

REPUBLIC OF RWANDA



RWANDA UTILITIES REGULATORY AUTHORITY

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**REGULATION NO..... GOVERNING FAECAL SLUDGE
MANAGEMENT IN RWANDA**

PREAMBLE

THE REGULATORY BOARD;

Pursuant to Law N° 09/2013 of 01/03/2013 establishing Rwanda Utilities Regulatory Authority and determining its mission, powers, organization and functioning;

Having considered the national standards RS 110: 2022 Water quality – tolerance limits of discharged domestic wastewater;

Having reviewed the Regulations N° 005/R/SAN-EWS/RURA/2016 governing liquid waste collection and transportation;

Considering the necessity of a legal and regulatory framework to improve faecal sludge management services in Rwanda;

After consideration and adoption in its meeting of

HEREBY ADOPTS:

CHAPTER ONE: GENERAL PROVISIONS

Article One: Purpose

The purpose of this regulation is to establish a regulatory framework for faecal sludge collection, transportation and treatment for effective and efficient faecal sludge management services in Rwanda.

Article 2: Scope

This Regulation applies to the utility providing faecal sludge management services. These services specifically include:

- a) faecal sludge collection and transportation;
- b) operation of faecal sludge treatment facility.

Article 3: Definitions

For the purpose of this Regulation, the terms below have the following meaning:

Customer: Any person or institution requiring faecal sludge collection services;

Effluent: The liquid discharged from faecal sludge treatment facility as an end product of treatment process;

Faecal sludge: undigested or partially digested liquid and semi-liquid material consisting mostly of faecal solids and urine that accumulates in on-site sanitation installations, namely non-sewered public and private latrines or toilets, aqua privies and septic tanks;

Faecal sludge management: Methods and processes to manage faecal sludge through collection, transport and treatment of faecal sludge from pit latrines, septic tanks or other on-site sanitation systems;

License: a legal document issued by the Regulatory Authority, which authorizes the owner to provide faecal sludge management services as stated in the scope;

Licensee: the utility authorized by the Regulatory Authority to provide services of faecal sludge management;

Personal Protective Equipment (PPE): Equipment used to reduce the risk of contact between a person and the faecal sludge during handling and/or transport;

Pit latrine: type of on-site sanitation technology that collects human faeces and urine in a hole in ground. Urine and faeces enter the pit through the drop hole in the floor, which may be connected to the toilet seat or squatting pan for user comfort. Pit latrines consist of a hole in the ground, which may be unlined or lined with a reinforcing material a squatting slab or toilet seat and a superstructure that provides privacy;

Operator: any individual person, cooperative, company, firm or utility providing or seeking to provide faecal sludge management services;

Regulatory Authority: Rwanda Utilities Regulatory Authority;

Septic tank: A water-tight receptacle which receives the sewage from a plumbing system or part thereof, and is designed to contain and accomplish the partial removal and digestion of the suspended solid matter in the sewage through a period of detention;

Service provider: Operator licensed to provide faecal sludge management services;

Sewage: water-borne human or animal wastes, removed from residences, buildings, institutions, industrial and commercial establishments together with such ground water, surface water and storm water as may be present;

Sludge: a thick, soft, wet mud or a viscous mixture of liquid and solid waste;

Treatment: Refers to the process (es) that changes the physical, chemical and biological characteristics or composition of faecal sludge so that it is of a quality that is fit for the intended next use or disposal;

Utility: Institution, corporation or company in charge of water supply and sanitation service provision. Provision of sanitation services may include sewerage services, faecal sludge collection and transportation, owning and /or managing faecal sludge treatment facility;

Vacuum tanker or truck: A vehicle that has a pump and a tank designed to pneumatically suck liquids and slurries like faecal sludge. The vehicles are also used to transport extracted liquids.

CHAPTER II: FAECAL SLUDGE COLLECTION AND TRANSPORTATION

Article 4: Responsibility of faecal sludge collection and transportation

The Utility in charge of water and sanitation shall assume the overall responsibility of faecal sludge management. The services of faecal sludge collection and transportation as well as operation of faecal sludge treatment facilities can be provided by the utility itself or delegated to private operators.

Article 5: Contract to provide delegated services

The Utility shall have contract with private operators for the provision of delegated faecal sludge management services. The contract shall clearly indicate the roles, rights and responsibilities of each contracting party.

Article 6: Faecal sludge collection plan

The Utility shall conduct a baseline survey to know the status of faecal sludge containment facilities and establish a schedule/ plan for faecal sludge collection. This plan shall be communicated to customers as preparedness to avoid any health and environmental hazards that may result in delayed emptying of the filled facility.

Article 7: Respect of appointment schedule

The service provider has the responsibility to respect the appointment schedule for faecal sludge collection provided to customers. The service provider or its representative shall notify the customer prior to the appointed time if any emergency situation prevents him/her to keep such appointment.

Article 8: Equipment for faecal sludge collection and transportation

The service provider shall have appropriate equipment designed for collection and transportation of faecal sludge. Faecal sludge shall be collected either by manually operated mechanical equipment or motorized equipment.

Article 9: Manual collection and transportation of faecal sludge

Manual emptying involving human descending into septic tanks or pits and using buckets and shovels as well as human transportation of faecal sludge are prohibited. In areas not accessible by motorized vacuum trucks, manually operated mechanical equipment shall be used. The collected faecal sludge shall be transported using appropriate tanker trucks.

Article 10: Manually operated mechanical equipment for faecal sludge collection

Manually operated mechanical equipment used for faecal sludge collection shall be thoroughly clean and maintained in good conditions at all time. Cleaning shall only be carried out in designated washing points.

Article 11: Vehicle designed for faecal sludge collection and transportation

A vehicle designed for faecal sludge collection and transportation should:

- a) be structurally sound and leak free to avoid spillage and contamination of local environment;
- b) have sufficient volume to contain all the collected faecal sludge;
- c) have an appropriate outlet and pipe for proper discharge of faecal sludge;
- d) have a receptacle or container to effectively remove all solids and scum;
- e) have safety devices to detect leaks of liquid waste from the tank;
- f) be maintained in good mechanical conditions
- g) display the name of the service provider; and
- h) be clearly labeled to indicate that the vehicle is solely used to transport faecal sludge. The label must be waterproof and firmly stuck so that it cannot be removed.

Article 12: Inspection of the equipment used to collect and transport faecal sludge

The licensed utility shall from time to time inspect equipment and vehicles used for the collection and transportation of faecal sludge to ensure that they comply with the requirements of this regulation.

Article 13: Safe working conditions during faecal sludge collection

Faecal sludge collection service providers must ensure safe working conditions of workers, visitors and other users. For this purpose, the following must be complied with:

- a) Provide adequate work instructions and adequate training to workers;
- b) Avail protective masks, safety shoes, eye protection gadgets, gumboots, coveralls and other safety equipment for risk prevention and management;
- c) Use hazard warning signs including multilingual signs to alert the ongoing services;
- d) Provide health insurance to workers;
- e) After faecal sludge collection, workers should follow proper hygiene practices such as hand washing with soap.

Article 14: Precautions while collecting and transporting faecal sludge

While collecting and transporting faecal sludge, the service provider shall:

- a) Prevent the harbouring of flies, rodents, and other vectors;
- b) Prevent the transmission of diseases to man or animals;
- c) Prevent windblown litter so as not to be injurious to human health and the environment;
- d) Prevent the accumulation of materials in an untidy and unsafe manner so as to become a fire, health and safety hazards;
- e) Ensure that workers do not enter into pit or septic tanks;
- f) Minimise offensive odours, dust, unsightliness, and aesthetically unsightly conditions;
- g) Load and transport faecal sludge in such a manner that it is not exposed and does not leak or spill;
- h) Immediately remove any faecal sludge spillage in a sanitary manner; and
- i) Prevent water pollution by not discharging faecal sludge in storm water drainage systems or any water body.

Article 15: Workers involved in faecal sludge collection and transportation

The licensed utility or delegated operator shall have trained workers, equipped with work uniforms, safety gear and appropriate equipment and vehicle for faecal sludge collection and transportation. The operator, the drivers and disludging workers shall have adequate training in

faecal sludge collection and transportation and shall be provided with personal protective equipment to prevent any contact with faecal sludge.

Article 16: Discharge of faecal sludge in environmentally friendly manner

The collected faecal sludge must be discharged at the faecal sludge treatment facility or any other receiving facility officially designated by a competent authority. In case the service provider is not the owner of the receiving faecal sludge treatment facility, they should have a contract with the owner of the treatment facility for the discharge of the collected faecal sludge.

It is prohibited to:

- a) Dispose untreated faecal sludge in a stream, river, lake, storm water drain, road surface, on land, underground or any other body where it can cause contamination and nuisance;
- b) Discharge faecal sludge in wetlands, except after treatment in accordance with standards and regulations that govern effluent discharge;
- c) Ensure that vehicles and tanks employed for faecal are not used to transport potable water or any other liquids.

Article 17: Consumer service centre

The utility shall set up and maintain a customer service centre for the purpose of receiving and addressing customers' requests and complaints. The service centre shall operate during normal business hours to receive oral and written requests and complaints from customers.

CHAPTER III: FAECAL SLUDGE TREATMENT FACILITY

Article 18: Requirements for siting faecal sludge treatment facility

Faecal sludge treatment facility shall not be constructed where:

- a) the land is considered for agriculture, natural resources conservation service except where the facility is a “nature-based” facility;
- b) faecal sludge treatment activities have an adverse impact on the physical environment, watersheds, wetlands, wildlife habitat and ecological natural community;
- c) establishment or operation of the facility would result in nuisance conditions which would constitute a danger to the public health, safety or the environment such as noise, odors, presence of rodents, insects and vectors;
- d) traffic impacts from the facility operations would constitute a danger to the public health, safety or the environment taking into consideration traffic congestion, vehicles emissions, pedestrian and vehicular safety as well as road configurations.

It is prohibited to locate wastewater treatment systems in the following areas:

- a) Flood prone area where the groundwater level is high or in a place where the surface water flooding is possible;
- b) Site where soil has been mapped or identified as floodplain site;
- c) Area that has been delineated as a wetland.

Article 19: Safe location of faecal sludge treatment facility

Faecal sludge treatment facility shall be located where it does not constitute a nuisance to residential or commercial area, schools and other institutional buildings, principal public road and from potable water intake or otherwise at a distance designated by a competent authority.

Article 20: Operation of faecal sludge treatment facility

Faecal sludge treatment facility shall be operated solely by an authorized competent operator. The operation shall aim at fulfilling the following:

- a) Reduce, eliminate or change an undesirable characteristic of faecal sludge to make it more suitable for final disposal or further processing for the production of useful end products;
- b) Treatment and processing methods, by-products or end products shall not pose adverse impacts to the environment, public health and safety greater than those impacts that could be posed by untreated faecal sludge;
- c) The treatment of fecal sludge shall consider technologies that minimize costs of treatment and comply with environmental protection standards.

Article 21: Operation and maintenance manual

The faecal sludge treatment facility shall have an operation and maintenance manual. This manual must be consulted, reviewed and revised regularly for proper operation and maintenance of the facility.

Article 22: Content of operation and maintenance manual

Operation and Maintenance manual shall include but not limited to the following:

- a) Design flow chart and performance requirements for the treatment facility;
- b) The desludging frequency if required and the monitoring schedule of wastewater effluent discharge;
- c) A list of substances that could impair performance if introduced into the system;
- d) Handling, operation and maintenance of different equipment and machinery of the facility;
- e) Preventative and operational strategies, rules and procedures for both normal operation and emergency situations when public health and the environment are at risk;
- f) Health and Safety advices.

Article 23: Personnel at faecal sludge treatment facility

Faecal sludge treatment facility shall be operated by personnel with adequate qualification and the Utility shall ensure that the personnel receive continuous training in faecal sludge treatment, operation of different machinery and equipment, usage of chemicals as well as health and safety measures.

Article 24: Storage of faecal sludge

Faecal sludge shall not be stored in a container or at treatment facility without processing for a period of time that may result in conditions adversely affecting environment, public health and safety.

Article 25: Compliance with standards

The operator of faecal sludge treatment facility shall establish and implement a comprehensive environmental management plan to ensure compliance with environmental and social standards. For this purpose, appropriate treatment technology shall be employed and the treated sludge as well as wastewater resulting from treatment process shall comply with national standards.

Article 26: Monitoring of effluent quality

The operator of faecal treatment facility shall establish a performance monitoring program to ensure that the effluent from the treatment process comply with standards. The following shall be observed:

- a) To collect samples once every six months (6) and measure the following effluent parameters: Biological Oxygen Demand; Chemical Oxygen Demand; Total Suspended Solids, E. coli bacteria; Total Nitrogen, Total Phosphorous and heavy metals.
- b) Samples must be collected and analyzed by a recognized laboratory;
- c) Keep records of the results and present them to the Regulatory Authority whenever requested to do so.

CHAPTER IV: INSTALLATION OF SANITATION FACILITY & PAYMENT OF SERVICES

Article 27: Installation of On-site sanitation facility

The installation of an on-site sanitation facility remains the responsibility of the premise owner. The owner must install a sanitation facility that allows the service provider to easily desludge the facility once full without any infrastructure damage.

The installation of the facility must restrict entry of rain water, storm-water or any other effluent entering the facility.

Article 28: Location of on-site infrastructure within the premise

On-site sanitation infrastructure must be located in accessible areas that allow the service provider to desludge them once required.

Pit latrine must be well ventilated, clean, lined and the storage capacity must not be less than 3m³ and not too deep to facilitate desludging.

Septic tank must be watertight, securely covered and provided with means of access to its interior for desludging.

Article 29: Operation and maintenance of on-site sanitation facility

The operation and maintenance of on-site sanitation facility and all costs pertaining to it remains the responsibility of the owner of the premise. The owner shall avoid disposal of solid waste, chemicals and other products that may interfere with faecal sludge collection and treatment.

Article 30: Charges for collection and treatment of faecal sludge

Charges for emptying, transportation and treatment of faecal sludge from septic tanks and pit latrines shall be determined by the Regulatory Authority and payable by customers. The charge comprises the removal of faecal sludge, its transportation and disposal or treatment in a designated site

CHAPTER IV: LICENSING REGIME

Article 31: License for faecal sludge management

The utility in charge of water and sanitation shall have the license issued by the Regulatory Authority to provide the regulated services of faecal sludge management in its entire operation area.

Article 32: Delegated services

For delegated services the licensed utility shall sign a contract with private operators to provide those services in designated areas.

Article 33: License conditions

The utility licensed to provide faecal sludge treatment shall observe the following conditions:

- a) Operate in accordance with this Regulation and all applicable laws and standards;
- b) Provide necessary staff, material and equipment for effective service delivery;
- c) Comply with general directives issued by the Regulatory Authority during the validity period of the license;
- d) Keep record of its services in a form specified by the Regulatory Authority and submit the required reports to the Regulatory Authority as specified in article 44 of this regulation;
- e) Indemnify the public against any claims in any proceedings arising from any breach or failing on the part of the utility;
- f) Pay the regulatory fees as approved by the Regulatory Board;
- g) Comply with any other condition that the Regulatory Authority shall consider relevant for proper service delivery.

Article 34: License modification

A license modification proceeding may be initiated by the Regulatory Authority or by request of the licensed utility. The Regulatory Authority may modify a license before its expiration when it determines that a modification of the license is needed in order to respond to:

- a) Significant changes in the controlling laws or regulations, or significant court decisions that directly affect the license provisions;
- b) The inability of the license holder to comply with license provisions due to events beyond licensee's control;
- c) Changes in the ownership or organizational status, shareholding structure of the licensee.

Article 35: Suspension and revocation of license

Depending on the seriousness of the offense committed by the Licensee, the Regulatory Authority may suspend or revoke a license before the expiration of the license due to:

- a) Licensee failure to comply with license terms and conditions;
- b) Licensee abandonment of license activities;
- c) Failure of the licensee to provide the Regulatory Authority with monitoring and reporting data required by the license or failure to cooperate with the Regulatory Authority's audits and inspections;
- d) Licensee submittal of false or deliberately misleading data or information to the Regulatory Authority in response to the Regulatory Authority request or in response to the Regulatory Authority monitoring reporting inspections or audits requirements;
- e) Licensee failure to provide timely access to the Regulatory Authority of licensee's facilities and corporate records;
- f) Bankruptcy, financial insolvency or liquidation of licensee;
- g) Licensee failure to pay the regulatory fees.

Article 36: Proceeding of license suspension

A license suspension proceeding shall be conducted in the following manner:

- a) The Regulatory Authority shall commence a license suspension by sending written notice informing the licensee of the commencement of a suspension proceeding, and requiring licensee to file a response within five (5) working days;
- b) If the licensee contests the suspension or fails to convince the Regulatory Authority notice, the latter shall notify the licensee the final decision as soon as practicable;

- c) In case the Regulatory Authority confirms the license suspension, such decision shall be notified to the licensee.
- d) If the licensee does not correct such faults within six (6) months following the official announcement of license suspension, the license shall automatically be revoked.

CHAPTER V: REQUIREMENTS FOR RISKS PREVENTION AND MANAGEMENT

Article 37: Risk management program

To minimize risks that may arise from the daily operations, the Licensee shall take appropriate measure by putting in place a structured program of risk management as well as a health and safety policy.

Article 38: Protection of workers and visitors

The utility shall take adequate measures to effectively protect systems personnel and visitors from hazards such as physical injuries, infections, asphyxiation and poisonous gases. The following shall be considered to avoid possible hazards from faecal sludge handling:

- a) Enclosure of the facility site with a fence and signs designed to avoid unauthorized entrance;
- b) Provide access to the top of any system by means of a stairway or step-type ladder;
- c) Make available first aid equipment;
- d) Provide “No Smoking” signs in hazardous areas;
- e) Provide to employees with protective clothing and equipment. Each employee involved in faecal sludge handling must have and wear coverall (with service provider’s name), safety shoes, gloves and masks. Gas detectors and other protective equipment may be used whenever required;
- f) Have spare protective equipment for visitors;
- g) Provide warning signs for slippery areas, open service manholes, hazardous chemical storage areas and flammable fuel storage areas, excessive noise areas and confined spaces;
- h) Equipment must be electrically isolated before any maintenance work is carried out;
- i) Provide adequate ventilation in pump station areas;

- j) All operations and maintenance must be carried out by suitably trained and qualified personnel.

Article 39: Use and storage of chemicals

In case chemicals are used during faecal sludge collection and treatment., these must comply with national standards and must be used according to their technical specification. They must be properly labeled to indicate product properties, safety precautions and hazard information. chemicals shall be stored in a manner that eliminates risk of contamination, inhalation, skin contact or personal injury. For chemicals that require dilution before use, correct dilution shall be well indicated as well as the method of application.

Article 40: Staff training

All workers involved in faecal sludge management must be trained in faecal sludge handling procedures, correct operation of machinery and equipment as well as chemical handling.

Employees of the Service Provider shall receive continuing training to maintain knowledge of best practices and safety governing their activities; proper handling of equipment, techniques and pertinent environment standards.

Service Providers shall ensure that training for staff is provided by suitably qualified persons with the minimum objective including but not limited to:

- a) Recognize the safety features of each task;
- b) Demonstrate the correct procedure for each faecal sludge management task together with safety features;
- c) Implement best practice procedures in their day-to-day work routine.

Article 41: Complaints handling

The licensee or the holder of permit must act ethically, fairly and honestly in all its transactions with customers and shall develop, maintain and implement procedures of dealing with customer's complaints related to the provided services.

Article 42: Registry of consumers' complaints

The service provider shall maintain a registry of consumers' complaints received and resolved. The registry will record details of complaints received including the date, location and details of the problem, the names and contacts of the customer that lodged the complaint, the names of staff that received and handled the complaint and the time taken to resolve the case. The registry of complaints must be availed whenever required by the Regulatory Authority.

CHAPTER V: REPORTING, MONITORING AND COMPLIANCE

Article 43: Record keeping requirement

The Utility shall, with regard to the monitoring, maintenance and inspection purpose:

- a) Keep the results of all analyses, observations and measurements accurately recorded and signed by a responsible staff;
- b) Keep the date and time of all sampling, inspections and maintenance works well recorded;
- c) Make available the results of the monitoring program to an authorized officer of the responsible authority upon any request to do so;
- d) Keep all monitoring results for a period of three (3) years minimum.

Licensed Utility shall maintain financial and accounting records that shall be available for any inspection and whenever required by the Regulatory Authority.

Article 44: Obligation to submit the report

The licensed utility shall submit quarterly and annual reports in the format prescribed by the Regulatory Authority.

Article 45: Inspections

In the framework of monitoring the provision of faecal sludge management services, Regulatory Authority will conduct inspections to the licensed Utility and delegated service providers with the objectives of:

- a) Checking the compliance with the provisions of these regulations and other laws;
- b) Checking the performance of faecal sludge treatment facility and providing information about the type and condition of the facility as observed at a specific date and time;
- c) Recommending the Utility and delegated service providers on the way to improve the quality of services offered.

The licensed utility and delegated service providers shall implement the recommendations provided by the Regulatory Authority as a result of conducted inspections.

Article 46: Compliance

The licensed utility and authorized service providers have the obligation to comply with the provisions of these regulations, laws and other regulations pertaining to faecal sludge management.

CHAPTER VI: FAULTS AND ADMINISTRATIVE SANCTIONS

Article 47: Operating without license

The provision of faecal sludge management without a valid license issued by the Regulatory Authority is subject to a fine of one million (1,000,000) Rwandan Francs.

Article 48: Hindrance of the implementation of the Regulatory Authority's powers

Any operator who resists, hinders or obstructs the Regulatory Authority or any person acting on its behalf in the course of his duty under the provisions shall be liable to a fine of five hundred thousand (500,000) Rwandan francs.

Article 49: Failure to submit the reports

Failure to submit the required report within the specified time frame shall be liable to administrative fines specified in the Regulatory Board decision on levies to be paid by the licensed service providers.

Article 50: Provision of false information

The provision of false, inaccurate or misleading information, either in application for a license, report or any other document misleading the decision of the Regulatory Authority shall lead to license revocation.

Article 51: Lack of personal protective equipment

Failure to provide adequate personal protective equipment to workers involved in faecal sludge handling shall be liable to a fine of twenty thousand (20,000) Rwandan Francs per missing equipment per person.

Article 52: Right of appeal

The licensee has a right to make an appeal to the Regulatory Board in the following circumstances:

- a. When the concerned licensee is of the view that its license rights have been infringed upon;
- b. If the licensee does not agree with the faults and applied administrative sanctions.

The Request for Appeal shall be in writing addressed to the Chairperson of the Regulatory Board. It shall state the grounds for the appeal and shall be submitted within thirty (30) working days from the date of the appealed decision;

The licensee lodging an appeal will be given a written notice of the date of the appeal hearing at least seven (7) working days in advance;

At the appeal hearing, the grounds of appeal shall be treated as a new complaint and the issues shall be considered in their entirety;

The decision of the Regulatory Board on the appeal shall be communicated to the concerned licensee within seven (7) working days from the date of the appeal hearing.

If not satisfied by the decision made by the Regulatory Board, the appellant may make a hierarchical appeal to the supervisory organ of the Regulatory Authority.

CHAPTER VII: TRANSITIONAL AND FINAL PROVISIONS

Article 53: Transitional provision

Licenses granted under Regulation No 005/R/SAN-EWS/RURA/2016 governing liquid waste collection and transportation remain valid for a period of twelve months following the approval of this regulation by the Regulatory Board.

Article 54: Repealing provision

The Regulation No 005/R/SAN-EWS/RURA/2016 governing liquid waste collection and transportation and all other prior provisions contrary to this regulation are hereby repealed.

Article 55: Coming into Force

This Regulation shall come into force on the date of signature by the chairperson of the Regulatory Board.

Kigali,.....

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Chairperson of the Regulatory Board