacting with the jobholder who are internal to the organisation include: supervisors/superiors, trainers, occupational health and safety teams, other colleagues, etc.

8.2 External – Outside the Organisation

Parties involved/interacting with the jobholder who are external to the organisation include: government regulators, trainers, professional bodies, clients, suppliers of equipment/tools/consumables, fellow Pit Emptiers from other companies, labour unions, occupational health and safety associations, communities, etc.

9. PHYSICAL DEMANDS ON THE BODY

- Ability to sustain strenuous conditions such as climbing heights.
- Walking and standing for long periods of time.
- Bending, stretching, twisting or reaching out.
- Lifting, carrying, pushing, and pulling heavy objects.
- Using fingers, hands, and feet with ease to complete the assigned task (dexterity).
- 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 programme developers, and each Performance Criteria (PC) will be assigned marks proportional to its importance in the NOS. Curricula and programme 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 'Total Marks', 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 the 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.

NOS Code	NOS.PE.01		
ZQF Level	3 (Trade Test Level 3)	Version Number	01
Sector	Water	Date of Approval	May 2024
Sub Sector	Water Supply and Sanitation	Date of Last Review	N/A
Occupation	Pit Emptying	Date of Next Review	May 2029

*“You learn,
We Standardise”*

ZAMBIA QUALIFICATIONS AUTHORITY

Finsbury Park, Ground Floor, Kabwe Roundabout
P.O Box 51103, Lusaka, Zambia

+260 211 843 050 // +260 963 922 730
+260 956 037 185 // +260 972 559 301

info@zaqa.gov.zm
www.zaqa.gov.zm

<https://www.linkedin.com/company/zambia-qualifications-authority/>
<https://www.facebook.com/ZAQA2016/>

