

KENYA PLANT HEALTH INSPECTORATE SERVICE Quarantine and Plant Health Laboratory-Muguga			Page 1 of 11
TITLE AND ID.	SOP FOR WASTE MANAGEMENT –GE-15		
DEPARTMENT	All laboratories		
EFFECTIVE DATE	2nd October 2023		Version Number: 01

Approval and authorizations.

Completion of the below signature blocks signifies the review and approval of this document.

Name	Job title/role	Signature	Date
Authored by	Deputy Lab Manager	<i>Approved</i>	2nd October 2023
Checked by	Laboratory Manager	<i>Approved</i>	2nd October 2023
Approved by	Deputy Director-PQBS	<i>Approved</i>	2nd October 2023

Periodic reviews, approvals and authorizations

Required by: 1st May 2024

Name	Job title/role	Signature	Date
Checked by			
Approved by			

Periodic reviews, approvals and authorizations

Required by: 1st May 2027

Name	Job title/role	Signature	Date
Checked by			
Approved by			

KENYA PLANT HEALTH INSPECTORATE SERVICE Quarantine and Plant Health Laboratory-Muguga			Page 2 of 11
TITLE AND ID.	SOP FOR WASTE MANAGEMENT –GE-15		
DEPARTMENT	All laboratories		
EFFECTIVE DATE	2nd October 2023		Version Number: 01

1	SCOPE	3
2	Abbreviations and terms	3
3	Responsibilities	3
4	Materials and equipment	3
5	Principle	4
6	Procedures	4
6.1	Warnings and precautions	4
6.2	Procedural steps	5
6.3	Containment of waste	6
6.4	Storage of waste	6
6.5	Transporting waste	6
6.6	Record Keeping	6

KENYA PLANT HEALTH INSPECTORATE SERVICE Quarantine and Plant Health Laboratory-Muguga			Page 3 of 11
TITLE AND ID.	SOP FOR WASTE MANAGEMENT –GE-15		
DEPARTMENT	All laboratories		
EFFECTIVE DATE	2nd October 2023		Version Number: 01

1 Scope

- 1.1. The PBS laboratory is responsible for proper handling, storage and disposal of facility generated waste
- 1.2. This procedure will set forth guidelines for proper disposal and management of facility generated waste
- 1.3. It will outline specific handling procedures that will be used for disposal, storage and transport of waste
- 1.4. The waste management process begins before waste is produced. Management proceeds through several phases including separation, packing, transportation, treatment/destruction and disposal. Optimal management of waste at every level is important.

2 Abbreviations and Terms

- 2.1. PBS – Plant Quarantine & Biosecurity Station
- 2.2. SOP- Standard Operating Procedure.
- 2.3. QA- Quality Assurance

3 Responsibilities

- 3.1. Laboratory Biosafety officer or designee and all laboratory staff must make sure that the SOP is implemented and utilized as written
- 3.2. Laboratory Technologist/ Technician and Laboratory Biosafety officer or designees are responsible for reviewing, signing and dating all reports
- 3.3. Laboratory manager/designee is responsible for any changes made in this SOP

4 Materials and Equipment

- 4.1. Biohazard Containers
- 4.2. Trash receptacle
- 4.3. 10% Bleach Solution

KENYA PLANT HEALTH INSPECTORATE SERVICE Quarantine and Plant Health Laboratory-Muguga			Page 4 of 11
TITLE AND ID.	SOP FOR WASTE MANAGEMENT –GE-15		
DEPARTMENT	All laboratories		
EFFECTIVE DATE	2nd October 2023		Version Number: 01

4.4. Lab Coat

4.5. Gloves

4.6. Goggles

4.7. Incinerator

1. Biohazard bags
2. 70% alcohol

5 Principle

N/A

6 Procedures

6.1 Warnings and precautions

- 6.1.1. Do not push or pack regulated waste by feet or hands
- 6.1.2. Use clearly marked containers for each type of waste to ensure optimal segregation
- 6.1.3. Containers should be located in the immediate area of use
- 6.1.4. Use proper personal protective equipment when handling regulated waste

KENYA PLANT HEALTH INSPECTORATE SERVICE Quarantine and Plant Health Laboratory-Muguga			Page 5 of 11
TITLE AND ID.	SOP FOR WASTE MANAGEMENT –GE-15		
DEPARTMENT	All laboratories		
EFFECTIVE DATE	2nd October 2023		Version Number: 01

6.2 Procedural steps

6.2.1 Segregation of Waste

- 6.2.1 This is the initial and crucial point in waste handling process that will help determine the amount and type of waste for treatment and disposal
- 6.2.2 Designate waste at point of origin
- 6.2.3 Separate regulated waste from non-regulated waste
- 6.2.4 Separate sharps and broken contaminated glass and put in rigid, puncture resistant containers
- 6.2.5 Lock/seal sharps containers when $\frac{3}{4}$ full.
- 6.2.6 Hazardous waste can be:
- Infectious
 - Biological
 - Hazardous
 - Chemical
 - Radioactive
 - Sharps
- Non-hazardous waste can be:
- Papers
 - Kitchen garbage
 - Plastic vessels
 - Handling Waste

The following handling techniques can help ensure the safety and protection of personnel

KENYA PLANT HEALTH INSPECTORATE SERVICE Quarantine and Plant Health Laboratory-Muguga			Page 6 of 11
TITLE AND ID.	SOP FOR WASTE MANAGEMENT –GE-15		
DEPARTMENT	All laboratories		
EFFECTIVE DATE	2nd October 2023		Version Number: 01

6.3 Containment of Waste

- 6.3.1 Ensure all regulated waste is sealed properly with tape
- 6.3.2 Place bags in upright position to prevent spillage of liquid
- 6.3.3 Store regulated waste in approved red/yellow plastic bags that are impervious to moisture, puncture resistant, and display the distinctive biohazard symbol.
- 6.3.4 Use durable reusable containers for storage of regulated waste and ensure containers are cleaned and decontaminated with approved disinfectant each time they are emptied.
- 6.3.5 Use packaging that maintains its integrity during storage and transport

6.4 Storage of Waste

- 6.4.1 Store waste in a designated location with limited access
- 6.4.2 Floors should be impervious to liquid and room with good ventilation to control odors. Keeping storage area clean will keep vermin and other vectors away
- 6.4.3 Post the area prominently with the universal biohazard symbol
- 6.4.4 Storage of hazardous waste should be at a minimum amount of time and not exceed 7 days

6.5 Transporting Waste

- 6.5.1 Containers used to transport regulated waste should be marked as regulated waste immediately after packing
- 6.5.2 Display the universal biohazard symbol prominently on transporting containers
- 6.5.3 Keep personnel protective equipment and disinfectant available.

6.6 Record Keeping

- 6.6.1 Records should be kept when regulated waste is transported. At a minimum the following should be recorded (refer to appendix):

KENYA PLANT HEALTH INSPECTORATE SERVICE Quarantine and Plant Health Laboratory-Muguga			Page 7 of 11
TITLE AND ID.	SOP FOR WASTE MANAGEMENT –GE-15		
DEPARTMENT	All laboratories		
EFFECTIVE DATE	2nd October 2023		Version Number: 01

- 6.6.2 Name of generating section
- 6.6.3 Name of individual transporting waste
- 6.6.4 Phone number and contact person at generated site
- 6.6.5 Number of bags and or boxes transported
- 6.6.6 Time of departure from generated site
- 6.6.7 Time of arrival at incineration site
- 6.6.8 Name of incineration site
- 6.6.9 Phone number and contact person at incineration site
- 6.6.10 Name of person receiving regulated waste

6.7 Waste Disposal and Handling

- 6.7.1 Incineration will be the choice for disposal of generated regulated waste
- 6.7.2 Waste generated on site will be transported daily to a designated store and incinerated twice weekly, on Monday and Friday or as need be
- 6.7.3 Ash generated by incineration is disposed of in a designated pit near the incinerator
- 6.7.4 Proper paper work will accompany waste
- 6.7.5 Incineration site is to be notified of transport of generated waste
- 6.7.6 In this case the laboratory has given the schedule to the incineration site
- 6.7.7 Transport waste in appropriate containers
- 6.7.8 Avoid excessive specimen retention times
- 6.7.9 Substitute less hazardous reagents for more hazardous ones
- 6.7.10 Adopt techniques that require smaller reagent volumes

KENYA PLANT HEALTH INSPECTORATE SERVICE Quarantine and Plant Health Laboratory-Muguga			Page 8 of 11
TITLE AND ID.	SOP FOR WASTE MANAGEMENT –GE-15		
DEPARTMENT	All laboratories		
EFFECTIVE DATE	2nd October 2023		Version Number: 01

6.7.11 Relocate surplus or unwanted chemicals to laboratories that can use them

6.7.12 Reagents should be purchased in small quantities.

6.8 Training

6.8.1 Training of personnel involved in waste handling should include the following:

6.8.2 Explanation of waste management plan

6.8.3 Assigned roles and responsibilities for implementation of the plan

6.8.4 Risks of infectious waste

6.8.5 Location and proper use of personal protective equipment.

6.8.6 Meaning of color codes, the biohazards symbol and precautions to follow in handling regulated waste

6.8.7 Training should be implemented when management plan is first developed and instituted.

6.9 Contingency and Emergency Plan

6.9.1 If spills or damage of container are encountered during storage, handling or transporting of regulated waste the following will be done:

6.9.2 Put on gloves, goggles and protective outer garments.

6.9.3 Use copious amount of disinfectant to clean up spills.

6.9.4 Place waste in new biohazard bags or containers and seal properly.

6.9.5 Contact site manager and file report in the safety folder.

6.9.6 When transporting regulated waste; gloves, disinfectant and adsorbent materials should be carried to address any emergency spills

6.9.7 Any deviation should be documented in the corrective action log

KENYA PLANT HEALTH INSPECTORATE SERVICE Quarantine and Plant Health Laboratory-Muguga			Page 9 of 11
TITLE AND ID.	SOP FOR WASTE MANAGEMENT –GE-15		
DEPARTMENT	All laboratories		
EFFECTIVE DATE	2nd October 2023		Version Number: 01

6.9.8 Disposal of all solid and liquid wastes should be in compliance with the NEMA act ‘National environmental management and coordination’ act.

6.9.9

7. References

8. Forms and Appendices:

8.1 Internal waste tracking tool

KENYA PLANT HEALTH INSPECTORATE SERVICE Quarantine and Plant Health Laboratory-Muguga			Page 10 of 11
TITLE AND ID.	SOP FOR WASTE MANAGEMENT –GE-15		
DEPARTMENT	All laboratories		
EFFECTIVE DATE	2nd October 2023		Version Number: 01

APPENDIX 8.1 INTERNAL WASTE TRACKING TOOL

Plant Quarantine and Biosecurity Station (PBS) Internal waste management tracking sheet

Date	Point of origin	No of bags	Hazardous wastes	Non hazardous wastes	Packed by	Picked and stored by	Time of storage	Picked from PBS by	Date picked

Section head review: Name _____ Sign _____ Date _____

QA review: Name _____ Sign _____ Date _____



TITLE AND ID.

SOP FOR WASTE MANAGEMENT –GE-15

DEPARTMENT

All laboratories

EFFECTIVE DATE

2nd October 2023

Version
Number: 01