



THE REPUBLIC OF UGANDA
Ministry of Education and Sports
Directorate of Industrial Training



**Assessment and Training
Package
For**

**FAECAL SLUDGE
EMPTYING OPERATOR**

Qualification Level: 3

**Occupational Cluster: ENGINEERING AND OTHER
SCIENCES (SANITATION)**

December 2024

Developed by:

**Directorate of Industrial Training
Qualifications Standards Department**

Supported by:

Ministry of Water and Environment



THE REPUBLIC OF UGANDA
Ministry of Water and Environment

DIRECTORATE OF INDUSTRIAL TRAINING

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Under BTVET Act, 2008 the functions of the Directorate of Industrial Training are:

- (a) To identify the needs of the labour market for occupational competencies that fall under the UVQF;
- (b) To regulate apprenticeship schemes;
- (c) To foster and promote entrepreneurial values and skills, as an integral part of the UVQF;
- (d) To secure adequate and sustainable financing for the efficient operations of the Directorate;
- (e) To accredit training institutions or companies as assessment centres;
- (f) To determine fees payable under the Act;
- (g) To develop, apply, expand and improve the purposeful application of Uganda Vocational Qualifications defined in the UVQF;
- (h) To assess and award Uganda Vocational Qualifications;
- (i) To promote on-the-job training in industry for apprenticeship, traineeship and indenture training and for other training such as further skills training and upgrading; and
- (j) To prescribe the procedure for the making of training schemes

Further to the above provisions, there is an established Uganda Vocational Qualifications Framework (UVQF), under part V of the BTVET Act, 2008. It is stated that:

The purpose of the UVQF is to define:

- (a) Occupational standards in the world of work;
- (b) Assessment standards;
- (c) Vocational qualifications of learners who meet the set standards of different studies;
- (d) Provide guidelines for modular training.

The UVQF shall follow principles of Competence Based Education and Training (CBET) which include:

- (a) Flexible training or learning modules;
- (b) Positive assessment and Certification;
- (c) Assessment of Prior Learning;
- (d) Recognition of formal and non-formal training;
- (e) Self-paced or individual learning and
- (f) Work place learning

For award and recognition of certificates, the BTVET Act, 2008 provides that:

- (1) The Directorate and other examination boards established under the Act shall award certificates and diplomas for Business, Technical or Vocational education and training under the UVQF;
- (2) The Certificates and Diplomas to be awarded shall be in the form prescribed by the Minister on the recommendation of the Industrial Training Council;
- (3) The Certificates and Diplomas awarded under the Act shall be recognized in the Uganda education system and by the labour market.

Under the TVET Implementation Standards 2020, the proposed new mandate of the Directorate of Industrial Training shall be restricted to promoting the highest standards in the quality and efficiency of industrial training in the country and ensuring an adequate supply of properly trained manpower at all levels in the industry and the world of work.

The functions shall include:

- a) Regulating Industrial training and trainers,
- b) Developing industrial training curricula,
- c) Harmonizing curricula and certificates of competence,
- d) Assessing industrial training,
- e) Development of occupational standards and Assessment and Training Packages (ATPs) for Trade Testing for the industry and world of work and
- f) Awarding certificates in that respect

At operational level in the Directorate, the Qualification Standards Department performs development tasks related to concepts, procedures and instruments for establishment of the UVQF in close collaboration with both public and private stakeholders in vocational training.

In particular, the Department organizes and coordinates the development of Assessment and Training Packages for use in competence-based vocational training as well as standards-based assessment and certification.

The Directorate has therefore produced this Assessment and Training Package for use in implementing Competence-Based Education and Training mechanisms.

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Word from Permanent Secretary

The Ministry of Education and Sports (MoES) in co-operation with the private sector and other stakeholders embarked on reforming Business, Technical and Vocational Education and Training (BTJET) in Uganda. The reform led to the establishment of a Uganda Vocational Qualifications Framework (UVQF) based on Competence-Based Education and Training (CBET) principles.

The foreseen advantages of CBET include improved access, equity and relevance of BTJET, reduced unit costs of training, and recognition of Prior Learning (or on-the-job-training), among others.

As the Ministry executes its obligation of ensuring quality in training standards, the public-private partnership is being strengthened to improve occupational competence of the country's workforce without gender bias.

Further to efforts to link Education and Training to the real world of work, the Ministry through the BTJET department set up the Uganda Vocational Qualifications Framework (UVQF) Secretariat in 2004 which was main-streamed into DIT in 2008 as the Qualifications Standards Department.

To achieve the set-out targets in the reform process, the Directorate embarked on the anticipated UVQF design and development piloting its instruments and mechanisms in order to effectively enhance Competence-Based Education and Training (CBET) in Uganda.

To date, the Qualifications Standards Department of DIT has produced Assessment and Training Packages (ATP) for various occupations. Each ATP contains 3 parts namely:

1. Occupational/job Profile
2. Training modules and
3. Assessment instruments Banks

The ATP can be used by any training provider and/or those who wish to present themselves for Occupational Assessment and Certification.

Herewith, the Directorate of Industrial Training presents the "Assessment & Training Package (ATP)" for training, assessment and certification of a **FAECAL SLUDGE EMPTYING OPERATOR – QUALIFICATION LEVEL 3**.

Finally, I thank all individuals, organizations and development partners who have contributed and/or participated in the development of this noble document.

Dr. Kedrace Turyagyenda
Permanent Secretary

Executive Summary

This Assessment and Training Package is a Competence-Based Education and Training (CBET) tool and consists of three major parts:

- 0.1 PART I: The “Occupational Profile” (OP) of a FAECAL SLUDGE EMPTYING OPERATOR.** This Occupational Profile which was developed by Faecal Sludge Treatment Plant Operators practicing in the world of work, mirrors the duties and tasks FAECAL SLUDGE EMPTYING OPERATORS are expected to perform in the world of work.
- 0.2 PART II: “Training Modules”** in the form of guidelines to train Faecal Sludge Treatment Plant Operator both on the job as well as in training centres (or combinations of both venues of learning). The Training Modules herein have been developed basing on the Occupational Profile and hence are directly relevant for employment.
- 0.3 PART III: “Assessment Instruments”** in the form of performance (Practical) and written (theory) test items that can and should be used to assess whether a person complies with the requirements of employment as a Faecal Sludge Treatment Plant Operator. These assessment instruments were developed jointly by job practitioners (FAECAL SLUDGE EMPTYING OPERATOR) and teachers based on the occupational profile and training modules¹.
- 0.4** While the Occupational Profile (OP) contained in PART I of this document provides the information on **WHAT a person is expected to do** competently in the world of work, the test items, -including performance criteria- of PART III qualify the **HOW and/or HOW WELL a person must do the job.**
- 0.5** The modular format of the curriculum (PART II) allows learners to acquire job specific skills and knowledge (i.e. competencies) module by module. A single module can be accomplished within a relatively short duration of time allowing flexibility for learners to move directly into an entry level job, go for further modules or advance to higher levels of training. Modular courses allow more learners to access the training system because training centres as well as companies can accommodate more students in a given period of time.
- 0.6** In addition to improved access, equity and relevance of BTVET, the UVQF will also enable people who are convinced to have acquired competencies laid down in this ATP through prior training and on-the-job experience to access assessment and certification directly; be it on the basis of a single module, a group of modules or all modules pertaining to the occupation at once. This achievement will facilitate Recognition of Prior Learning (RPL).

¹In this document, only sample test items for assessing (practical) performance and occupational knowledge (theory) are included. A larger selection of test items can be obtained from an electronic Test Item Bank at Directorate of Industrial Training

0.7 The parts of this Assessment and Training Package were sequentially developed as follows:

- i Part 1: Occupational Profile: ***December 2024***
- ii Part 2: Training Modules: ***December 2024***
- iii Part 3: Assessment Instruments (initial bank): ***December 2024***

This ATP (or parts of it) may be periodically revised to match the dynamic trends in the occupation and hence issued in different versions.

David Mubiru Luyima

Ag. Director DIT

Acknowledgement

The Qualifications Standards Department of DIT wishes to sincerely acknowledge the valuable contributions to the development of this Assessment and Training Package by the following persons, Institutions and organizations:

- Members of the DIT Industrial Training Council;
- The Director and staff of DIT;
- Ministry of Education and Sports;
- The practitioners from the world of work;
- GIZ Sanitation for Millions programme for financing the project
- Ministry of Water and environment
- Umbrella organization (MWE)
- Consultant development of a skills sanitation caretaker training curriculum.
- The facilitators involved in guiding the development panel in their activities.

Abbreviations and acronyms

| | |
|-------|--|
| A&C | Assessment & Certification |
| ATP | Assessment & Training Packages |
| BTVET | Business, Technical and Vocational Education and Training |
| CBET | Competency Based Education and Training |
| DIT | Directorate of Industrial Training |
| ITC | Industrial Training Council |
| GoU | Government of Uganda |
| GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH |
| LWA | Learning-working Assignment |
| MC | Modular Curriculum |
| MoES | Ministry of Education and Sports |
| OP | Occupational Profile |
| PEX | Practical Exercise |
| PTI | Performance (Practical) Test Item |
| QS | Qualification Standards |
| RPL | Recognition of Prior Learning |
| TIB | Test Item Bank |
| TVET | Technical, Vocational Education and Training |
| UVQ | Uganda Vocational Qualification |
| UVQF | Uganda Vocational Qualifications Framework |
| WTI | Written (Theory) Test Item |
| OSS | On-Site Sanitation |

Key definitions

| | |
|--|---|
| Assessment | Assessment is the means by which evidence is gathered and judged to decide if an individual has met the stipulated assessment standards or not. Testing is a form of formal assessment. |
| Certification | Certification is a formal procedure to issue a certificate (qualification) to an individual that has demonstrated during formal assessment that he/she is competent to perform the tasks specified in the occupational profile. |
| Competence | Integration of skills, knowledge, attitudes, attributes and expertise in doing /performing tasks in the world of work to a set standard. |
| Competency | (Occupational) competency is understood as the ability to perform tasks common to an occupation to a set standard. |
| CBET | Competence-Based Education and Training means that programs: <ol style="list-style-type: none">1. have content directly related to work2. focus is on 'doing something well'3. assessment is based upon industry work standards, and4. curricula are developed in modular form |
| Duty | A duty describes a large area of work in performance terms. A duty serves as a title for a cluster of related Tasks (see also: TASK). |
| Learning-Working Assignment (LWA) | LWAs are simulated or real job situations / assignments that are suitable for learning in a training environment (e.g. "small projects"). In a working environment, LWAs are real work situations/assignments. |
| Module | Modules are part(s) of a whole curriculum. Modules can be considered as "self-contained" partial qualifications which are described by learning outcomes or competencies and which can be assessed and certified individually. |
| Occupational Profile (OP) | <p>An Occupational Profile is an overview of the duties and tasks a job incumbent is expected to perform competently in employment.</p> <p>Occupational Profiles developed by practitioners from the world of work enhance the relevance of training and learning to the requirements of the world of work.</p> |

Occupational Profiles define WHAT a person is supposed to do in performance terms. They also contain generic information regarding related knowledge and skills, attitudes/behavior, tools, materials and equipment required to perform as well as trends/concerns in the occupation.

Occupational profiles are the reference points for developing modular curricular and assessment standards

Qualification A qualification is a formal recognition for demonstrating competence, based on formal assessment against set standards. A qualification is provided to the individual in form of a certificate specifying the nature of the competence.

Practical Exercise (PEX) PEXs are practical exercises that are suitable for learning in a training environment

Task Job TASKS represent the smallest unit of job activities with a meaningful outcome. Tasks result in goods, service, or decision. They represent an assignable unit of work and have a definite beginning and ending point. Tasks can be observed and measured. *(see also: Duty)*

1.0 ATP-PART I

Occupational Profile for FAECAL SLUDGE EMPTYING OPERATOR

- 1.1 The OCCUPATIONAL PROFILE (OP) for “Faecal Sludge Treatment Plant Operator” below defines the **Duties** and **Tasks** a competent Faecal Sludge Treatment Plant Operator is expected to perform in the world of work (on the job) in Uganda and the East African region today.
- 1.2 Since it reflects the skill requirements of work life, the Occupational Profile is the reference document for the subsequent development of training modules and assessment instruments (test items) which are directly relevant to employment in Ugandan and the East African businesses and industries.
- 1.3 To ensure that the Occupational Profile is relevant for employment in Uganda and East Africa, the DIT used the method of “occupational/job profiling.”¹
- 1.4 This approach involves the brainstorming of a panel of 8 to 12 competent job practitioners guided by trained and experienced facilitators. During a two-day workshop the panelists define the duties and tasks performed in employment, as well as the prerequisite skills, knowledge, attitudes, tools and equipment, and the future trends and concerns in the occupation/job.
- 1.5 The panelists, facilitators and coordinators who participated in developing this Occupational Profile for a Faecal Sludge Emptying Operators are listed on the following page.

Job Expert Panel

Sseguya Deogratius
National Water Sewerage
corporation-NWSC Lubigi

Mwebe sekubilwa Robert
Ministry of Works and Transport-
MWT

Semukoteka Abubaker
The Association of Uganda
Emptiers Ltd.

Waigangala Arafat
KCCA –Lead sewerage operators

Matovu Jafari Tael

Co-ordinators
Nakagiri Anne
Kyambogo University/ Consultant

Komugisha Noeline –Ag.DD/QS-
Directorate of Industrial Training

Facilitators
Yusuf Kirabira
Directorate of Industrial Training

Funded by

GIZ- Sanitation for Millions
Funded by
The Government of Uganda



THE REPUBLIC OF UGANDA

Ministry of Education and Sports

Directorate of Industrial Training

**Occupational
Profile
of a
FAECAL SLUDGE
EMPTYING OPERATOR**

**Developed by: Qualifications standards
Department**

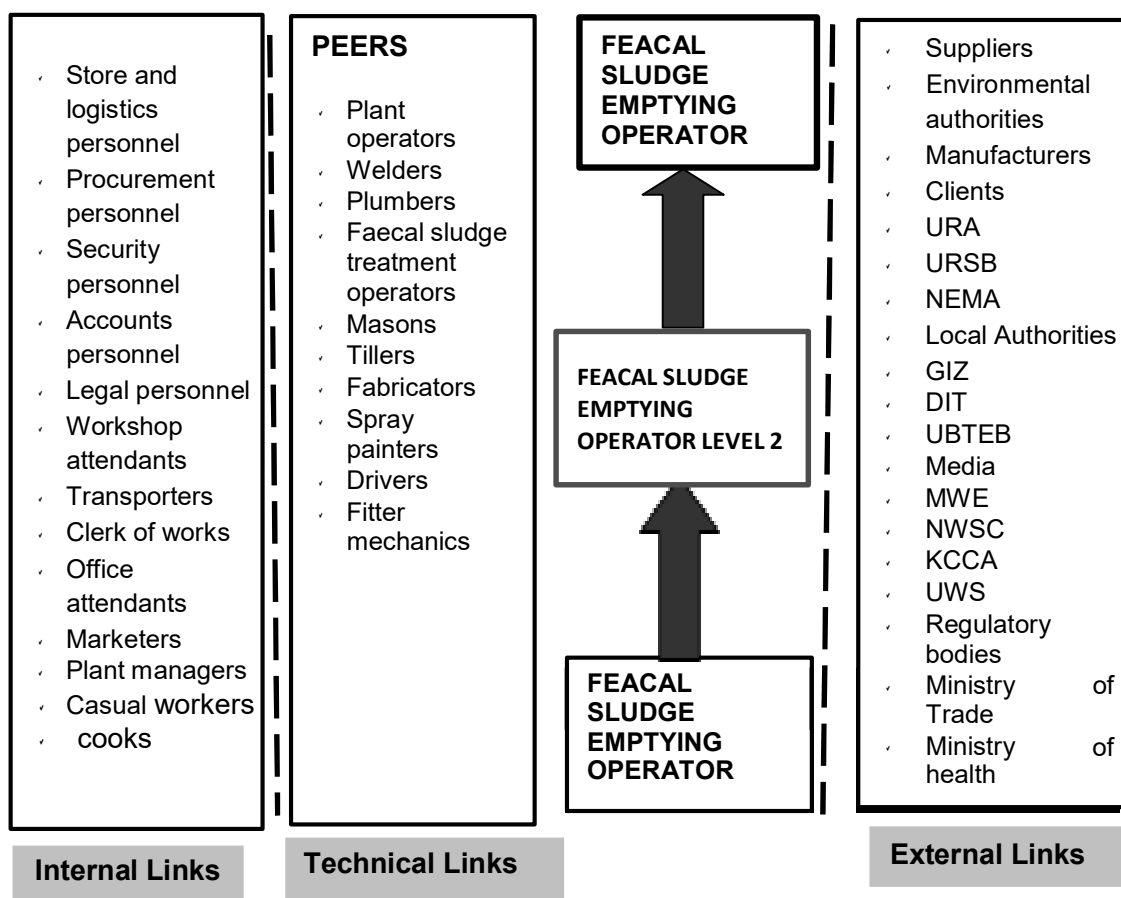
Directorate of Industrial Training

**Dates of workshop: 2nd- 4th December
2024**

NOMENCLATURE FOR THE OCCUPATION OF FAECAL SLUDGE EMPTYING OPERATOR

Definition: A **Faecal Sludge Emptying Operator (FSEO)** is a person who handles faecal sludge in the process of emptying and transporting it to designated places.

JOB ORGANISATION CHART FOR A FAECAL SLUDGE EMPTYING OPERATOR



1. **A FEACAL SLUDGE EMPTYING OPERATOR Level I** is person who manually operates pump to empty contents from containment
2. **A FEACAL SLUDGE EMPTYING OPERATOR, Level II** is a person who operates semi mechanized equipment to desludge containment.
3. **A FEACAL SLUDGE EMPTYING OPERATOR, Level III** is a person who operates mechanized equipment to desludge containment.

Duties and Tasks

| | | | |
|-------------------------------|--|-------------------------------------|-----------------------------------|
| A. PLAN EMPTYING WORKS | A1 Conduct site survey | A2 Determine distance | A3 Determine facility type |
| | A4 Determine containment capacity | A5 Mobilize resources | A6 Determine labour force |
| | A7 Determine funding source | A8 Determine emptying method | A9 Cost works |

| | | | |
|-------------------------------------|----------------------------------|--|-------------------------------|
| B. OPERATE EMPTYING FACILITY | B1 Park truck | B2 Prepare tools, equipment and materials | B3 Access containment |
| | B4 Lay hose pipes | B5 Engage suction pump | B6 Open loading valve |
| | B7 Monitor hydraulic flow | B8 check for leakages | B9 Empty faecal sludge |

| | | | |
|--------------------------------------|--|-----------------------------------|-------------------------------------|
| C. MANAGE SANITATION FACILITY | C1 Prepare tools, equipment and materials | C2 inspect drainage system | C3 Clean facility |
| | C4 Disinfect facility | C5 Repair facility | C6 Clean tools and equipment |
| | C7 Store equipment, tools and materials | C8 Re-Inspect facility | |

| | | | |
|--|-------------------------------------|-------------------------------|---------------------------------------|
| D. MAINTAIN EMPTYING FACILITY | D1 Perform regular servicing | D2 Tighten valves | D3 Check for leakages |
| | D4 Check tyre condition | D5 Check brake systems | D6 Check for lightings |
| | D7 Check fluid levels | D8 Check truck body | D9 Replace tools and equipment |

| | | | |
|--|--------------------------------------|---|---|
| E. PERFORM ADMINISTRATIVE TASKS | E1 Recruit workers | E2 Orient staff/ Workers | E3 Communicate with stakeholders |
| | E4 source suppliers | E5 Monitor works | E6 Schedule work |
| | E7 Schedule &conduct meetings | E8 Provide customer care | E9 Perform social cooperate responsibilities |
| | E10 Market business | E11 Develop worker's insurance and saving schemes. | E12 Prepare records |
| | E13 Prepare financial reports | | |

| | | | |
|---|--|--|--|
| F. PERFORM OCCUPATIONAL SAFETY, HEALTH & ENVIRONMENTAL PRACTICES | F1 Wear Protective gears | F2 Secure workplace premises | F3 Observe SOPs |
| | F4 Administer first aid | F5 Maintain personal hygiene | F6 Fumigate workplace premises |
| | F7 Manage waste | F8 Sensitize works on health issues | F9 Observe sanitation and hygiene |
| | F10 Fumigate workplace premises | F11 Demarcate workplace premises | F13 Perform fire fighting |
| | F14 Display safety signs | F15 Conduct routine inspection of works | |

Additional Information

Generic knowledge & skills

- | | |
|--|---|
| 1. Servicing of systems | 33. Record keeping |
| 2. Workshop safety | 34. Component names |
| 3. Tools, equipment and materials | 35. General inspection |
| 4. Usage of tools, equipment and materials | 36. Repair |
| 5. Emptying technologies | 37. Waste management |
| 6. Emptying methods | 38. Procurement |
| 7. Operation precautions | 39. Guidance and counselling |
| 8. Health and safety | 40. Customer care |
| 9. Plumbing | 41. Financial management |
| 10. Drainage systems | 42. Human resource management |
| 11. Different pipes | 43. Negotiation |
| 12. Usage of PPE | 44. Measurements |
| 13. Disposal of faecal sludge | 45. Basic first aid |
| 14. Engine system | 46. Basic electrical installation (incl. electrical safety, circuit assembly, earthing, connecting equipment, fault identification) |
| 15. Machine operation | 47. Basic mechanical works |
| 16. Transmission system | 48. Basic plumbing (incl. joining, laying, levelling, repairing pipes and fitting) |
| 17. ICT Knowledge | 49. Basic on-site testing of sludge |
| 18. Hydraulic system | 50. Interpersonal skills |
| 19. Cooling system | 51. Communications skills |
| 20. Pneumatic system | 52. Time management |
| 21. Suspension system | 53. Recording skills |
| 22. Lubrication | |
| 23. Customer handling | |
| 24. Assembling and disassembling vacuum pump | |
| 25. Laws and regulation | |
| 26. Worker's rights and obligation | |
| 27. Technical symbols | |
| 28. Environmental standard | |
| 29. Health and safety regulations | |
| 30. Sampling methods | |
| 31. Measuring technologies | |
| 32. Corporate policies and procedures | |

**Tools, Equipment and
Materials**

- | | | |
|-----------------------------|-------------------------|------------------------------|
| 1. Tool box set | 30. Welding machine | 59. Paint materials |
| 2. Safety boots | 31. Scaffold | 60. Timber |
| 3. Masks | 32. Jigsaw | 61. Hard core |
| 4. Overalls | 33. Hacksaw | 62. Bricks/blocks |
| 5. Gloves | 34. Cutting Blades | 63. Gravel |
| 6. Spirit level | 35. Cement | 64. Aluminium |
| 7. Water pump | 36. Aggregates | 65. Lime |
| 8. Pipe detector | 37. Steel sections | 66. Ladders |
| 9. Dumpy level | 38. Reinforcements | 67. Damp proof materials |
| 10. Grinder | 39. Water | 68. Pipe wrench |
| 11. Clamps | 40. Sand | 69. Stock and die |
| 12. Hammer | 41. PPR machine | 70. Tap |
| 13. Vice | 42. Riveting gun | 71. Power Threading machine |
| 14. Thread tape | 43. Soldering gun | 72. UPVC pipes |
| 15. Drilling machine | 44. PPR Pipes | 73. Forge |
| 16. Tape measure | 45. GI pipes | 74. Chisel |
| 17. Scriber | 46. PVC pipes | 75. Pressure testing machine |
| 18. Cutting snip | 47. HDPE pipes | 76. Shear machine |
| 19. Pick axe | 48. Copper tube bender | 77. Spanners |
| 20. Fittings | 49. Pliers | 78. Screwdrivers |
| 21. Pipe bender/tube bender | 50. Bending machine | 79. Try-square |
| 22. Screws | 51. Bolts and nuts | 80. Builder's square |
| 23. Clips | 52. Building line | 81. Gas welding equipment |
| 24. Compass | 53. Divider | 82. Gloving machine |
| 25. Set squares | 54. Sanitary appliances | 83. Galvanised iron sheets |
| 26. Trowel | 55. Hand file | 84. Copper pipes |
| 27. Reamer | 56. Wire brushes | 85. Gutters |
| 28. Butt welding machine | 57. Chipping hammer | |
| 29. High speed cutter | 58. Reservoirs | |

Attitudes / Traits / Behaviours

| | |
|-------------------------|--|
| 1. Honest | 27. Tolerant |
| 2. Transparent | 28. Diligent |
| 3. Market researcher | 29. Discipline |
| 4. Trainable | 30. Self-management |
| 5. Sympathetic | 31. Economical |
| 6. Descent | 32. Flexible |
| 7. Forecaster | 33. Innovative |
| 8. Trust worthy | 34. Organised |
| 9. Hardworking | 35. Obedient |
| 10. Committed | 36. Smart |
| 11. Good listener | 37. Willing to improve |
| 12. Physically fit | 38. Sensitive to safety, health and environmental protection |
| 13. Polite | 39. Good customer care |
| 14. Team player | 40. Result orientated |
| 15. Responsible | |
| 16. Cooperative | |
| 17. Confident | |
| 18. Creative | |
| 19. Time conscious | |
| 20. Accurate | |
| 21. Observant | |
| 22. Good decision maker | |
| 23. Integrity | |
| 24. Patience | |
| 25. Committed | |
| 26. approachable | |

Future Trends and Concerns

- | | |
|---|---|
| <ul style="list-style-type: none"> · Professionalization the jobs · Standardation of job profile · Gender balance · Profitability | <ol style="list-style-type: none"> 1. Creation of awareness for Health, Safety and environmental laws 2. Engineering software |
| <ul style="list-style-type: none"> · Establishment of more learning institutes · Incorporation of updated computer technology · Automatic fire fighting machines in the garages · Introduction of diagnostic machines · Introduction of energy efficient power sources in place of the combustible · Workshops for educating the mechanics on new technologies · Low status occupation · Assessment and certification of practitioner · Drug abuse · Technology advancement | <ol style="list-style-type: none"> 3. Capacity building workshops for continuous professional development. 4. Formation of associations 5. Placement in public service structure 6. Gender balance 7. SDGs |

2.0 ATP – PART II

Training Modules for a FAECAL SLUDGE EMPTYING OPERATOR

- 2.1 A curriculum is a “guide /plan for teaching and learning” which provides a guide to teachers, instructors and learners. In the envisaged system of competence-based or outcome-oriented education and training (CBET), Curricula are no longer the benchmark against which assessment is conducted. It is rather the Occupational Profile that provides the benchmark for Curriculum development as well as assessment.
- 2.2 This modular format of the curriculum allows learners of the Faecal Sludge Emptying Operator occupation to acquire job specific skills and knowledge (i.e. competencies) module by module. A single module can be accomplished within a relatively short duration of time allowing learners to move directly into an entry level job, do further modules and advance to higher levels of training. Modular courses allow more learners to access the training system because training centres, as well as companies can accommodate more students in a given period of time.
- 2.3 The modules were developed jointly by both instructors and job practitioners. They were developed using the Occupational Profile as a reference point and taking into account the specifications of training and learning outcomes.
- 2.4 The modules contain “Learning-Working Assignments” (LWAs) and related “Practical Exercises” (PEXs) as key elements.

LWAs are simulated or real job situations/assignments that are suitable for learning in a training environment (e.g. “small projects”). In a working environment, LWAs are real work situations.

PEXs are therefore sub-sets of a LWA.

- 2.5 In principle, and following the philosophy of Competence-Based Education and Training (CBET), the modules can be used as a guide for learning in a training Centre, at the workplace; or a combination of both.

WHO IS A FAECAL SLUDGE EMPTYING OPERATOR (LEVEL 3)?

A FAECAL SLUDGE EMPTYING OPERATOR is a person who operates mechanized equipment to desludge containment.

OVERVIEW OF MODULES FOR A FAECAL SLUDGE EMPTYING OPERATOR

| Code | Module Title | Average duration | |
|----------------------|---|------------------|----------------|
| | | Contact hours | Weeks |
| UE/FSEO/M 1.1 | Operate and maintain cesspool truck | 80 | 2 |
| UE/FSEO/M 1.2 | Empty containment | 80 | 2 |
| UE/FSEO/M 1.3 | Perform administrative and Entrepreneur tasks | 120 | 3 |
| Summary | 3Training Modules | 280 hours | 7 weeks |

Note: Average duration is contact time but NOT calendar duration

It is assumed that:

- 1 day is equivalent to 8 hours of nominal learning and
- 1 month is equivalent to 160hours of nominal learning

Information given on the average duration of training should be understood as a guideline. Quick learners may need less time than indicated or vice versa.

At completion of a module, the learner should be able to satisfactorily perform the included Learning Working Assignments, their Practical exercises and attached theoretical instructions, as the minimum exposure.

Prior to summative assessment by recognized Agencies, the users of these Modules Guides are encouraged to carefully consider continuous assessment using samples of (or similar) performance (practical) and written test items available in part 3 of this ATP for a **FAECAL SLUDGE EMPTYING OPERATOR**.

| | |
|--|---|
| Code | UE/FSEO/M1.1 |
| Module title | M1.1: OPERATE AND MAINTAIN CESSPOOL TRUCK AND CONTAINMENT |
| Related Qualification | Part of Uganda Vocational Qualification (FAECAL SLUDGE EMPTYING OPERATOR UVQ 3) |
| Qualification Level | 3 |
| Module purpose | After completion of this module, a trainee will be able to operate and maintain sanitation facilities and equipment. |
| Learning-Working Assignments (LWAs) | <p>LWA 1/1: Operate cesspool truck</p> <p>LWA 1/2: Maintain truck components</p> <p>LWA 1/3: Maintain containment</p> <p>LWA 1/4: Perform Occupational Health, Safety and Environmental protection practices.</p> <p><u>Note:</u></p> <ol style="list-style-type: none"> <i>The learning exercises may be repeated till the Trainee acquires targeted competence;</i> <i>The Trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</i> |
| Related Practical Exercises (PEXs) | <p>LWA 1/1: Operate cesspool truck</p> <p>PEX 1.1: Pack truck</p> <p>PEX 1.2: Lay hose pipes</p> <p>PEX 1.3: Connect pipes</p> <p>PEX 1.4: Insert pipes into facility</p> <p>PEX 1.5: Start Engine</p> <p>PEX 1.6: Engage PTO (Power take off)</p> |
| | <p>LWA 1/2: Maintain truck components</p> <p>PEX 2.1: Disconnect hose pipes</p> <p>PEX 2.2: Clean tools, materials and equipment</p> |

| | |
|---------------------------------------|---|
| | PEX 2.3: Remove spillages PEX2.4: Check fluid flow PEX2.5: Check for leakages PEX 2.6: Check for leakages PEX 2.7: Check tyre pressure PEX 2.8: Tighten valves PEX 2.9: Check lights PEX 2.10: Check mirror condition PEX 2.11: Check brakes |
| + | LWA1/3: Maintain Containment PEX3.1: Unblock drainage system PEX3.2: Flush drainage system PEX 3.3: Repair sanitation facility PEX3.4: Clean sanitation facility PEX 3.5: Close sanitation facility PEX3.6: Disinfect sanitation facility |
| | LWA1/4: Perform occupational health, safety and environmental protection practices PEX 4.1: Maintain personal hygiene PEX 4.2: Manage wastes PEX 4.3: Wear personal protective equipment PEX 4.4: Perform fire fighting PEX 4.5: Display safety signs PEX 4.6: Administer first aid PEX 4.7: Sensitize workers on health hazards PEX 4.8: Clean workplace PEX 4.9: Disinfect workplace PEX 4.10: Demarcate work area |
| Occupational health and safety | Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs. |

| | |
|----------------------------------|---|
| Pre-requisite modules | None |
| Related knowledge/ theory | <p><i>For Occupational theory suggested for instruction/ demonstration, the Trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> · Types of tools, equipment and materials · Communication skills · Record keeping · Mounting · Standard operation procedures · Different pipes · Customer care · Negotiation · Literacy and numeracy · ICT skills · Marketing skills · Time management · PPE usage · Maintenance · Work ethics · Waste disposal · Mechanical skills · Entrepreneurial skills · Usage of tools and equipment · Tyre and wheel specification · First aid administration · Operation precautions · Operation techniques · Rules and regulation for operation · Identification of Types of PPE · Risk management · Tightening valves · Usage of pressure and tyre gauges · Sanitations and hygiene · Faecal sludge management · Basic plumbing · Basic electrical installation |

| | |
|--|--|
| Average duration of learning | 80 hours (10 days) of nominal learning suggested to include: <ul style="list-style-type: none"> · 02 days of occupational theory and · 08 days of occupational practice |
| Suggestions on organization of learning | The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place. |
| Assessment | Assessment to be conducted according to established regulations by recognized assessment body using related Practical and Written Test Items from Item Bank |
| Minimum required tools/ equipment/ implements or equivalent | Wedges, jack, wire brush, wheel spanner, valve keys, tyre lever pipe, mallet, hoist, pressure gauge, puncture strip, Spanner sets Allen key sets, plier sets, s, hacksaws, chisel, Hammer, tyre tread gauge, air compressor, tyre cage, buckets, spades, fork hoe, rakes, brooms, hard brushes, brick towel, spirit level, square pick axe, screwdriver, tape measure, hoe, spade, panga |
| Minimum required materials and consumables or equivalent | Glue, Grease, brake fluids, anti-rust spray, , tyre glue detergents, cotton waste, saw dust, water, valves, cold punches tubeless repair kit, first aid kit, sand, cement, pipes, warning tapes, |
| Special notes | |

| | |
|--|--|
| Code | UE/FSEO/M1.2 |
| Module title | M1.2: EMPTY CONTAINMENT |
| Related Qualification | <u>Part of</u> Uganda Vocational Qualification (Faecal Sludge Emptying Operator UVQ3) |
| Qualification Level | 3 |
| Module purpose | After completion of this module, a trainee will be able to empty sanitation facility and safely dispose Faecal sludge. |
| Learning-Working Assignments (LWAs) | <p>LWA 2/1: Access sanitation facility LWA 2/2: Liquefy Faecal sludge LWA 2/3: Desludge containment LWA 2/4: Perform occupational health, safety and environmental protection practices</p> <p><u>Note:</u></p> <ol style="list-style-type: none"> <i>The learning exercises may be repeated till the Trainee acquires targeted competence;</i> <i>The Trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</i> |
| Related Practical Exercises (PEXs) | <p>LWA 2/1: Access sanitation facility PEX 2..1: Open manholes PEX 2.2: Suck containment PEX 2.3, Unblock drainage system PEX 2.4: Flush manhole PEX 2;5, Clean sanitation facility PEX 2.6 Close manhole PEX 2.7 disinfect sanitation facility PEX 2.8 Repair manhole PEX 2.9:Re inspect sanitation facility</p> |

| | |
|---------------------------------------|---|
| | <p>LWA2/3.Liquify Faecal sludge</p> <p>PEX 3.1 Mix Faecal sludge</p> <p>PEX 3.3 Fish out solid waste</p> <p>PEX 3.4 Dispose solid waste</p> <p>PEX 3.5 Clean facility</p> <p>PEX 3.6 Disinfect facility</p> |
| | <p>LWA 2/4 Desludge containment</p> <p>PEX 4.1 Start engine</p> <p>PEX 4.2 Open valves</p> <p>PEX 4.3 Close valves</p> <p>PEX 4.4 Clean site</p> <p>PEX 4.5 Disinfect site</p> <p>PEX 4.6 Dispose Faecal sludge</p> |
| | <p>LWA 2/5: Perform occupational health, safety and environmental protection practices</p> <p>PEX 5.1: Wear PPE</p> <p>PEX 5.2: Display safety signs</p> <p>PEX 5.3: Clean workplace</p> <p>PEX 5.4: Clean tools and equipment</p> <p>PEX 5.5: Store tools</p> <p>PEX 5.6: Administer first aid</p> <p>PEX 5.7: Clean sanitation facility</p> <p>PEX 5.8: Disinfect facility</p> |
| Occupational health and safety | Practices, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs. |
| Pre-requisite modules | None |
| Related knowledge/ theory | <p><i>For Occupational theory suggested for instruction/ demonstration, the Trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> Types of tools, equipment and materials |

| | |
|--|---|
| | <ul style="list-style-type: none"> ✓ Communication skills ✓ Record keeping ✓ ICT skills ✓ Environmental protection precautions in handling faecal sludge ✓ Standard operation procedures ✓ ICT skills ✓ Communication skills ✓ Usage of tools, equipment and materials (SST) ✓ Customer handling ✓ Waste disposal ✓ Record keeping ✓ Personal hygiene ✓ Administering first aid ✓ Emptying techniques ✓ Parking skills ✓ Professional ethnics ✓ Disinfectant ✓ Detergents |
| | <ul style="list-style-type: none"> ✓ Research skills ✓ Monitoring and evaluation ✓ Time management ✓ PPE usage ✓ Work ethics and etiquettes ✓ Entrepreneurial skills ✓ First aid administration ✓ Different solid waste and disposal ✓ Identification of Types of PPE ✓ Risk management ✓ Liquidifying methods ✓ Sanitations and hygiene ✓ Faecal sludge management |
| Average duration of learning | <p>80 hours (10days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> ✓ 02 days of occupational theory and ✓ 08 days of occupational practice |
| Suggestions on organization of learning | <p>The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.</p> |

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| Assessment | Assessment to be conducted according to established regulations by recognized assessment body using related Practical and Written Test Items from Item Bank |
| Minimum required tools/ equipment/ implements or equivalent | Buckets, hose pipes, tape measure, rakes, spade ,pick axe, loading stick, jerry cans, blooms, PPE, chisel, spounge, ladders, gutters, connectors, warning tapes, first aid kit ,hammer, |
| Minimum required materials and consumables or equivalent | cotton waste, water, gloves, gaggles, helmet, overall, safet shoes, oil, grease, brake fluid, thread tape, fuel, detergent, servic parts, hydraulic, solvent cement, cement, sand, bricks aggregates,hardcore, |
| Special notes | |

| | |
|--|--|
| Code | UE/FSEO/M1.3 |
| Module title | M1.3: PERFORM ADMINISTRATIVE TASKS |
| Related Qualification | <u>Part of</u> Uganda Vocational Qualification (Faecal Sludge Emptying Operator UVQ3) |
| Qualification Level | 3 |
| Module purpose | After completion of this module, a trainee will be able to start, manage and sustain emptying enterprise business. |
| Learning-Working Assignments (LWAs) | <p>LWA 3/1 Manage business finances</p> <p>LWA 3/2: perform capacity building</p> <p>LWA 3/3:Manage business</p> <p>LWA 3/4: Perform occupational health, safety and environmental protection practices.</p> <p><u>Note:</u></p> <ol style="list-style-type: none"> 1. <i>The learning exercises may be repeated till the Trainee acquires targeted competence;</i> 2. <i>The Trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</i> |
| Related Practical Exercises (PEXs) | <p>LWA 3/1: Manage business finances</p> <p>PEX 1.1: Prepare budget</p> <p>PEX 1.2: Source for funds</p> <p>PEX 1.3, prepare accountability report</p> <p>PEX 1.4: prepare financial records</p> <p>PEX 1.5: pay taxes</p> <p>PEX 1.6 Evaluate works</p> <p>PEX 1.7:Monitor daily operations</p> <p>LWA 3/2 perform capacity building</p> <p>PEX 2.1: Appraise workers</p> <p>PEX 2.2: train workers</p> <p>PEX 2.3: benchmark works</p> <p>PEX 2.4 mentor workers and trainees</p> <p>PEX 2.5 Attend technical workshops and training</p> |

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| | <p>LWA 3/3 set up enterprise</p> <p>PEX 3.1: conduct feasibility study</p> <p>PEX 3.2: develop business plan</p> <p>PEX 3.3 Develop operation plan</p> <p>PEX 3.4 Secure business premises</p> <p>PEX 3.5 Register business</p> <p>PEX 3.6 Procure inputs</p> |
| | <p>LWA 3/4 Manage human resource</p> <p>PEX 4.1 Recruit workers</p> <p>PEX 4.2 Assign work</p> <p>PEX 4.3 Prepare work schedule</p> <p>PEX 4.4 Remunerate works</p> <p>PEX 4.5 Prepare human resource records</p> <p>PEX 4.6 Supervise works</p> <p>PEX 4.7 Manage conflicts</p> <p>PEX 4.8 Motivate workers</p> <p>PEX 4.9 Manage welfare</p> <p>PEX 4.10: Prepare inventory</p> |
| | <p>LWA3/5: Market emptying enterprise</p> <p>PEX 5.1:Conduct market research</p> <p>PEX 5.2: Prepare business cards and signages</p> <p>PEX5.3: Advertise business</p> <p>PEX5.4: Offer customer care</p> <p>PEX 5.5: Source for jobs</p> <p>PEX 5.6:Manage work quality</p> |
| | <p>LWA 3/6: Perform occupational health, safety and environmental protection practices</p> <p>PEX6.1: Wear PPE</p> <p>PEX6.2: Acquire vaccination</p> <p>PEX6.3: Display safety signs</p> <p>PEX6.4: Clean workplace</p> <p>PEX 6.5: Clean tools and equipment</p> <p>PEX 6.6: Manage wastes</p> <p>PEX 6.7 Maintain personal hygiene</p> <p>PEX6.8 secure surroundings</p> <p>PEX6.9 Administer First aid</p> <p>PEX6.10 Provide sanitary facilities</p> |

| | |
|---------------------------------------|--|
| Occupational health and safety | Practices, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs. |
| Pre-requisite modules | None |
| Related knowledge/ theory | <p><i>For Occupational theory suggested for instruction/ demonstration, the Trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> ✓ Types of tools, equipment and materials ✓ Communication skills ✓ Process and procedures for business registration ✓ Resource mobilization and utilization ✓ Literacy and numeracy ✓ Basic financial management ✓ Customer handling ✓ Report writing ✓ Record keeping ✓ ICT skills ✓ Research skills ✓ Monitoring and evaluation ✓ Time management ✓ PPE usage ✓ Work ethics and etiquettes ✓ Entrepreneurial skills ✓ Marketing principles and strategies ✓ First aid administration ✓ Interpretation of parts book ✓ Identification of Types of PPE ✓ Risk management ✓ Vaccination ✓ Sanitations and hygiene ✓ Basic plumbing ✓ Basic electrical installation ✓ Decision making skills ✓ Problem solving skills ✓ Critical thinking ✓ Reflective thinking ✓ Planning and organization |

| | |
|--|--|
| | <ul style="list-style-type: none"> · Negotiation skills |
| Average duration of learning | 120 hours (15 days) of nominal learning suggested to include: <ul style="list-style-type: none"> · <i>5 days of occupational theory and</i> · <i>10days of occupational practice</i> |
| Suggestions on organization of learning | The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place. |
| Assessment | Assessment to be conducted according to established regulations by recognized assessment body using related Practical and Written Test Items from Item Bank |
| Minimum required tools/ equipment/ implements or equivalent | desks, computer, phones, fire extinguishers, first aid kit, printers, flyers, transportation means, PPE. |
| Minimum required materials and consumables or equivalent | Wire brush, Dust masks, stationery, PPEs, plastic sheets, detergent, kerosene, lighter. |
| Special notes | |

ATP- PART III

Assessment Instruments for FEACAL SLUDGE EMPTYING OPERATOR.

- 3.1** Assessment of occupational competence is the procedure by which evidence is gathered and judged to decide if an individual (candidate) has met the stipulated assessment standards.
- 3.2** Assessment of occupational competence should comprise of both practical (Performance) testing and written (theory/knowledge) testing.
- 3.3** Based on the Occupational Profile and Training Modules, a combined panel of job practitioners and Instructors developed a substantial number of test items for assessing (practical) performance as well as items for assessing occupational knowledge (theory) all stored in an electronic Test Item Bank (TIB) at the Directorate of Industrial Training.
- 3.4** Performance (Practical) Test Items (PTI) are closely related to typical work situations in Ugandan business enterprises. They comprise of a test assignment for candidates and assessment criteria and/or scoring guides for assessors' use.
- 3.5** Written Test items (WTI) for written testing of occupational theory, (knowledge) are presented in different forms which include:
- ✓ Short answer test items
 - ✓ Multiple choice test items
 - ✓ Matching test items.
- These WTIs herein focus on functional understanding as well as trouble-shooting typically synonymous with the world of work.
- 3.6** Composition of assessment/test papers will always require good choices of different types of WTI in order to ensure the assessment of relevant occupational knowledge required of candidates to exhibit competence.
- 3.7** The test items contained in the Test Item Bank may be used for continuous/formative assessment during the process of training as well as for summative assessment of candidates who have acquired their competences non-formally or informally.
- 3.8** In this document, samples of test items for assessing both performance (practical) and occupational knowledge (theory) of a **FEACAL SLUDGE EMPTYING**

OPERATORS are included. A larger selection of test items can be obtained as electronic or printed copies from designated outlets.

3.9 Overview of test item samples included:

| No. | Type of Test Item | Numbers included |
|-----|--|------------------|
| 1 | Written (Theory)- Short Answer | 3 |
| 2. | Written (Theory)- Multiple Choice | 2 |
| 3. | Written (Theory)- Matching item- (Generic) | 1 |
| 4. | Written (Theory)- Matching item- (cause effect) | 1 |
| 5. | Written (Theory)- Matching item (Work sequence) | 2 |
| 6. | Performance (Practical) Test Items | 1 |
| | Total | 10 |

WRITTEN TEST ITEMS (SAMPLES)

| DIT/ QS | Test Item Database Written (Theory) Test Item- No. 1 | | | |
|---------------------|---|---------|---------------|---------------|
| Occupational Title: | Faecal Sludge Emptying operator | | | |
| Competence level: | 3 | | | |
| Code no. | | | | |
| Test Item type: | Short answer | √ | | |
| | Multiple choice | | | |
| | Matching item | Generic | Cause- Effect | Work-sequence |
| | | | | |
| Complexity level: | C1 | | | |
| Date of OP: | December, 2024 | | | |
| Related module: | M1.1 | | | |
| Time allocation: | 3 Minutes | | | |

| | | | | |
|------------------------|---|-------------------|--|--|
| Test Item | List down any five key components of a cesspool truck | | | |
| Answer spaces | (i) | | | |
| | (ii) | | | |
| | (iii) | | | |
| | (iv) | | | |
| | (v) | | | |
| Expected key (answers) | (i) | Vacuum Pump | | |
| | (ii) | Storage tank | | |
| | (iii) | Hose pipe | | |
| | (iv) | Valves | | |
| | (v) | Hydraulic systems | | |
| | (vi) | Power turning off | | |

| DIT/ QS | Test Item Database Written (Theory) Test Item- No. 2 | | | |
|---------------------|---|---------|---------------|-------------------|
| Occupational Title: | Faecal sludge emptying operator | | | |
| Competence level: | 3 | | | |
| Code no. | | | | |
| Test Item type: | Short answer | √ | | |
| | Multiple choice | | | |
| | Matching item | Generic | Cause- Effect | Work- sequence |
| | | | | |
| Complexity level: | C1 | | | |
| Date of OP: | December,2024 | | | |
| Related module: | M1.1 | | | |
| Time allocation: | 2 Minutes | | | |

| | |
|---------------|--|
| Test Item | State any two tools used in emptying Faecal sludge containment |
| Answer spaces | (i) (ii) |

| | |
|------------------------|---|
| Expected key (answers) | (i) Hose pipe (ii) Pick axe (iii) Buckets (iv) Loading stick (v) Jerrycan |
|------------------------|---|

| DIT/ QS | Test Item Database Written (Theory) Test Item- No. 3 | | | |
|---------------------|---|---------|---------------|---------------|
| Occupational Title: | Faecal sludge emptying operator | | | |
| Competence level: | 3 | | | |
| Code no. | | | | |
| Test Item type: | Short answer | √ | | |
| | Multiple choice | | | |
| | Matching item | Generic | Cause- Effect | Work-sequence |
| | | | | |
| Complexity level: | C1 | | | |
| Date of OP: | December, 2024 | | | |
| Related module: | M1.1 | | | |
| Time allocation: | 2 Minutes | | | |

| | | | | |
|------------------------|---|-------------|--|--|
| Test Item | List three major service parts of cesspool truck engine | | | |
| Answer spaces | (i) | | | |
| | (ii) | | | |
| | (iii) | | | |
| Expected key (answers) | (i) | Oil filter | | |
| | (ii) | Fuel filter | | |
| | (iii) | Air filter | | |
| | (iv) | Spark plugs | | |

MULTIPLE CHOICE ITEMS

| DIT/ QS | Test Item Database Written (Theory) Test Item- No. 4 | | | |
|---------------------|---|---------|---------------|-------------------|
| Occupational Title: | Faecal sludge emptying operator | | | |
| Competence level: | 3 | | | |
| Code no. | | | | |
| Test Item type: | Short answer | | | |
| | Multiple choice | √ | | |
| | Matching item | Generic | Cause- Effect | Work- sequence |
| | | | | |
| Complexity level: | C1 | | | |
| Date of OP: | December, 2024 | | | |
| Related module: | M1.1 | | | |
| Time allocation: | 2 Minutes | | | |

| | |
|---------------|---|
| Test Item | Which one of the following repair techniques can be applied without dismounting the wheel? |
| Answer spaces | A. Use of Cold patch B. Use of Hot patch C. Use of rubber strings D. Use of gasket maker |

| | |
|--------------|---|
| Key (answer) | C |
|--------------|---|

| DIT/ QS | Test Item Database Written (Theory) Test Item- No. 5 | | | |
|---------------------|---|---------|---------------|---------------|
| Occupational Title: | Faecal sludge emptying operator | | | |
| Competence level: | 3 | | | |
| Code no. | | | | |
| Test Item type: | Short answer | | | |
| | Multiple choice | √ | | |
| | Matching item | Generic | Cause- Effect | Work-sequence |
| | | | | |
| Complexity level: | C2 | | | |
| Date of OP: | December, 2024 | | | |
| Related module: | M1.1 | | | |
| Time allocation: | 2 Minutes | | | |

| | |
|---------------|--|
| Test Item | Which one of the following is the purpose of maintaining a normal operational tyre pressure of the cesspool truck? |
| Answer spaces | A. Reduce noise B. Increase vibration C. Decrease traction D. Improve traction |

| | |
|--------------|---|
| Key (answer) | D |
|--------------|---|

| DIT/ QS | Test Item Database Written (Theory) Test Item- No. 7 | | | |
|---------------------|---|---------|------------------|-------------------|
| Occupational Title: | Faecal sludge emptying operator | | | |
| Competence level: | 3 | | | |
| Code no. | | | | |
| Test Item type: | Short answer | | | |
| | Multiple choice | √ | | |
| | Matching item | Generic | Cause- Effect | Work- sequence |
| | | | | |
| Complexity level: | C1 | | | |
| Date of OP: | December, 2024 | | | |
| Related module: | M1.2 | | | |
| Time allocation: | 1 Minutes | | | |

A..... is a tool used to measure a spark plug gap

| | |
|---------------|--|
| Test Item | |
| Answer spaces | A. Micrometer screw gauge B. Filler gauge C. Pressure gauge D. Tape measure |

| | |
|--------------|----------|
| Key (answer) | B |
|--------------|----------|

MATCHING TEST ITEMS

*ATP; Part :III
[Samples of test instruments]*

| DIT/ QS | Test Item Database Written (Theory) Test Item- No. 8 | | | |
|----------------------------|---|--------------|---------|---------------|
| Occupational Title: | Faecal sludge emptying operator | | | |
| Competence level | 3 | | | |
| Code no. | | | | |
| Test Item type: | Short answer | | | |
| | Multiple choice | | | |
| | Matching item | Cause-Effect | Generic | Work-sequence |
| | | | √ | |
| Complexity level: | C2 | | | |
| Date of OP: | December, 2024 | | | |
| Related module: | M1.2 | | | |
| Time allocation: | 4 Minutes | | | |

| | |
|------------------|--|
| Test item | Match the following components of cesspool truck to their uses |
|------------------|--|

| Column A (components) | | Column B (Uses) | |
|-----------------------|----------------------|-----------------|--|
| A | Vacuum pump | 1 | Connects the truck intake valve to the septic tank |
| B | Storage tank | 2 | It powers components |
| C | Hoses and hose reels | 3 | Controls the flow of waste into storage tuck |
| D | Valves and coupling | 4 | Its responsible for extracting waste |
| E | Hydraulic systems | 5 | It stores temporarily stores the extracted waste till its disposed off |

| | |
|---------------------|---------------------|
| Key (answer) | A-4, B-5, C-1, D-3, |
|---------------------|---------------------|

| DIT/ QS | Test Item Database Written (Theory) Test Item- No. 9 | | | |
|----------------------------|---|--------------|---------|---------------|
| Occupational Title: | Faecal sludge emptying operators | | | |
| Competence level | 3 | | | |
| Code no. | | | | |
| Test Item type: | Short answer | | | |
| | Multiple choice | | | |
| | Matching item | Cause-Effect | Generic | Work-sequence |
| | | ✓ | | |
| Complexity level: | C2 | | | |
| Date of OP: | December, 2024 | | | |
| Related module: | M1.1 | | | |
| Time allocation: | 4 Minutes | | | |

| | |
|------------------|---|
| Test item | Match the following cesspool faults with their causes |
|------------------|---|

| Column A (faults) | | Column B (Causes) | |
|-------------------|--------------------------------|-------------------|-----------------------|
| 1 | Oil leakage | A | Defective water pump |
| 2 | Rattling noise in transmission | B | Defective air booster |
| 3 | Engine over heating | C | Broken seals |
| 4 | Hard starting | D | Loose seat belt |
| 5 | Hard braking pedal | E | Over greasing |
| | | F | Carburetor flooding |
| | | G | Broken gear teeth |
| | | H | Tight air cleaner |

| | |
|---------------------|-------------------------|
| Key (answer) | 1-C, 2-G, 3-A, 4-F, 5-B |
|---------------------|-------------------------|

| DIT/ QS | Test Item Database Written (Theory) Test Item- no. 10 | | | |
|---------------------|--|---------|---------------|-------------------|
| Occupational Title: | Faecal sludge emptying operator | | | |
| Competence level: | 3 | | | |
| Code no. | | | | |
| Test Item type: | Short answer | | | |
| | Multiple choice | | | |
| | Matching item | Generic | Cause- Effect | Work- sequence |
| | | | | √ |
| Complexity level: | C3 | | | |
| Date of OP: | December 2024 | | | |
| Related module: | M1.1 | | | |
| Time allocation: | 4 Minutes | | | |

| | | |
|--------------------------|---|--------------------------------|
| Test item | Arrange the following procedures taken when servicing a cesspool truck engine in correct sequence | |
| Column A (chronology) | Column B (Work steps) in wrong chronology order | |
| 1 st | A | Drain engine oil |
| 2 nd | B | Warm engine |
| 3 rd | C | Fill new oil |
| 4 th | D | Park compactor on level ground |
| 5 th | E | Remove oil filter |
| 6 th | F | Check oil level |
| 7 th | G | Fit new oil filter |
| 8 th | H | Start engine |

| | |
|--------------|--|
| Key (answer) | 1.D, 2.B, 3.A, 4.F, 5.H, 6.C, 7.G, 8.I |
|--------------|--|

| DIT/ QS | Test Item Database Written (Theory) Test Item- no. 11 | | | |
|---------------------|--|---------|--------------|---------------|
| Occupational Title: | Faecal sludge emptying operator | | | |
| Competence level: | 3 | | | |
| Code no. | | | | |
| Test Item type: | Short answer | | | |
| | Multiple choice | | | |
| | Matching item | Generic | Cause-Effect | Work-sequence |
| | | | | √ |
| Complexity level: | C2 | | | |
| Date of OP: | December 2024 | | | |
| Related module: | M1.2 | | | |
| Time allocation: | 3 Minutes | | | |

| Test item | Arrange the steps taken when bleeding the fuel system | |
|--------------------------|---|--|
| Column A (chronology) | Column B (Work steps) in wrong chronology order | |
| 1 st | A | Continue priming until no bubbles are observed |
| 2 nd | B | Tighten the primer handle |
| 3 rd | C | Prime the fuel |
| 4 th | D | Fill tank with fuel |
| 5 th | E | Release the bleeding nipple |
| 6 th | F | Tighten the nipple |

| | |
|--------------|------------------------------|
| Key (answer) | 1-D, 2-C, 3-E, 4-A, 5-F, 6-B |
|--------------|------------------------------|

PERFORMANCE TEST ITEM (SAMPLE)

| DIT/ QS | Test Item Database Performance Test Item- No. 13 |
|---|---|
| Occupational Title: | Faecal sludge emptying operator |
| Competence level: | 3 |
| Code no. | |
| Test Item: | PERFORM EMPTYING OPERATIONS |
| Complexity level: | P2 |
| Date of OP: | December 2024 |
| Related modules: | M1.2 |
| Related skills and knowledge: | <ul style="list-style-type: none"> ✓ Sucking techniques ✓ Manage wastes ✓ Health and safety precautions ✓ Parking techniques ✓ ICT Skills ✓ Emptying methods ✓ Policies and regulations ✓ Health and safety policies ✓ Customer handling ✓ Basic plumbing ✓ Usage of tools, materials & equipment ✓ Septic tank emptying services ✓ Installation of hose pipes ✓ Basic masonry ✓ Ways of handling vacuum tank ✓ Wearing of personnel protective equipment |
| Required tools, Materials and Equipment: | Hammer, pick-axe, buckets, truck, pipes, tape measure, rake, broom, water, jerry can, cement, sand, brick trowel, fuel, oil, PPE, |
| Time allocation: | 4 hours |
| Preferred venue: | Sanitation facility |
| Remarks for candidates | Wear PPE |

| | |
|------------------------------|---|
| Remarks for assessors | <ul style="list-style-type: none"> · Candidates should select tools to use · An Assistant may be provided where necessary under the candidate's instruction |
|------------------------------|---|

| # | Assessment criteria | Scoring guide | Max. Score | |
|---|--------------------------|--|------------|--------|
| | | | Process | Result |
| 1 | Preparation for the task | Wore protective gear | | |
| | | <ul style="list-style-type: none"> · Overall/ over coat · Safety shoes · Gloves · Helmet · Mask · Face shields | | 4 |
| | | Cleaned work area | 2 | |
| | | Dirt free work area observed | | 2 |
| | | Selected tools and materials | 2 | |
| | | Right tools and materials observed | | 2 |
| 2 | Parking truck | Parked truck on levelled ground | 2 | |
| | | Well aligned truck observed | | 2 |
| | | Ensured brakes are applied | | 2 |
| | | Placed wheel choke for safety | 2 | |
| | | Set parking brakes | | 3 |
| 3 | Connecting hose pipe | Identified pipes | 1 | |
| | | Selected tools and materials to use | 2 | |
| | | Laid out hose pipe from truck | 2 | |
| | | Installed hose pipe to septic tank | 2 | |
| | | Checked pipes and valves for any faults or cracks | | 2 |
| | | Faults or cracks repaired if any observed | | 2 |
| | | | | |

| # | Assessment criteria | Scoring guide | Max. Score | |
|---|--------------------------|---|------------|--------|
| | | | Process | Result |
| 4 | Emptying septic tank/pit | Accessed covers over the storage | 2 | |
| | | Opened tank or pit | 2 | |
| | | Checked back flow into the tank via hose | 2 | |
| | | No back flow of Faecal observed | | 2 |
| | | Liquefied Faecal sludge | | 2 |
| | | Mixed Faecal sludge by adding water | 2 | |
| | | Engaged vacuum equipment | | 3 |
| | | Increased vacuum to proper level with valves closed by observing vacuum gauge | 2 | |
| | | Lowered the end of hose into storage and opened valve sufficiently | | 2 |
| | | Sucked Faecal sludge from pit/septic tank observed | 2 | |
| | | Closed valves periodically to re-build vacuum | | 2 |
| | | Further removal of Faecal sludge observed | 2 | |
| | | Closed tank lids/pit | 2 | |
| | | Prepared report about customer emptied OSS | 2 | |
| | | Cleaned hose pipes | 2 | |
| | | No sludge remains in hose pipes observed | | 3 |
| | | Disassembled and packed away hoses | 2 | |
| | | Cleaned up any spillages | 2 | |
| | | Disinfected site | | 2 |
| | | Informed client after completion | | 2 |
| | | | | |

| # | Assessment criteria | Scoring guide | Max. Score | |
|---|-------------------------|--|------------|--------|
| | | | Process | Result |
| 5 | Transport and disposal | Removed wheel chock and drove truck next site | 2 | |
| | | Ensured road regulations | | 2 |
| | | Positioned truck to direct FS inlet chamber | 2 | |
| | | Chocked wheels and placed parking breaks | | 2 |
| | | Opened valves and allowed FS to flow into the inlet tank | 2 | |
| | | Set vacuum pump in pressure | | 3 |
| | | Sludge pushed out tank observed | 2 | |
| | | Disconnected hose | | 2 |
| | | Cleaned tools and equipment | 2 | |
| | | Cleaned truck | | 2 |
| | | | | |
| | TOTAL | | 34 | 29 |
| | MAXIMUM SCORE(Y) | $\frac{2}{2} \times 100$ | | |

4.0 ATP- PART IV

INFORMATION ON DEVELOPMENT PROCESS

4.1 Occupational Profile Development (December 2024)

The Occupational Profile was developed in December 2024 by job practitioners who were working in the faecal sludge emptying occupation. The job expert panel, guided by Facilitators defined duties and tasks performed and provided additional generic information regarding the occupation.

4.2 Training Module Development (December 2024)

Based on the Occupational Profile for Faecal sludge emptying operator level 3 Training Modules were developed by practitioners, guided by Facilitators.

4.3 Test Item Development (December 2024)

Based on the Occupational Profile for Faecal sludge emptying operator level 3 Training Modules, Test Items were developed by combined panels of instructors and job practitioners, guided by Facilitators.

4.4 Methodology

The rationale for the Assessment and Training Package development was to link Vocational Education and Training to the real world of work by bridging Occupational Standards to Training Standards through industry-led Standards-Based Assessment.

Active participation of both instructors and job practitioners' panels consolidated the development philosophy.

The panelists worked as teams in workshop settings complemented by off-workshop field research and literature review activities including international benchmarking.

4.5 Development Panel of Occupational Profile

*ATP; Part :III
[Samples of test instruments]*

The participating panels of job practitioners required at different stages were constituted by members from the following organizations

| OCCUPATIONAL PROFILE | | |
|-----------------------------|------------------------|---|
| NO | NAME | INSTITUTION/ ORGANISATION |
| 1. | Sseguya Deogratus | National Water Sewerage Corporation- NWSC Lubigi |
| 2. | Mwebe Sekubilwa Robert | Ministry of Works and Transport |
| 3. | Semukoteka Abubaker | The Association of Uganda Emptier Ltd. |
| 4. | Waigangala Arafat | KCCA-Lead Sewage operators |
| 5. | Kirabira Yusuf | DIT |

4.6 Development Panel of TMD and TID

The participating panels of Job Practitioners required at different stages were constituted by members from the following organizations:

| TRAINING MODULES AND TEST ITEMS PANEL | | |
|--|------------------------|--|
| NO | NAME | INSTITUTION/ ORGANISATION |
| 1. | Sseguya Deogratus | National Water Sewerage Corporation-NWSC Lubigi |
| 2. | Mwebe Sekubilwa Robert | Ministry of Works and Transport |
| 3. | Semukoteka Abubaker | The Association of Uganda Emptier Ltd. |
| 4. | Waigangala Arafat | KCCA-Lead Sewage operators |
| 5. | Kirabira Yusuf | DIT |
| | | |

4.7 Facilitator team

This Assessment and Training Package was reviewed by a Facilitator team listed below:

1. **Team Leader** – Nakagiri Anne Kyambogo University/Consultant

Facilitators – Yusuf Kirabira Directorate of Industrial Training

2. **Compiled by-** Mr. Yusuf Kirabira Directorate of Industrial Training
3. **Coordinated by** –Ms Noeline Komugisha Ag. Deputy Director/QS Dept., DIT