



Standard Operating Procedures for

Improved Faecal Sludge Management Services

Kisumu County

May 2017





Glossary of Terms

CHV	Community Health Volunteer
FS	Faecal Sludge
FSM	Faecal Sludge Management
NEMA	National Environmental Management Authority
PHO	Public Health Office
PPE	Personal Protective Equipment
SoP	Standard Operating Procedures
STW	Sewage Treatment Works
WSUP	Water and Sanitation for the Urban Poor



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INTRODUCTION

Faecal sludge management (FSM) involves the collection, transport, safe treatment and disposal of the full contents of an on-site sanitation system e.g. a pit latrine, or a septic tank. To manage the contents appropriately; the sludge, the water and the solid waste within the containment system must be appropriately treated and disposed of.

In Kisumu, approximately 75% of household sanitation systems are pit latrines, yet services that exist to service these pits have previously been unregulated.

The aim of this document is to specify Standard Operating Procedures (SoPs) developed by Kisumu Public Health Office (PHO) and Water and Sanitation for the Urban Poor (WSUP) for Improved Faecal Sludge Management Services. In the current absence of policies and legislation specifically for pit latrine emptying services and faecal sludge management; these guidelines serve as an interim statement of required standards that are expected to improve and evolve over time.

By adhering to these standards, businesses may provide an approved and regulated service that minimises operator and public health risk throughout the emptying and disposal processes.

A checklist is included that aligns with these standards and enables (i) Public Health Office staff to visit a pit latrine emptying exercise, and examine whether the practices being undertaken meet these minimum operating procedures; (ii) site supervisors to ensure their own operations comply with required standards.



SERVICE CONCEPT

The overall concept presented in this document is one of ‘Improved Faecal Sludge Management’. Operators that deliver improved faecal sludge management services commit to (i) reducing health risk to operators and the surrounding community through safe management of faecal sludge and (ii) improving the experience of their customers via reliable and professional customer service.

There are 5 stages in the improved faecal sludge management for which minimum standards are outlined in this document:

- 1. Overall Operations**
- 2. Emptying**
- 3. Transport**
- 4. Disposal**
- 5. Customer Acquisition**

It is recognised that these processes will be evolving and that these operating procedures will require updates as the industry grows and further professionalises. These SoPs currently set minimum standards in place, but do not limit the growth or improvement of these practices.

Pit latrines are a temporary sanitation solution; and it is recognised that every effort should be made to upgrade these facilities to septic or sewer systems post servicing.



SECTION 1: OVERALL OPERATIONS

Overall operations details minimum requirements for business operation overall; there are four sections to these procedures:

- A) Licensing**
- B) Immunisation**
- C) Personal Protective Equipment (PPE)**
- D) Overall Equipment Required**

These pre-requisites are required to be in place before emptying, transport or disposal of faecal sludge can take place.

A) LICENSING

To operate, an improved faecal sludge operator must attain the following licences:

- (i) Business or Enterprise Licence
- (ii) NEMA Waste Transport Licence
- (iii) Hygiene and Operational Licence from Public Health Office

It is the responsibility of the business owner to ensure these licenses are in place prior to the onset of service delivery. Contact your local Public Health Officer for assistance.

Laminated copies of each license must be carried by any operating team undertaking work.

Appendix A-C details the requirements for each license.

B) EMPLOYEE HEALTH AND SAFETY

Employers must ensure that the staff they employ are fit for work.

Those directly employed in emptying of pit latrines must have vaccinations for (i) hepatitis B, (ii) cholera and (ii) typhoid. All full-time employees must also have valid health insurance.

The employer is not liable to provide the vaccines or health insurance but must make sure than employees meet these requirements.

Employees must have undertaken training on SoPs delivered by Kisumu County Public Health Office before undertaking Improved FSM Work.



C) PERSONAL PROTECTIVE EQUIPMENT

The employer is responsible for his employees having access to full PPE. Site supervisors must ensure that all team members wear PPE for the duration of the work.

PPE for each individual working in emptying a pit latrine or septic tanks must consist of:

- 1 x thick neoprene gloves
- 1 x thick latex gloves (to be worn under thick gloves)
- 1 x impermeable overalls offering full coverage of clothing
- 1 x gumboots (free from holes)
- 1 x socks
- 1 x dust mask (minimum standard) or gas mask (optimum)
- 1 x helmet

Masks and a helmet are only required for staff directly emptying a pit and are not a compulsory item for haulers.

PPE must be in a good state of repair and clean for each pit latrine emptying job. To maintain appropriate PPE:

- Overalls should be washed ideally after each job, with waste water disposed of appropriately
- Boots and gloves must be washed after each emptying task
- Dust masks must be replaced at least once per month

It is important to recognise that dirty PPE is contaminated, and thus PPE washing must take place in an area that does not risk community exposure to the overalls or the washing water. This is the responsibility of the main emptying supervisor.

D) EMPTYING EQUIPMENT REQUIRED

The following are a list of items that must be present at each pit or septic tank emptying exercise:

(i) **Improved Sludge removal equipment**
Improved sludge removal equipment is equipment that minimises the exposure of an operator to sludge during the emptying process

- Sealable chemical barrels (Figure 1)
- Improved sludge removal equipment¹
- Equipment to enter pit e.g. pick axe



Figure 1 Sample of approved sealable barrel

Samples of sludge removal equipment developed by WSUP are shown in Figure 2.



Figure 2 Improved emptying equipment

¹ Design of these is adaptable based on circumstance but must limit employee exposure to sludge

(ii) Exposure Safety Equipment

- 1 x plastic sheeting to cover working area, in particular where waste is transferred into barrels
- 5m of barrier tape for barrel holding area
- 1 x safety sign for use on vehicle, which states:
 - That faecal waste is being transported
 - Contact phone number in case of emergency/spillage
- 1 x safety signs for display during emptying (Figure 3), which states:
 - A warning to public not to enter
 - Details of the work being undertaken
- Chemicals (Lysol or OMO) in sufficient quantities for site disinfection

An example of protected a protected work site is shown in Figure 4.



Figure 3 Sample hazardous workspace signage



Figure 4 Barrier tape erected around work site

SECTION 2: EMPTYING

This section defines SOPs for the primary risk stage of the Improved Faecal Sludge Management Process – the emptying of the pit.

These guidelines are split into 3 sections:

- A) Worksite Operations**
- B) Sludge Removal**
- C) Site Departure**

A) WORKSITE OPERATIONS

It is important that the work site be a safe working space. A number of procedures need to be put in place to make this possible

(i) Preparation of workspace

Workspace should be cleared of all household items before beginning work to decrease the risk of contamination of goods that will remain onsite post emptying. Typical items to remove include washing buckets and clothes. Plastic sheeting must be placed on the ground in the workspace in key areas at risk of exposure to sludge.

(ii) No unauthorised personnel in workspace

The work space must be enclosed with barrier tape blocking pedestrian access and safety signs (discussed in section 1) displayed. No unauthorised personnel may come within 5m of the emptying operations. Children, in particular, will be curious, and it is the site supervisor's responsibility to ensure none approach the emptying team or any faecal sludge contaminated objects.

(iii) Contaminated items to be kept within workspace

All items contaminated with faecal sludge must be kept within the designated worksite unless being transported to a vehicle.

(iv) Full PPE at all times

The site supervisor is responsible to ensure that all staff are in full PPE and easily identifiable to the general public.

(v) No use of phones by staff

Hands must be washed before staffs touch phones or other personal items.



Figure 5 Workers equipped in PPE and easily identifiable



(vi) No smoking, alcohol or drug use

Under no circumstances should intoxicated staff be tolerated. Intoxicated staff, or staff under the influence of drugs, must be immediately removed from site and reprimanded as they are as a hazard to themselves and to the public. No smoking is to be tolerated on site.

(vii) No eating on worksite

Should a snack/lunch be required, staff must leave the work site, wash their hands thoroughly with soap, and eat away from the pit latrine.

(viii) Uncovered pits or tanks to be secured

Under no circumstances should an open pit be left unattended by staff. This is an extreme hazard for curious children. Barriers must be erected, and preferably the open area should be securely covered if staff needs to vacate the site.

B) SLUDGE REMOVAL

(i) No entry to the pit/tank

Under no circumstances are members of staff permitted to enter the pit or tank being emptied.

(ii) Improved tools to be used at all times

Improved pit latrine emptying tools must be used. Operators are responsible to ensure minimum exposure to faecal sludge for their employees. Guidance from WSUP and the PHO can be sought on this issue.

(iii) Sludge spillages to be cleared immediately

All sludge spillages that do not occur on plastic sheeting must be cleared immediately.

(iv) Waste to be stored in sealed barrels

Waste must be transferred to sealed barrels, free from leaks. Lids should be put on barrels immediately after filling. The external surface of the barrel should be wiped should it be contaminated by sludge spillage.

C) SITE DEPARTURE

(i) Site to be left in safe condition

It is the responsibility of the site supervisor to ensure that the latrine is repaired to a high standard if a repair has been agreed with the customer. If customer has chosen to repair their



own latrine, the pit must be sealed off or covered prior to the teams' departure to decrease the risk of children becoming injured. .

(ii) Site to be cleaned prior to departure

All surfaces must be clean and free from faecal sludge prior to team departure. Lysol or OMO must be used to disinfect the area contaminated during the emptying. All equipment (and solid waste) is to be removed from site. All water used for cleaning is to be brought to the disposal point (currently Nyalenda lagoons) for disposal.



SECTION 3: TRANSPORT

A NEMA license is required to transport faecal waste. Full details are shown in Appendix B. Some additions to these requirements are shown in this section detailing:

- A) Vehicle Requirements
- B) Transport Requirements

A) VEHICLE REQUIREMENTS

- (i) Sign to be displayed on all transport when carrying human waste**

If vehicle is rented, the nature of what is being transported must be disclosed to the driver/owner; and they must be aware that they cannot carry items for human consumption in the same vehicle.

- (ii) Vehicle not be one which is also used to transport any items for human consumption**

If vehicle is owned, the operator is responsible to ensure it carries human and solid waste only

- (iii) Transport trailer must have sides to protect barrels from tipping over**

B) TRANSPORT REQUIREMENTS

- (i) No overloading of vehicle**

To prevent long term damage of vehicle, the vehicle's carrying capacity must be used to determine how much sludge is loaded

- (ii) Plastic sheet to be used on floor of vehicle**

A plastic sheet should be used to protect the surface of the vehicle and ensure that it is easier to clean in case of spillage



(iii) All transport barrels to be sealed completely

Barrels must all be sealed to prevent waste contaminating the environment. Under no circumstances should waste be transported without a lid.

(iv) Traffic regulations to be obeyed

Driver must drive slowly and carefully, bearing in mind the hazardous nature of the goods being transported. Road regulations must be obeyed at all times.

(v) Cleaning of spillages

Spillages en roué to treatment plant to be cleaned immediately using chlorinated water.

(vi) Cleaning of vehicle

Vehicle should be cleaned in a safe space that does not risk human exposure to sludge. This must take place at a designated site.



SECTION 4: DISPOSAL

The following practices must be observed when disposing of faecal sludge and solid waste. They are grouped into

- A) Waste Disposal Practices
- B) Equipment Washing

A) WASTE DISPOSAL PRACTICES

(i) Waste must be transported to Nyalenda wastewater lagoons

All waste must be transported, and disposed of at Nyalenda wastewater lagoons. Attempts to dump waste elsewhere will lead to immediate loss of licence.

(ii) Solid waste to be removed from intake screen and deposited in burning chamber

Solid waste must be separated from the sludge at the entry point to the lagoons. Screens must be raked by a member of staff from the pit emptying team, and transferred to drying area for solids. A member of KIWASCO staff must inspect the screen to ensure it is free from solids as the job is finished and give clearance for the emptying team to depart.

B) EQUIPMENT WASHING

(i) Equipment to be washed with water which is subsequently disposed of in a safe and hygienic manner

Equipment must be washed at Nyalenda wastewater lagoons to prevent community contamination when returning equipment to storage facilities.

SECTION 5: CUSTOMER RELATIONS

Provision of a professional pit latrine emptying service requires professional service provision in terms of both equipment and customer service. The following outlines procedures and norms that should be upheld in acquiring a customer.



Figure 6 Points of interaction with a customer

A) MARKETING

It is the responsibility of the business owner to ensure that marketing to customers is transparent and presents a realistic version of the service to be offered.

All marketing agents must be trained to provide an accurate representation of the service.

Commission may be offered to marketing agents on a customer by customer basis.

Community Health Volunteers (CHVs) may be engaged in the marketing process, though permission should be sought from the central level Public Health Office before making arrangements with CHVs.

B) SITE EVALUATION

A site evaluation must be undertaken to evaluate the specific work needed at that site and to ensure that the pit/tank for emptying can be safely emptied via the processes/technology available. It is recommended to use a standard pit evaluation card or checklist to ensure safety of operators is guaranteed e.g. pit is in good structural condition, access to site is possible, sludge is of a consistency that can be emptied using available equipment etc.

Some jobs may need to be turned down based on the evaluation of the work.

C) QUOTATION PROVISION

A quotation must be provided to the customer that explains the rationale behind the charge and the bounds of the work provided e.g. where waste is to be transported, if latrine is to be fully emptied, if latrine is to be repaired post empty.

It must be explained to the customer that this price is subject to change based on what is uncovered as the latrine is emptied.

The customer should be prepared for potential extra charges due to (i) unexpectedly high volume of pit; (ii) high solid waste content; (iii) unanticipated difficulties in emptying the pit.



D) CONTRACT FOR SERVICE PROVISION

Formal quotes should be provided via a contract under which the customer acknowledges the limitations of the service provision and the fact that the service is subject to change or cancellation if unexpected issues are uncovered.

Customers must be very clear on who the service provider is, and who to contact in the case of any issues in the way in which the service has been provided.

The customer should sign and date this contract.

E) RECEIPT

Official receipts should be provided for all payments received from a customer. A copy of this receipt should be given to the customer and one should be kept and filed by the business owner in case of dispute.

Payments must be recorded in a data base to record income over time.

Flexible payment schedules can be offered at the operators' discretion.

F) CUSTOMER FOLLOW UP

It is recommended (though not compulsory) that operators follow up with customers that have been served in order to improve what they liked/did not like from the service. This feedback enables the operator to respond and improve the service over time.

Feedback should also be sought from Public Health Officials and CHVs and reacted to immediately.

The process of acquiring customers is process intensive. To ease some of this work, it is recommended that operators prepare a 'Job Card' or similar for each customer from the quotation stage. A sample job card is provided in Appendix D. WSUP Kenya is available to help with preparation of such documents.



SECTION 6: SoP MONITORING

These Standard Operating Procedures have been produced by the Public Health Office in Kisumu, in collaboration with WSUP-Kenya.

Public Health Officers or CHVs may inspect pit latrine or septic tank emptying using the checklist in Appendix E.

Breach of conduct may result in the loss of an organisation's Hygiene Licence; thus rendering their operations illegal. It is at the discretion of the Public Health Officials to decide on the course of conduct after a breach depending on the level of risk observed in the failure to comply.

A copy of the relevant training for the SoPs is shown in Appendix E.



Appendix A: NEMA License Requirements

Requirements for Application of Waste Transportation Licence

1. Copy of certificate of registration
2. Copy of a valid insurance certificate
3. Copy of vehicle inspection certificate
4. Copy of the drivers licence
5. Indicate whether the waste disposal site is licensed by NEMA or is owned by a local authority
6. Provide Authorisation to collect waste/garbage from the relevant local authority or other lead agency showing allocated areas of operation or attach a copy of contract/authority with the waste disposal site operator
7. Provide two photographs of the vehicle, front view and side/rear view showing the vehicle is appropriately labelled
8. Provide a sample of tracking documents with company logo in NEMA prescribed format
9. Put an official company stamp on the application form

Fees as of January 2017

- Application Fee – 3000 KSH
- Licensing Fee – 5000 KSH

Payable to: NEMA Revenue Account, KCB KICC Branch, Acc No: 110 229 8188



Appendix B: PHO License Requirements

Hygiene License

To obtain a Hygiene License, the following are required to be submitted to the Public Health Office:

- (i) Copy of Business/Enterprise License
- (ii) Immunisation of all staff members
- (iii) Business Profile
 - a. Name
 - b. CEO
 - c. Number of Employees
 - d. Description of Current Operations
 - e. Outline of Growth Plans in Faecal Sludge Market

Faecal Sludge Operators License

See County Finance Bill 2017/18 for details of payment and acquisition



Appendix C – Business License Requirements

The various county governments in Kenya are responsible for issuing single business permits to the various business types operating within the counties. The type of business permit to be issued depends on factors such as the geographical location of the business, the number of employees, business type, activities of the business among others.

The following are required documents to apply for a business and trade license at Kisumu City Hall:

- (i) Business Permit Application Form
- (ii) Certificate of Incorporation (x2)
- (iii) Identify Card (x2)
- (iv) Company PIN Certificate (x2)


There is a one-time application fee of 400 KSh license fees range from 1,000 KSh to 150,000 KSh depending on factors mentioned above. A business permit for a small business with less than 5 employees is typically approximately 10,000 KSh.

Fees are paid at Kenya Commercial Bank.

For more details or to apply online see:

<https://kenya.eregulations.org/procedure/213/146?l=en>

Appendix D - Job Card



GASIA POA

WASTE MANAGEMENT SERVICES

OFFICE INSIDE MANYATTA PRIMARY SCHOOL, MANYATTA A, KISUMU
TEL: 0726 801 299 E-mail: gasiapoa@yahoo.com

LIPA NA M-PESA

Till Number

907512

Job No: _____ Assessment by: _____ Date _____

1. PAYING CUSTOMER DETAILS

Name			
Household Address			
Phone Number			
Referred by			
Toilet Type	<input type="checkbox"/> Bar/Restaurant	<input type="checkbox"/> Household	<input type="checkbox"/> Institution
Number of Users			
Contact on day of emptying	Name: Phone: Status e.g. tenant, caretaker:		

2. PIT ASSESSMENT

Size	ft	No of doors:	Double/Single
Type	<input type="checkbox"/> Pit Latrine	<input type="checkbox"/> Septic Tank	
Sludge Type	<input type="checkbox"/> Thick	<input type="checkbox"/> Medium	<input type="checkbox"/> Thin
Solid Waste	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Distance to road	<input type="checkbox"/> 0-10m	<input type="checkbox"/> <50m	<input type="checkbox"/> 50m+
Last time pit was emptied	_____ Months	_____ Years	Don't know

3. SERVICE REQUESTED

SERVICE REQUIRED	No	CHARGE ESTIMATE	TOTAL CHARGE ESTIMATE						
Pit/Tank Empty			<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Quote Valid Until:</td> <td style="width: 50%;">Day: Month: Year:</td> </tr> <tr> <td style="width: 50%;">Service Requested For:</td> <td style="width: 50%;">Day: Month: Year:</td> </tr> <tr> <td></td> <td> <input type="checkbox"/> As soon as possible <input type="checkbox"/> Month End </td> </tr> </table>	Quote Valid Until:	Day: Month: Year:	Service Requested For:	Day: Month: Year:		<input type="checkbox"/> As soon as possible <input type="checkbox"/> Month End
Quote Valid Until:	Day: Month: Year:								
Service Requested For:	Day: Month: Year:								
	<input type="checkbox"/> As soon as possible <input type="checkbox"/> Month End								
Trips to Lagoon									
Break Slab									
Repair Slab									
Ceramic Pan									
Tank/Pit Repair									
Other									



GASIA POA

WASTE MANAGEMENT SERVICES

OFFICE INSIDE MANYATTA PRIMARY SCHOOL, MANYATTA A, KISUMU
 TEL: 0726 801 299 E-mail: gasiapoa@yahoo.com



Job No: _____ **Assessment by:** _____ **Date:** _____


ADDITIONAL NOTES ON JOB REQUIREMENTS e.g. caretaker phone number, specific issues in access or pit details, other services required

This document certifies that _____ has been quoted _____ KSH for services by Gasia Poa Waste Management Services. Price of the service and level of delivery may change due to events that unfold during the emptying. I acknowledge this may happen and will pay accordingly if notified.
 Signed _____ (Customer)

4. PAYMENT

DATE	AMOUNT	MPESA NO/ RECEIPT NO.	PAID BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	BALANCE REMAINING

5. SERVICE DELIVERY

Date Service Delivered	Day	Month	Year
Time Start			Time Stop
No. of barrels removed			Trips to Lagoon
Customer Rating			
Customer Feedback	What did you like? Any suggested improvements?		
How did you hear about us?			



Appendix E – Site Inspection Checklist

Inspector Name:

Date:

Business under Inspection:

Site Location:

Section 1: Overall Operations

- Operator has proof of business licence
- Operator has proof of NEMA licence to transport waste
- Operator has proof of hygiene licence from Public Health Office
- Workers that are emptying the pit can show proof of immunisation

Section 2: Customer Acquisition

- Customer confirms they are satisfied with sign-up and quotation process
- Customer confirms they received a written contract
- Customer confirms they have received receipt for payment

Section 3: Emptying

- Barriers have been erected to close off working area
- A sign is on display prohibiting access for unauthorised personnel
- Plastic sheeting is covering the ground of the operating workspace
- The workspace is free from personal items belonging to the household
- No unauthorised personnel are in the workspace
- All contaminated items are contained within the workspace
- Workers are in full PPE that is in good condition – overalls, gloves and gumboots
- Those workers directly emptying sludge are wearing masks and helmets
- No staff are using phones, smoking or have used alcohol or drugs
- Open pits have not been left unsupervised
- Upgraded tools are being used to remove sludge
- No personnel are entering the pit
- Lysol or OMO is available for site disinfection
- No sludge spillages are visible in the work site
- Waste is being moved in stored barrels
- The site is left in a good condition when staff leave to transport waste



Section 4: Transport

- Clear signage stating that waste is being transported is visible on vehicle
- Vehicle is used not used for goods for human consumption
- Trailer has high walls to prevent barrels tipping over
- Vehicle has not been overloaded
- A plastic sheet is being used to cover the floor of the vehicle
- All barrels being transported are sealed correctly
- Driver can display licence and is exhibiting good driving practices

Section 5: Disposal

- Waste is being transported to Nyalenda wastewater lagoons
- Solid waste from screen has been collected and appropriately disposed of
- Equipment is being washed in a safe location where public will not be exposed to sludge
- Equipment is stored in protected area where public will not be exposed to sludge

Improvements Required

Signed: _____
Inspector

Date:

Signed: _____
Business Owner/Site Supervisor

Date:



Appendix F – SoP Training Materials




TRAINING MANUAL


Standard Operating Procedures for Improved Pit Latrine Emptying

Kisumu County Public Health Office
WSUP - Kenya





TRAINING OUTLINE



TIMING	SESSION
09.30 – 10.00	ARRIVAL AND INTRODUCTIONS
10.00 – 10.30	INTRODUCTION TO FAECAL SLUDGE MANAGEMENT
10.30-10.45	BREAK
10.45 – 12.30	MINIMUM STANDARDS FOR IMPROVED FAECAL SLUDGE MANAGEMENT



INTRODUCTIONS



- Name
- Organisation/Area
- What are your observations of managing waste from latrines and septic tanks in Kisumu?

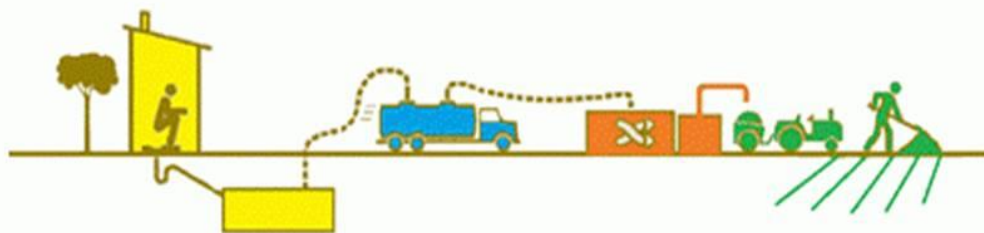
INTRODUCTON TO FAECAL SLUDGE MANAGEMENT



***Faecal Sludge** (or septage) is predominately human waste from pit latrines, septic tanks, or other onsite sanitation facilities. Sludge refers to what remains in the pit after liquids have infiltrated to the ground.*

FAECAL SLUDGE MANAGEMENT

Faecal Sludge Management is the process of collecting, transporting and treatment faecal sludge



CAPTURE

STORAGE

TRANSPORT

TREATMENT

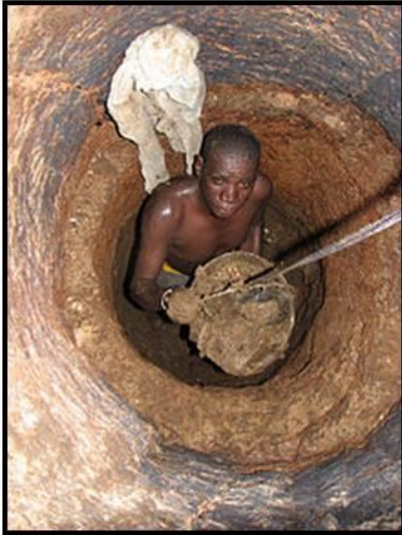
REUSE / DISPOSAL

CURRENT FAECAL SLUDGE MANAGEMENT PRACTICES

There is no an ideal system for removing faecal sludge from pits. This is due to:

- (i) Challenges in varying faecal sludge and solid waste content impacting machine design
- (ii) Difficulty in accessing many latrines with machinery/exhauster trucks
- (iii) Inability of low income consumers to pay for high quality services

THE OLD SYSTEM



Manual Emptying

What good practices do you see?

What bad practices do you see?

THE NEW SYSTEM



Improved Emptying

What good practices do you see?

What bad practices do you see?

<https://fellowsblog.ted.com/just-another-shitty-day-4f2c1391c2e>

EXISTING KISUMU PRACTICES

- What are the old existing practices in Kisumu?
 - Occurs at night time
 - Illegal operators
 - Not safe for worker or community

Strict adherence is necessary to these Operating Procedures to improve practices.

RISKS TO WORKERS FROM OLD SYSTEM

- Exposure to sludge
 - *Hands*
 - *Clothes*
 - *Shoes*
- Pit collapse
- Gas exposure
- Sharp objects in pit

Two buried after a pit latrine collapses in Limuru

By Citizen Reporter For Citizen Digital
Published on 12 May 2016



RISKS TO THE PUBLIC FROM OLD SYSTEM

- Sludge exposure
 - *Spillages*
 - *Contaminated surfaces*
 - *Contact with operator*
 - *Flies travelling from sludge to meals/homes*
- Falling into open pits



NEW SERVICE PROVISION





IMPROVING THE SERVICE



- Kisumu County Public Health Office recognise that while there is no perfect way to empty pit latrines, there is a need for the service.
- As a result, **STANDARD OPERATING PROCEDURES (SOPs)** have been developed that will regulate an improved system for pit latrine emptying decreasing the risks to the operators and the general public.
- These are a set guidelines that show minimum standards expected from service providers for legal service provision. **Operators must follow them. CHVs must inspect for them.**

STANDARD OPERATING PROCEDURES



There are 5 sections:

1. Overall Operations
2. Emptying of Waste
3. Waste Transport
4. Waste Disposal
5. Customer Relations



SECTION 1: OVERALL OPERATIONS

(a) LICENSING

The following are required licenses to operate

- Business/Enterprise Licence
- NEMA licence for waste transport
- Hygiene and Operational licence from Public Health Office (PHO)

(b) EMPLOYEE HEALTH AND SAFETY

- Employees must be immunised for typhoid, hepatitis B and cholera
- Employees must have valid health insurance
- Employees to be trained by PHO prior to undertaking emptying

SECTION 1: OVERALL OPERATIONS cont.

(c) PERSONAL PROTECTIVE EQUIPMENT

- Impermeable overalls
with full coverage
- Thick gloves
- Dust Masks
- Gumboots



FOR ALL WORKERS

SECTION 2: EMPTYING OF WASTE

(a) WORKSITE PREPARATION

- All household items removed from site
- Signs and barriers erected – no unauthorised people on site
- Plastic sheet covering potential areas of contamination
- All contaminated objects to be kept within worksite
- Full PPE worn at all times
- No use of phone by staff
- No smoking/drinking/eating/drug use
- No open pits to be left unsupervised



SECTION 2: EMPTYING OF WASTE cont.

(b) SLUDGE REMOVAL

- No entry to pit/tank
- Improved tools to be used
- Sludge spillages to be cleared immediately
- Waste to be stored in sealed barrels

(c) SITE DEPARTURE

- Site to be left in safe condition with sealed pit
- Site to be cleaned of all faecal sludge spillages
- Lysol or Omo to be used to decontaminate site pre team departure



SECTION 3: TRANSPORT

(a) VEHICLE REQUIREMENTS

- Clear signage that waste is being transported
- Vehicle not to be used for items for human consumption
- Transport trailer to have sides to prevent barrel tipping/spillage



SECTION 3: TRANSPORT cont.

(b) TRANSPORT CONDITIONS

- Driver must have correct licence
- No overloading of vehicle
- Plastic sheet to be used on floor of vehicle
- Traffic regulations to be obeyed
- Vehicle driven slowly and carefully
- Vehicle to be cleaned in area where community are not exposed to the contaminated cleaning water

SECTION 4: DISPOSAL

(a) WASTE DISPOSAL

- Waste must be transported to Nyalenda wastewater lagoons
- Solid waste must be removed from inlet screen and transferred to burning chamber



(b) EQUIPMENT WASHING

- Equipment to be washed with water which is subsequently disposed of in a safe and hygienic manner



SECTION 5: CUSTOMER RELATIONS

(a) MARKETING

- Honest and widespread marketing

(a) SITE EVALUATION

- Site evaluated to ensure safe operation

(a) QUOTATION PROVISION

- Provide written cost estimate to customer



SECTION 5: CUSTOMER RELATIONS cont.

(d) CONTRACT

- Signed contract for service provision with payment agreed

(e) RECEIPT

- Receipt issued for any financial transaction

(f) CUSTOMER FOLLOW UP

- Checks to be carried out to ensure customer is satisfied



GASIA POA
WASTE MANAGEMENT SERVICES
OFFICE: NISSE MARIYATA PRIMARY SCHOOL, MARIYATA A. KISUMU
TEL: 0732 631 239 E-mail: gasia@poa.or.ke

Job No: _____ Assessment by: _____ Date: _____

1. PAYING CUSTOMER DETAILS

Name: _____
Household Address: _____
Phone Number: _____
Referred by: _____
Tollet Type: Bar/Restaurant Household Institution
Number of Users: _____
Contact on day of emptying: Name: _____
Phone: _____
Notes e.g. tenant, caretaker

2. PIT ASSESSMENT

Size	<input type="checkbox"/> R	No of abate:	<input type="checkbox"/> Double/Single
Type	<input type="checkbox"/> Pit Latrine	<input type="checkbox"/> Septic Tank	
Sludge Type	<input type="checkbox"/> Thick <input type="checkbox"/> Medium <input type="checkbox"/> Thin		
Solid Waste	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
Distance to road	<input type="checkbox"/> < 5m <input type="checkbox"/> < 10m <input type="checkbox"/> > 10m		
Last time pit was emptied	Months _____ Years _____	Don't know	

3. SERVICE REQUESTED

SERVICE REQUESTED	No	CHARGE ESTIMATE	TOTAL CHARGE ESTIMATE
Pit/Tank Empty			
Pipes to Leagues			
Break Slab			
Repair Slab			
Concrete Fan			
Tank/Pit Repair			
Other			

Quote Valid (Days)	Days
Service Requested (Months)	Months
As soon as possible	<input type="checkbox"/>
Month End	<input type="checkbox"/>

YOUR RESPONSIBILITY

Community Health Volunteer

- ❖ Advertise improved operators to community members that need the service
- ❖ Educate emptiers in your area on improved practices
- ❖ Regulate existing illegal emptying practices according to SOPs

Operators

- ❖ Implement the improved practices for all faecal sludge empties
- ❖ Work with CHVs to promote your work

INSPECTION

The service on offer continue to appear basic; however these standards ensure that the services are offered in a safe manner.

A checklist is available for site inspection for PHOs or CHVs to inspect sites

Operators risk losing hygiene licence if guidelines are not followed

SITE INSPECTION CHECKLIST

Section 1: Overall Operations

- Operator has proof of business licence
- Operator has proof of NEMA licence to transport waste
- Operator has proof of hygiene licence from Public Health Office
- Workers that are emptying the pit can show proof of immunisation

Section 2: Customer Acquisition

- Customer confirms they are satisfied with sign-up and quotation process
- Customer confirms they received a written contract
- Customer confirms they have received receipt for payment

Section 3: Emptying

- Barriers have been erected to close off working area
- A sign is on display stating that pit emptying is in progress and prohibiting personnel

OPERATIONS VISION

- Approved and regulated service that minimises public health risk both during emptying and after disposal
- Affordable, reliable and high quality customer service





WSUP
Water & Sanitation
for the Urban Poor



PUBLIC HEALTH OFFICE - KISUMU

WSUP – KENYA