

Extraordinary



# FEDERAL REPUBLIC OF NIGERIA

## OFFICIAL GAZETTE

---

**NO.60**

**Abuja – 6<sup>th</sup> October, 2009**

**Vol.96**

---

Government Notice No. 281

The following is published as Supplement to this Gazette:

| S. I. No. | Short Title   | page |
|-----------|---|------|
| 28        | National Environmental (Sanitation and Wastes Control) Regulations 2009 |      |

---

Printed and Published by The Federal Government Printer, Lagos, Nigeria

FGP 112/102009/1,000 (OL 54)

**NATIONAL ENVIRONMENTAL STANDARDS AND REGULATIONS  
ENFORCEMENT AGENCY (ESTABLISHMENT) ACT, 2007**

**NATIONAL ENVIRONMENTAL (SANITATION AND WASTES CONTROL)  
REGULATIONS 2009**



**ARRANGEMENT OF REGULATIONS**

**TABLE OF CONTENTS**

**REGULATIONS**

- PART 1: PRELIMINARY PROVISIONS
- PART 2: ENVIRONMENTAL SANITATION
- PART 3: WASTES CONTROL
- PART 4: INSTITUTIONAL ROLES AND RESPONSIBILITIES
- PART 5: SANCTIONS AND ENFORCEMENT
- PART 6: APPROVED INTERVENTION PROGRAMMES
- PART 7: INTERPRETATIONS

**SCHEDULE**

# **National Environmental (Sanitation and Wastes Control) Regulations 2009**

In exercise of the powers conferred on me by Section 34 of the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007 and all other powers enabling me in that behalf, I, John Odey, Minister of Environment hereby make the following Regulations:

30<sup>th</sup> September, 2009

## **PART 1 – PRELIMINARY PROVISIONS**

1. These Regulations shall apply to issues in environmental sanitation and all categories of wastes as provided for herein.
2. The purpose of these Regulations is the adoption of sustainable and environment friendly practices in environmental sanitation and waste management to minimize pollution.

## **PART 2: ENVIRONMENTAL SANITATION**

### **1. GENERAL CLEANLINESS**

3. (1) No person is to discard, throw or drop any litter or any similar refuse anywhere except in designated litter bins.  
(2) No owner, operator, occupant or person in care, management or control of premises is to allow the release of litter into the environment.  
(3) No occupant or passenger of any vehicle is to throw or drop any litter onto the streets, roads, highways, public spaces and other undesignated places.
4. Without prejudice to the foregoing, any person whose activities generate waste shall ensure that the waste is handled by a person licensed to transport and dispose of the wastes in designated waste management facility.
5. Any occupant in care, control, or management of a premises or business shall:
  - a) Keep the sidewalks and drainage areas all around the building clean at all times;

- b) Ensure there is no sweeping out, or throwing of any litter into any drain, public place, private lands, vacant plot, streets, lanes, walkways, beaches or docks within 5 metres of the premises; and
  - c) Ensure there is no blockage of the streets, walkways, drains with building or construction materials such as sand, gravels or chippings, earth, stones, bricks or cement blocks, iron rods, etc.
6. (1) All Food Vendors shall, in line with National Policy Guidelines on Food Sanitation:
- a) ensure that litter and other wastes do not pollute the environment;
  - b) maintain hygiene or cleanliness of the location of business at all times; and
  - c) collect and dispose all wastes generated in the course of business to a designated collection point.
- (2) All Food Vendors shall comply with the provisions as contained in Schedule 1 to these Regulations.
7. All traders in the markets or in the management or control of a business or operation where wastes are generated in the vicinity shall:
- a) ensure that litter and recyclable materials are deposited in appropriate receptacles or wastes bins; and
  - b) maintain cleanliness and empty receptacle regularly.
8. A person in care, management or control of any industrial facility shall:
- a) provide welfare facilities such as potable water, conveniences cloakrooms and canteen;
  - b) provide educational and pictorial signs to direct persons where they can drop wastes;
  - c) provide receptacles for recyclable materials in appropriate and easily accessible locations;
  - d) service, maintain and empty the receptacles regularly;
  - e) keep the premises, drains and all public or private lands, streets, lanes, walkways; beaches or docks within 5 metres of the boundary of the property free from litter at all times;

- f) ensure that discarded materials are regularly collected and disposed of sanitarly;
  - g) ensure that recyclable materials are properly packed and neatly stacked; and
  - h) ensure sorting and segregation of solid waste at source.
9. (1) The minimum standards for domestic water shall conform to the standard as contained in schedule 2 to these Regulations.
- (2) All operators and suppliers of treated water, containerized water and water vendors shall comply with the relevant quality standards and ensure safe disposal of wastes emanating from their processes.
- (3) No person shall use water for trade or industrial undertaking unless such person complies with the standards established by these Regulations in regards to that particular activity.
- (4) The Agency in consultation with the relevant stakeholders shall take measures to ensure compliance with the set standards.

## II. DUTIES AND OBLIGATIONS

10. (1) Every owner of premises shall:
- a) provide portable water supply for the premises to ensure sound environmental sanitation and personal hygiene;
  - b) provide adequate number of toilets for the occupants as prescribed in Schedule 3 to these Regulations;
  - c) ensure that the construction and maintenance of septic tank or soak away pit or other on-site sanitation facilities comply with the provisions in Schedule 4 to these Regulations;
  - d) ensure regular maintenance of the structure;
  - e) provide drains for waste water, storm water and ensure linkage to surrounding network;
  - f) ensure that untreated sewage is not piped or discharged into public drains or roads; and
  - g) ensure regular dislodgement and safe disposal of the contents of the septic tank.
- (2) Every occupant of premises shall ensure:

- a) the cleanliness of the kitchen, drains, toilets, cloak rooms, bathrooms, animal pens and other rooms within the premises;
  - b) control of vectors in the premises; and
  - c) regular cutting of grasses, lawns, shrubs, flowers, etc in and around the premises.
11. Any person whose activities generate waste shall segregate such waste by:
- a) separating hazardous from non-hazardous waste;
  - b) separating all re-cyclables before putting them out for collection;
  - c) putting them into securely tied plastic bags or leak proof refuse bins with tightly fitting lids;
  - d) keeping refuse bins within the premises; and
  - e) disposing of them in facilities provided by the appropriate Authority.
12. It shall be the responsibility of individuals, groups of persons and bodies corporate to:
- a) report and fly tipping and disposal of wastes in or on undesignated location to the appropriate authority;
  - b) pay for the collection and disposal of waste; and
  - c) incorporate environmental care concerns in their day to day activities.
13. (1) Every household or dwelling unit shall have safe and adequate waste collection bins for storage of domestic wastes.
- (2) All vehicle owners shall provide appropriate litter receptacle for the use of occupants or passengers.
- (3) Relevant authorities shall provide appropriate and adequate litter bins in public places.
- (4) A person in care, management or control of any commercial, business premises or construction sites shall:
- a) provide adequate litter bins and receptacles for re-cyclable materials in appropriate and easily accessible locations;

- b) service and maintain the receptacles regularly, keep the premises and all public or private lands, streets, lanes, walkways, beaches or docks within 5 meters of the boundary of the property free from litter at all times;
  - c) ensure that wastes are collected and disposed of; and
  - d) ensure that all re-cyclable materials are neatly packaged and stacked before disposal.
- (5) A custodian of a venue or person organizes a public, private, recreational or religious event shall:
- a) provide adequate number of waste receptacles in appropriate and easily accessible locations to prevent littering;
  - b) ensure that such wastes are appropriately segregated;
  - c) service, maintain and empty the waste receptacles as required; and
  - d) ensure that the venue where an event takes place and all public or private lands, streets, lanes, passageways, beaches or docks within at least 15 meters of the boundary of the venue or property are free from all litter within 24 hours after the conclusion of the event.
14. All generators of wastes, owners or occupiers of premises where wastes are generated shall be legally and financially responsible for the safe and environmentally sound disposal of their wastes.
15. All generators and managers of wastes shall apply sustainable practices to minimize pollution.
16. (1) It shall be the responsibility of manufactures and producers to incorporate environmental concerns in the design, process and disposal of a product, as prescribed in the Agency's sectoral Regulations of such product.
- (2) All manufacturers and importers of food and beverage products shall partner with the Agency to establish an effective consumer product stewardship programme (PSP) and shall submit a proposal for such programme to the Agency for approval.
17. (1) All commercial facilities including recreational facilities shall:

- a) provide adequate toilet facilities with adequate water supply for the use of their customers;
- b) provide adequate hand washing facilities; and
- c) ensure that such toilets and hand washing facilities are kept clean at all times.

(2) A person who organizes or is responsible for a public, private or religious event, shall:

- a) provide adequate toilet facilities for the use of guests; and
- b) ensure that the contents of the toilets are properly disposed of into designated sewage handling facility or treatment plant by a licensed operator.

18. (1) The use of the following specification of plastic bags is banned in the country:

- a) the manufacture, trade and commercial distribution of plastic bags, made of plastic film, with a wall thickness of less than 80 micrometers.
- b) Notwithstanding paragraph (a) of this regulation, bread bags, made of plastic film, with a wall thickness of between 25 and 80 micrometers may be manufactured, traded and commercially distributed, for use within the country and, unless otherwise required by law, have printings or marks of any kinds.

19. All licensed sewage management operators shall register with the appropriate Authority.

### III. PUBLIC ADVERT INFRASTRUCTURE

20. Appropriate organ of Government shall designate and ensure the provision of adequate infrastructure for public advertisement.

21. No person shall paste or attach flyers, banners, advertisement or other literature except in places designated or approved by the relevant Authority.

### IV. BANNED PESTICIDES OR CHEMICALS FOR DOMESTIC FUMIGATION

22. (1) All Integrated Pest or Vector Management outfits shall comply with the provisions as contained in Schedule 5 to these Regulations.

(2) No Integrated Pest or Vector Management outfit shall use any of the banned Pesticides, chemicals or equipment as contained in Schedule 6 to these Regulations.



## PART 3: WASTES CONTROL

### I. SOLID WASTE CONTROL

23. All owners or occupiers of premises shall provide waste receptacles for storage before collection by licensed waste managers.
24. Any person who owns or control a facility or premises which generates waste shall reduce, re-use and recycle waste, to minimize pollution by adopting the following:
  - a) imbibe cleaner production principles to conserve raw material and energy;
  - b) segregate wastes at source;
  - c) ensure safe disposal.
25. A licensed waste manager shall undertake waste collection at the designated points at scheduled time or period following the waste collection and transportation guidelines in Schedule 7 to these Regulations.
26. Any person granted license to transport waste shall meet all operational conditions stated in Schedule 7 to these Regulations.
27. A person granted a license to transport wastes shall ensure that:
  - a) waste is collected from designated area of operations and delivered to the designated transfer station, disposal site or plant;
  - b) the collection and transportation of waste is conducted in such a manner that will not cause scattering escaping or flowing out of the waste; and
  - c) the vehicles and equipment for the transportation of waste are in such a state that shall not cause the scattering, escaping, flowing out of the waste or the emission of noxious smells, fumes or smoke from the waste.
28. The Agency shall grant license to persons qualified to offer services and shall have the power to revoke such license, as contained in the National Environmental (Licensing and Permitting Systems) Regulations, 2009.
29. Any person who before the commencement of these Regulations was carrying on the business of operating a waste management facility shall apply to the Agency for a license as contained in the National Environmental (Licensing and Permitting Systems) Regulations, 2009.

30. A license to operate a waste management facility shall be valid on such terms and conditions including revocation of such license when it has already been issued, as contained in the National Environmental (Licensing and Permitting Systems) Regulations, 2009.
31. Every licensed owner or operator of a waste management facility shall carry out environmental audit every three (3) years, pursuant to the provisions of the National Environmental (Licensing and Permitting Systems) Regulations 2009.
32. All manufactures and importers of various brands of products specified in Schedule 8 shall:
- a) register with the Agency;
  - b) undertake buy back of the containers for recycling;
  - c) embark on individual or collective Products Stewardship Programme as contained in Schedule 9 top these Regulations; and
  - d) support the Environmental Education and Awareness Programme of the Agency.
33. (1) Every waste management facility shall install at its premises anti-pollution technology for the treatment of waste emanating from such business or industrial undertaking.
- (2) Anti-pollution technology installed pursuant to sub-regulation (1) of this regulation shall be based on the best available technology that is economically achievable as may be prescribed by the Agency.
34. No owner or operator of a waste management facility shall discharge or dispose of any waste in any state into the environment, unless such waste has been treated in a manner or a standard prescribed by the Agency.

## II. CONTROL OF EFFLUENT DISCHARGE

35. (1) No effluent from a housing estate, hotel, commercial facility waste management facility, hospital, abattoir or livestock farm shall be discharged or cause to be discharged into the public drain or natural environment without a permit from the Agency.

(2) Pursuant to sub-regulation (1) of this regulation, no effluent so discharged shall exceed the permissible limits or levels as contained in Schedule 10 to these Regulations.

36. (1) No person shall carry out an act or acts which directly or indirectly causes, or may cause immediate or subsequent water pollution.

(2) No person shall throw or cause to flow into or near a water body any liquid, solid or gaseous substance or deposit any such substance in or near a water body, as to cause pollution.

37. Procedures for obtaining license or permit to operate a waste management facility, including revocation of such license or permit, when it had already been issued, are contained in the National Environmental (Permitting and Licensing System) Regulation, 2009.

38. (1) No person shall abstract ground water or carry out any activity near any lake, river, stream, spring or well that is likely to have any adverse impact on the quantity and quality of the water, without an Environmental Impact Assessment statement issued in accordance with the provisions of these Regulations.

(2) No person shall cultivate or undertake any development activity within a minimum of 6 meters and a maximum of 30 meters from the highest ever recorded flood level, on either side of a river or stream and as may be determined by the Authority from time to time.

(3) The Authority in consultation with the relevant stakeholders may impose bans, restrictions and other measures on the use of sources of water for domestic use in order to prevent and control degradation.

39. (1) No person shall discharge or apply any poison, toxic, noxious or obstructing matter, radioactive waste or other pollutants or permit any person to dump or discharge such matter into the natural environment.

(2) Every local authority or person operating a waste water facility or owner or operator of any trade or industrial undertaking issued with an effluent discharge Permit shall comply with the standards set out in these Regulations.

(3) every local authority or person operating a waste water facility or owner or operator of any trade or industrial undertaking shall comply with the provisions of the monitoring guidelines as set out in Schedule 11 to these Regulations.

40. Every owner or operator of a trade or industrial undertaking issued with a license by an appropriate authority to discharge effluent into any existing sewerage systems shall comply with the standards set out in Schedule 10 to these Regulations.
41. Every person or Industry who generates and discharges effluent into the environment under a permit issued under the National Environmental (Permitting and Licensing Systems) Regulations, 2009 shall carry out effluent discharge quality and quantity monitoring as prescribed in Schedules 11 and 12 to the Regulations.
42. No person shall be permitted to use wastewater for irrigation purposes unless such waste water complies with the quality guidelines set out in Schedule 10 to these Regulations.
43. Pursuant to regulation 42 of these Regulations, any owner or operator or an irrigation scheme shall create buffer zone of at least 50 meters in width between the irrigation scheme and the natural water body into which such irrigation scheme discharges its waters.

### III. HAZARDOUS WASTE CONTROL

44. No person shall engage in any activity likely to generate any hazardous waste as defined in these Regulations without a permit issued by Agency.
45. Hazardous waste types are as listed in Schedule 13 and classified in Schedule 14 to these Regulations.
46. Every generator of hazardous waste as classified in regulation 45 of these Regulations shall ensure that every container or package for storing such waste is secured, marked and labeled as prescribed in Schedule 15 to these Regulations.
47. Every person who generates toxic or hazardous waste shall treat or cause such hazardous waste to be treated using methods acceptable to the Agency.
48. Any leachate or other by-products of such treated waste shall be disposed of or treated in accordance with the provisions contained in the Permit.

49. (1) No person shall export or transit hazardous wastes without a valid permit issued by the Agency in consonance with International Conventions.
- (2) Where the Agency is satisfied that all the requirements have been complied with, it shall issue an export Permit to the applicant.
- (3) An export Permit issued under these Regulations shall relate to the specific export transactions and shall not be valid for any subsequent export transactions.
50. A Permit for the export of toxic or hazardous wastes issued under these Regulations shall not be transferable.
51. No person shall transit toxic or hazardous waste destined for another country through the territory of Nigeria without a valid Prior Informed Consent for such movement issued by the Agency.
52. (1) An applicant for a Permit issued under the Act and the national environmental (Permitting and Licensing Systems) Regulations, 2009 shall satisfy the Agency that he or she has subscribed to an insurance policy covering the risks likely to arise out of the activity for which the license is required.
- (2) A generator of waste which has been characterized as toxic or hazardous under these Regulations, shall upon written instructions from the Agency, subscribe to an insurance policy to cover the risks caused by the waste.
53. All industrial facilities using various hazardous chemicals and products shall ensure safe appropriate disposal of the hazardous chemical and containers.

#### IV. HEALTH CARE WASTE (HCW) CONTROL

54. Types of HCW are as listed in Schedule 16 of these Regulations.
55. No person shall own or operate any facility that treats HCW without a valid license issued by the Agency.
56. Any facility that generates HCW shall ensure that the generating facility is registered with the relevant Authority.
57. Any facility that generates HCW shall at the point of generation and at all stages thereafter segregate the waste as contained in Schedule 16 to these Regulations.

58. Any person who generates HCW shall treat or cause to be treated such waste in a manner s contained in Schedule 17 to these Regulations.
59. All HCW shall be securely packaged in colour coded bags or containers as contained in Schedule 18 to these Regulations.
60. (1) No person shall transport HCW without a valid permit issued by the relevant Authority.
- (2) No person shall transport or allow to be transported, HCW other than in a designated vehicle.
61. Within six months of the commencement of these Regulations, existing operators of HCW management facility, shall submit Environmental Audit Reports and thereafter submit such Reports, every three years to the Agency.
62. All HCW management facilities shall submit waste management report quarterly to the relevant Authority.

#### PART 4: INSTITUTIONAL ROLES AND RESPONSIBILITIES

63. The Agency shall:
- a) ensure the implementation of the provisions of the National Environmental Sanitation Policy and Guidelines at all levels of Government;
  - b) enforce compliance with the provisions of these Regulations;
  - c) issue Permits as prescribed in the relevant regulations of these Regulations;
  - d) ensure compliance with conditions of the Permits as contained in the relevant Schedules;
  - e) establish strategies alliance with other Federal Ministries, Departments and Agencies (MDAs), States, Local Government Areas (LGAs) and other relevant stakeholders;
  - f) ensure that the waste management facilities comply with the Environmental Impact Statement (EIS);
  - g) embark on intensive environmental education and awareness campaign on sound environmental sanitation and waste management;

- h) develop and publicise set standards for environmental sanitation, waste management and equipment procurement and maintenance;
  - i) develop and periodically review the Regulations, Standards and Guidelines on Environmental Sanitation and Waste Management;
  - j) initiate and institutionalize extended product program with emphasis on 'buy back' initiative;
  - k) establish data bank on environmental sanitation and waste management;
  - l) be responsible for the monitoring of five-star hotel;
  - m) ensure that the States and Local Governments make provisions for land for waste management facility;
  - n) provide technical assistance to States and Local governments; and
  - o) ensure safe and sustainable control of waste generated by specialized agencies.
64. (1) States shall establish sanitation and integrated waste management programs and ensure the provision and maintenance of:
- a) abattoirs;
  - b) adequate toilets and urinals in public places;
  - c) waste receptacles in the streets and premises of all kinds;
  - d) sites for development of waste management facilities in Local Government Areas.
- (2) The State shall:
- a) ensure clearance of litter and refuse from designated dumps sites;
  - b) be responsible for the registration and monitoring of three and four-star hotels;
  - c) ensure that Large and Medium Scale Food Premises comply with relevant guidelines;
  - d) register Municipal and Health Care Waste Collectors;
  - e) register Integrated Pest and Vector Management Outfits; and
  - f) ensure compliance with the provisions of these Regulations.
65. (1) All Local government Areas shall ensure the provision and maintenance of:
- a) Sanitary slaughter houses;
  - b) Toilets and urinals in public places; and

- c) Waste receptacles in the streets, premises of all kind and public places;
- (2) The LGAs shall:
- a) be responsible for the clearing of litter and waste on the highways;
  - b) be responsible for the registration and monitoring of one and two-stars hotels including Small Scale Food Premises;
  - c) ensure that Small Scale Food Premises comply with guidelines;
  - d) register Municipal and Health Care Waste Collectors;
  - e) register Integrated pest and Vector Management Outfits; and
  - f) ensure compliance with the provisions of these Regulations.

#### PART 5: SANCTIONS AND ENFORCEMENT

66. In order to ensure effective implementation of these Regulations and promote stakeholder involvement in environmental sanitation, the following programme shall be implemented by governments in collaboration with the public and private sector under the strategic alliance programme:
- a) Waste Minimisation Programme
  - b) Extended Producers Responsibility Programme
  - c) Plastic film Phase-out Programme
  - d) Hazardous Waste Management Programme
  - e) Waste Management Enlightenment Programmes (Information, Education and Communication).
  - f) Research and Development Programme on Environmental Sanitation
  - g) National Waste or Sanitation Databank.

#### I. ENFORCEMENT

67. The enforcement power of all the provisions relating to meeting the requirements and standards on environmental sanitation and waste control provided in these Regulations is vested on the Agency and on the basis of any information available to it, the Agency may take any enforcement action at any time as may be appropriate.



68. (1) If an owner or occupant in care of premises or in control or management of a business is in contravention or is likely to contravene the provision of any regulation, guideline or condition of the Permit, the Agency shall serve an enforcement notice.
- (2) An enforcement notice shall:
- a) Specify the matters constituting the contravention or the matters making it likely that the contravention will arise, as the case may be;
  - b) Specify the steps that must be taken to remedy the contravention or to remedy the matters making it likely that the contravention will arise, as the case may be; and
  - c) Specify the period within which those steps must be taken.
69. Enforcement notice shall be hand delivery or delivered by registered post or courier, newspaper publication or pasting at the address of the owner or occupant of the premises.
70. Where a person fails to comply with enforcement notice within specified period as contained in regulation 68(2) of these Regulations, a second notice will be served to him.

## II. OFFENCES

71. It shall be an offence for an owner or occupant in care of premises or in control or management of a business to –
- a) release or causes litter to be released into the environment;
  - b) fails to contain and dispose litter at construction or demolition site regularly;
  - c) fails to segregate waste for proper management;
  - d) fails to provide standard containers for storage sorted wastes before collection;
  - e) fails to provide, service, maintain or empty receptacles for litter and recyclable materials;
  - f) fails to keep litter away from 15 meters within the premises or vacant plots;
  - g) fails to locate water source away from pollution source;
  - h) fails to immediately clean up or remove debris from around a dug well after installing or repairing pumping equipment;

- i) constructs dug well within 15 meters of soak away pit or similar disposal unit or septic tank, refuse dump, landfill or other source of contamination;
  - j) fails to supply information as required for approval to operate waste management facility;
  - k) fails to maintain waste management facility in clean and orderly condition;
  - l) fails to comply with the decommissioning conditions of waste management facility as may be prescribed by the Agency;
  - m) fails to submit to the Agency within a specific period, information or data about material received at dumpsite, landfill or incinerator operations;
  - n) carries out or allows open burning of any waste materials including confiscated items or materials;
  - o) owns, operates or manages a waste management facility that fails to meet the national standards;
  - p) fails to comply with requirements of the abatement or enforcement notices;
  - q) suspends, dismiss or imposes penalty on any employee who reports any contravention of these Regulations to the Agency; and
  - r) fails to provide and ensure the use appropriate personal protective equipment while handling, treating or disposing of wastes;
72. It shall be an offence for any commercial, industrial and recreational facility not to –
- a) Provide adequate toilet facilities or conveniences for the use of both sexes;
  - b) Provide hand washing facilities;
  - c) Ensure that such toilets and hand washing facilities are kept clean at all times;
  - d) Segregate waste for recycling; and
  - e) Provide standard receptacles for storage of sorted wastes before collection.
73. It shall be an offence for a person who organizes or is responsible for a public, religious, or private event, party, meeting, or the custodian of such venue not to –
- a) Provide adequate toilets for the use of guests;
  - b) Ensure sanitary disposal of the contents of the toilet into designated sewage handling facility or treatment plant by a licensed operator;

- c) Provide an adequate number of receptacles for litter and recyclable materials in appropriate and easily accessible locations;
- d) Service, maintain and empty the receptacles as required; and
- e) Ensure that the venue where the event takes place and all public or private lands, streets, lanes, passageways, beaches or docks within 15 metres of the boundary of the venue or property are free from litter within 24 hours after the conclusion of the event.

74. It shall be an offence if a person fails to:

- a) comply with the conditions of any guideline, standard or Permit;
- b) comply with the requirements of an enforcement notice, under the Regulations; and
- c) comply without reasonable excuse with any requirement imposed by a notice served by the Agency.

75. It shall be an offence if a food premises fails to:

- a) comply with the conditions of any guidelines or standard contained in these Regulations;
- b) comply with the requirements of an enforcement notice, under these Regulations;

76. It shall be an offence to make a statement which is known to be false or misleading particularly, where the statement is made:

- a) in purported compliance with a requirement to furnish any information imposed by or under any provision of these Regulations;
- b) for the purpose of obtaining a Permit;
- c) to intentionally make a false entry in any record required to be kept under the condition for issuing a Permit; or
- d) with intent to deceive, forge or use a document issued or authorized to be issued under any of the conditions of a permit.

77. It shall be an offence for any person or facility to:

- a) release or discharge untreated effluent into the environment;
- b) release effluent and sludge into the environment in excess of the permissible level;

- c) fail to report release of effluent and sludge into the environment in excess of the permissible level as contained in Schedules 10 and 11 to these Regulations; and
78. It shall be an offence for a person who engages in any activity likely to generate hazardous waste as defined in Schedule 13 to these Regulations not to have a permit issued by the Agency.
79. It shall be an offence for any generator of hazardous waste as classified under Schedules 13 and 14 to these Regulations not to ensure that every container or package for sorting such waste is secured, marked and labeled as prescribed in Schedule 15 to these Regulations.
80. It shall be an offence for any person who generates toxic or hazardous waste not to treat or cause to be treated such hazardous waste using methods acceptable to the conditions approved by the Agency.
81. It shall be an offence for any person exporting or transiting hazardous wastes to do so without a valid permit issued by the Agency in consonance with international conventions.
82. It shall be an offence for a permit for the export of toxic or hazardous wastes issued under these Regulations to be transferred.
83. It shall be an offence for any person to transit toxic or hazardous waste destined for another country through the territory of Nigeria without a valid Prior Informed Consent for such movement issued by the Agency.
84. It shall be an offence for any generator of waste which has been characterized as toxic or hazardous under these Regulations, not to subscribe to an insurance policy, upon written instructions from the Agency, to cover the risks caused by the wastes.
85. It shall be an offence for any Industrial facility using various hazardous chemicals and products not to ensure safe and appropriate disposal of the hazardous chemicals and containers.
86. It shall be an offence for any person to own or operate any facility that treats HCW without a valid license issued by the Agency.

87. It shall be an offence for any facility that generates HCW not to be registered with the relevant Authority.
88. It shall be an offence for any facility that generates HCW not to segregate the waste at the point of generation and at all stages thereafter as contained in schedule 16 to these Regulations.
89. It shall be an offence for any HCW not to securely package in colour coded bags or containers as contained in Schedule 18 to these Regulations.
90. It shall be an offence for any person who generates HCW not to treat or cause to be treated such wastes in a manner as contained in Schedule 16 to these Regulations.
91. It shall be an offence for any person to:
- a) transport HCW without a valid permit issued by the relevant authority; or
  - b) allow HCW to be transported other than in the designated vehicle.
92. It shall be an offence for existing operators of HCW management facility within six (6) months of the commencement of these Regulations, not to submit Environmental Audit Reports and thereafter submit such reports every three years to the Agency.
93. It shall be an offence for any HCW management facilities not to submit waste management report quarterly to the relevant Authority.

### III. PENALTIES

94. Any person who violates the provisions of regulation 71 paragraphs (a) to (i) of these Regulations shall be guilty of an offence and shall on conviction be liable to a fine of N20,000:00 or imprisonment for six (6) months or to both such fine and imprisonment.
95. Any person who violates the provision of regulation 71 paragraphs (k) to (r) of these Regulations shall be guilty of an offence and shall on conviction be liable to a fine of N200,000:00 or imprisonment for one (1) year or to both such fine and imprisonment.
96. Any person who violates regulation 72 of these Regulations shall be guilty of an offence and shall on conviction be liable to a fine of N50,000:00 or imprisonment for eight (8) months or to both such fine and imprisonment.

97. Any person who violates regulation 73 of these Regulations shall be guilty of an offence and shall on conviction be liable to a fine of N100,000:00 or imprisonment for one (1) year or to both such fine and imprisonment.
98. Any person who violates regulation 74 of these Regulations shall be guilty of an offence and shall on conviction be liable to a fine of N250,000:00 or imprisonment for eighteen (18) months or to both such fine and imprisonment.
99. Any person who violates regulation 75 of these Regulations shall be guilty of an offence and shall on conviction be liable to a fine of N100,000:00 or imprisonment for twelve (12) months or to both such fine and imprisonment.
100. Any person who violates regulation 76 of these Regulations shall be guilty of an offence and shall on conviction be liable to a fine of N250,000:00 or imprisonment for eighteen (18) months or to both such fine and imprisonment.
101. Any person who violates regulation 77 of these Regulations shall be guilty of an offence and shall on conviction be liable to a fine of not exceeding N500,000:00 or imprisonment for two (2) years or to both such fine and imprisonment.
102. Notwithstanding the provisions of these Regulations, the provisions of the Harmful Wastes (Special Criminal Provisions, etc.) Act, Cap. H1, Laws of the Federation of Nigeria 2004, shall apply as appropriate, in respect of offences under these Regulations.
103. Any person who violates regulations 78 to 85 of these Regulations shall be guilty of an offence and shall on conviction be liable to a fine of N5,000,000:00 or to imprisonment for five (5) years or to both such fine and imprisonment.
104. Any person who violates regulations 86 to 93 of these Regulations shall be guilty of an offence and shall on conviction be liable to a fine of N250,000:00 or imprisonment for eighteen (18) months or to both such fine and imprisonment.

#### PART 6: APPROVED INTERVENTION PROGRAMMES

105. As part of the Agency's Strategic Alliance Programme on Environmental Sanitation and Waste Control, all States and Local Government Areas shall ensure that their

programmes conform to the Agency's programme on same for proper harmonization and implementation as contained in Schedule 8 to these Regulations.

#### PART 7: INTERPRETATIONS

106. In these Regulations, unless the context otherwise requires:

"Act" means National Environmental Standards and Regulations Enforcement Agency (establishment) Act 2007;

"Agency" means National Environmental Standards and Regulations enforcement Agency established under Section 1 of the Act;

"Applicant" means any person who applied to the Agency or its accredited representative for authorization to perform specific activities connected with chemical, pesticides, radioactive substances and waste management;

"Authorities" mean any level of Government Federal, States and Local or their agencies having responsibility to perform a particular action;

"Authorized agent" means Government and all authorized or licensed waste handlers charged with the responsibility of the collection, transportation and disposal of municipal solid waste.

"Backyard composting" means process of decomposing organic solid waste such as grass clippings, leaves or food waste at a residential dwelling unit;

"BPO" means Best Practicable Option and is a non-conventional standard based on cost, environmental and engineering factors;

"Beverage container" means a container of less than 5 litres which contains or has contained a beverage and was sealed by the manufacturer after the beverage was placed in it;

"Biodegradable substance" means a substance that can be decomposed by microorganisms;

"Building or construction materials" include sand, gravels or chipping, earth, stones, bricks or cement blocks, iron rods, etc being used at construction sites;

“Compost” means a product of compositing which is used or sold for use as a soil amendment, artificial topsoil or growing medium or for some other application to land;

“Composting” means the biological decomposition of organic materials, substances or objects under controlled circumstances to a condition sufficiently stable for nuisance-free storage and safe use in land applications;

“Construction and demolition debris” means materials which are normally used in the construction of buildings, structures, roadways, walls and other landscaping material, and includes, but is not limited to, soil, asphalt, brick, mortar, drywall, plaster, cellulose, fiberglass fibre, gypsum board, lumber, wood, asphalt shingles, and metals;

“Commercial establishment” mean premises where business transactions or marketing takes place including hotels, food premises, supermarkets, stores, fast food restaurants, vending outlets, markets, plazas, estates, petrol station etc;

“Commercial distribution” means making plastic bags directly or indirectly available for packaging or carrying goods or carrying of waste and distribution has a corresponding meaning;

“Community waste” means non-hazardous wastes generated from households, commercial and institutional land uses, construction sites, street wastes and recreational facilities;

“Designated dumpsite” means an approved site for refuse dump;

“Disposal” means final destination of wastes including put away, sales, transformation burial etc excluding open burning of refuse;

“Disposal site” means any area of land on which waste disposal facilities are physically located or final discharge point without the intention of retrieval but does not mean a re-use or re-cycling plant or site;

“End-of-Life Waste” means a post-consumer waste of products appliances, equipment, machinery that may have physical integrity but have lost its utility value (e.g. tyre, vehicle, television, cooker, refrigerator, mobile phones, etc) which the owner has discarded, intends to discards or is required to discard;



“Fly-tipping” means the illegal dumping of all kinds of waste such as household, animal carcass, disused vehicle parts and tyres, and those from building and demolition work;

“Generator” means person, group of persons, body corporate or incorporate whose endeavour, practice, vocations, and engagements occasion the production of waste;

“Hazardous Waste” means any waste or combination of wastes that exhibits ignitable, corrosive, reactive, or toxic characteristics and poses a substantial danger, now or in the future, to human, plant or animal life, and which therefore cannot be handled or disposed of without special precautions;

“Health Care Waste (HCW)” means waste:

- a) which is generated during the diagnosis, treatment or immunization of human beings or animals or in research or activities pertaining thereto or in the production or testing of biological experiments;
- b) generated in medical and health institutions (dispensaries, hospitals, polyclinics and outpatient departments, dental clinics, veterinary stations, pharmacies, patent medical shops etc), as a result of use of contamination during diagnosing, medical treatment and prevention of diseases in humans and animals;

“Holder” means any natural or legal entity in possession of waste;

“Incinerator” means a facility designed or used for the primary purpose of destruction of municipal solid waste by combustion;

“Incineration” means the controlled burning of solids, liquids, gaseous combustible waste to produce gases and residues containing little or no Combustible materials;

“Industrial Waste” means waste arising from processing and manufacturing industries or trade undertakings and can take the form of liquid, non-liquid, solid and gaseous substances;

“Industry Stewardship Agreement” means an agreement between the Agency and the Manufacturers and the Importers of various brands of beverage and paint products that sets out the terms of the Buy Back Stewardship Programme;

“Large-scale developments” means any form of industrial project or major institutional, commercial or housing project that consists of over fifty family units and includes all mineral resources exploration and exploitation projects;

“Leaf and yard waste” means vegetative matter resulting from gardening horticulture, landscaping or land clearing operations, including materials such as tree and shrub trimmings, plant remains, grass clippings, leaves, trees and stumps, but excludes construction and demolition debris or contaminated organic mater;

“Litter” means any material including scrap paper, newspaper, sweet rapper, water sachet, fruit skins etc, left or abandoned in a place other than a receptacle or place intended or approved for receiving such material and “littering” has a corresponding meaning;

“Litter Bins” are receptacles used for receiving discarded and disused items;

“Large Scale Business” means any facility that has more than fifty employees;

“Mark” whether used in a compound with any other word or not, includes any symbol, sign, drawing, design, badge, emblem, representation, heading, name, word, signature, letter or numeral or any combination of two or more thereof;

“Medium Scale Business” means any facility that has from ten to fifty employees;

“Minister” means the Minister of Environment;

“Municipal Solid Waste” means garbage, refuse, sludge, rubbish, tailings, debris, litter and other discarded materials resulting from residential, commercial or institutional facilities which are commonly accepted at a municipal solid waste management facility, but excludes wastes from industrial activities regulated by the Agency;

“Natural Environment” means natural eco-system;

“Occupants” means any person, firm, partnership, association or corporation; in care of a premises, management or control or a business or residing permanently or temporarily in the premises;

“Packaging waste” means any material that are used for storage, protection, handling, delivery and presentation of goods that the holder is discarding, intends to discard or is required to discard, except for the residues form the production;

“Person” means any person, operator, contractor, facility, firm, enterprise partnership, body corporate or incorporate, industry, etc.

“Plastic bag” means –

- a) a plastic carrier bag with handles which is designed for the general purpose of carrying goods purchased by customers;
- b) a plastic flat bag constructed withy no gussets or handles which is designed for the general purpose of carrying goods purchased by consumers; and
- c) a plastic refuse bag which is designed for the general purpose of carrying waste;

“Plastic bread wrapping” means –

- a) a flimsy bread bag with a wall thickness between 5 and 10 micrometers, which is designed for the purpose of packing bread;
- b) a shrink lene bread bag with a width of 500 millimeters and a wall thickness between 8 to 12 micrometers, which is designed for the purpose of packaging bread; and
- c) a bread bag, which is wicketed, with a wall thickness between 25 and 30 micrometers, which is designed for the purpose of packaging bread;

“Practice”: Activity or operation involving planning, development or implementation of waste strategy, design of waste management facility or carrying out any of the following operations in the waste management facility: handling, storage, processing treatment, recycling/recovering and disposal of waste;

“Premises” means and includes buildings, lands, tenements, tents, structures, vans, vehicles of any kind, drain, ditches or places open, covered or enclosed, and any ship or vessel in any port or any inland water;

“Private event” means an event where more than 300 persons are in attendance at one location, but excludes an event held in a residential dwelling;

“Radioactive Waste” means any radioactive material that has been, or will be, discarded as being of no further use;

“Recycling of waste” means the processing of waste material into a new product of similar chemical composition;

“Reprocessing” means the processing of waste into a new product of different chemical composition;

“Reuse” means waste used again with or without cleaning or repairing;

“Segregation” means any activity that separates waste materials for processing;

“Sludge” means a non flowing mixture of solids and liquids;

“Storage” means temporary placement of waste in a suitable location or facility where isolation, environmental and health protection and human control are provided in order to ensure that waste is subsequently retrieved for treatment and conditioning or disposal;

“Sanitary landfill” means the method of disposing of refuse on land without creating nuisances or hazards to public health or safety but utilizing the principles of engineering to confine the refuse to the smallest practical area, to reduce it to the smallest practical volume, and to cover it with a layer of earth at the conclusion of each days operation or at such more frequent intervals as may be necessary;

“Scrap” means off-specification goods, by-product or residues from processes, end-of-life objects and antiquities that is required to be disposed of;

“Sewage” means a combination of liquid waste which may include chemicals, house wastes, human excreta, animal or vegetable matter in suspension or solids or other solids in suspension or solution and which is discharged from residential, estates or industrial and commercial facilities;

“Small scale business” means any facility that has less than ten employees;

“Special products” means material goods that the Agency has considered and published as goods or products that their post-consumer waste will be difficult to manage or will constitute potential hazard to humans or the environment;

“Secondary raw materials” these are industrial inputs that are recovered from waste or waste in their right that can be re-used;

“Solid waste” means all putrescible and non-putrescible solid and semisolid waste including garbage, rubbish, ashes, industrial waste, swill, demolition or construction waste, abandoned vehicles or parts thereof and discarded commodities;

“Solid waste collector” mean the person entering into contract with the authorized government agent, of so designated by the authorized government agent, for the collection and transportation of solid waste as provided in these Regulations;

“Sustainable environment friendly practices” means a waste management method that takes all practical steps to ensure that waste is managed in a manner that will protect human health and the environment against the adverse effects which may result from the waste with optimum utilization of resources;

“trade” means the sale of plastic bags to any person, including but not limited to manufacturers, wholesalers and retailers of goods, for use in the country;

“Toxic Chemical” means any substance, which on entry into an organism through ingestion, inhalation and dermal contact is injurious, causes physiological or biochemical disturbances or otherwise causes deterioration of the functions of the organism in any way;

“Treatment” means any method, technique or process for altering the biological, chemical or physical characteristic of wastes to reduce the hazards it presents;

“Vehicles” means a motorized medium of transportation;

“Waste Generator” means any person whose activities or activities under his or her direction produces waste or if that person is not known, the person who is in possession or control of that waste;

“Waste Generator” means any person whose activities or activities under his or her direction produces waste or if that person is not known, the person who is in possession or control of that waste;

“Waste Manager” means a “fit and proper” person carrying out waste management practice in Nigeria;

“Waste Oils” means any mineral, synthetic or industrial oils in liquid or semi-liquid state that have become unfit for the use they had been originally intended, and in particular used oils for internal combustion engines, oils for gearbox, as well as oils for turbines and hydraulic oil;

“Waste Recovery” means the processing of waste materials for re-use utilization in the manufacture of goods, or for the generation of goods or energy;

“Waste handling” means collection, segregation, transportation, and storage of waste;

“Waste management” means

a) Waste management planning, handling, treatment, processing and disposal, including the supervision of these operations, as well as the measures for protection of the environment and of human life and health during the operation of the environment and of human life and health during the operation of the facilities and installations for waste disposal, and the care taken after the termination of their operations generation and of its negative impact on the environment and human life health, including waste handling;

b) The administrative and operational activities, that are used in handling, packaging, treatment, conditioning, reducing, recycling, reusing, storage and disposal of waste;

“Waste processing” includes the operations specified by this Law intended for utilization of the usable substances and components of waste, including the procedures for reuse, recycling and use of waste as energy source, with the exception of waste burning for definite disposal of waste. It is the act of waste recovery’

“Waste treatment” means the mechanical, physical, thermal, chemical or biological processes, including sorting, that result in change in the properties of the waste, with a view to reducing the volume or hazardous nature thereof, facilitating the handling or making it more suitable for processing disposal;

“Waste recycling” means obtaining substances from waste (secondary raw materials) and their utilization as a substitution of the primary raw materials, or use of properties of the substances contained in the waste for their initial purpose, or for other purposes, excluding the direct use of the energy of the waste;

“Waste asbestos” mean any residue from the production, processing and use of asbestos, as well as the substances, materials and products containing asbestos, which the generator is discarding, intends to discard or is required to discard;

“Waste Management Facility” means an establishment set up including fixed or mobile machineries, equipments, premises or land used for the sole purpose of managing final disposal of solid waste;

107. These Regulations may be cited as the National Environmental (Sanitation and Wastes Control) Regulations, 2009.

## SCHEDULE I

### GUIDELINES FOR FOOD HANDLERS

Regulation 6(2)

1. Anybody engaged in the handing, preparation, process or sale of food meant for human consumption shall:
  - a) undergo routine food handlers test and obtain a medical certificate of fitness;
  - b) provide adequate potable water supply in the facilities as prescribed by the regulations;
  - c) provide adequate running water in the restaurant for washing of plates and hand washing before and after eating;
  - d) wrap loaves of bread, confectionaries or edible fruits, offered for sale or meant for human consumption as prescribed by these regulations.
  - e) maintain high standard of sanitation in food premises, stores and places where food is sold;
  - f) use detergents and preferably hot water to clean surfaces, equipment, floors and walls and
  - g) regularly remove food waste from all food-preparation areas.
2. When handling food, Food handlers shall observe the following:
  - a) not handling food when they are ill, especially if you have diarrhoea, open wound, boils, running nose, eye discharge, etc;
  - b) covering cuts, burns, sores, and abrasions with a water proof dressing;
  - c) showering or bathing daily;

- d) keeping their clothes clean, wearing clean apron and changing it, if they wipe their hands on it or it becomes soiled;
- e) not wearing jewellery, such as costume rings, bangles, etc, while handling food;
- f) keeping their hair clean and covered;
- g) keeping their finger nails short, clean and unpolished;
- h) using soap and adequate quality of water to wash their hands frequently, especially after any act that might contaminate foods such as:
  - i. touching their eyes, mouth, ears, nose or hair;
  - ii. smoking;
  - iii. eating or drinking;
  - iv. using the rest room (toilets) sneezing or coughing;
  - v. using a tissue or handkerchief;
  - vi. handling raw food (such as unwashed fruits or vegetables or uncooked meat);
  - vii. emptying rubbish bin or plastic bag;
  - viii. touching a pet or animal;
  - ix. touching any dirty surface and objects (such as money, soiled dishes or clothes);
- i) keeping raw food away from ready-to-eat or cooked food;
- j) keeping all food away from chemicals including chemical cleaning agents;
- k) keeping cold or frozen foods out of the refrigerator or freezer for as short a time as possible;
- l) washing all raw fruits and vegetables thoroughly with clean water before preparation;
- m) covering food during preparation;
- n) handling tableware that may touch people's mouth properly when serving food;
- o) never serving food that has touched the floor, unwashed hands, or dirty equipment;
- p) always using a clean pair of tongs or scoop to serve food;
- q) never touching prepared food with bare hands but using protective covering such as gloves;
- r) wiping up spillages promptly;



- s) when tasting, always use the two-spoon tasting method as this ensures that the spoon used for tasting does not get in contact with the food being prepared;
- t) not talking over food;
- u) providing hand washing facilities in the restaurants area for customers use; and
- v) placing food on an elevated platform, and not on the floor.

## SCHEDULE II

### QUALITY STANDARDS FOR SOURCES OF DOMESTIC WATER

Regulation 9 (1)

| <b>Parameter Guide</b>    | <b>Value (Max. allowable)</b> |
|---------------------------|-------------------------------|
| pH                        | 6.5 - 8.5                     |
| Suspended solids          | 30 (mg/L)                     |
| Nitrate- NO <sub>3</sub>  | 10 (mg/L)                     |
| Ammonia – NH <sub>3</sub> | 0.5 (mg/L)                    |
| Nitrite – NO <sub>2</sub> | 3 (mg/L)                      |
| Total Dissolved Solids    | 1200 (mg/L)                   |
| (E.coli)                  | Nil/100ml                     |
| Fluoride                  | 1.5 (mg/L)                    |
| Phenols                   | Nil (mg/L)                    |
| Arsenic                   | 0.01 (mg/L)                   |
| Cadmium                   | 0.01 (mg/L)                   |
| Lead                      | 0.05 (mg/L)                   |
| Selenium                  | 0.01 (mg/L)                   |
| Copper                    | 0.05 (mg/L)                   |
| Zinc                      | 1.5 (mg/L)                    |

|                             |                 |
|-----------------------------|-----------------|
| Alkyl benzyl sulphonates    | 0.5 (mg/L)      |
| Permanganate value          | (PV) 1.0 (mg/L) |
| Arsenic (AS)                | 0.010 (mg/L)    |
| Cadmium (Cd)                | 0.005 (mg/L)    |
| Chloride (Cl)               | 250 (mg/L)      |
| Chromium (Cr)               | 0.10 (mg/L)     |
| Iron (Fe)                   | 0.03 (mg/L)     |
| Mercury (Hg)                | 0.002 (mg/L)    |
| Lead (Pb)                   | 0.015 (mg/L)    |
| Sodium (Na)                 | -               |
| Sulphate (SO <sub>4</sub> ) | 250 (mg/L)      |
| Turbidity                   | 5 NTU (mg/L)    |

NTU = Nephelometric Turbidity Unit

“Nil” means less than limit of detection using prescribed sampling and analytical methods and equipment as determined by the Agency and any other parameters as may be prescribed by the Agency from time to time.

Source: WHO and USEPA

### SCHEDULE III

#### GUIDELINES FOR RECOMMENDED APPROVED NUMBER OF TOILETS

Regulation 10(b)

| <b>S/N</b> | <b>No. of Persons</b> | <b>No. of Conveniences</b> |
|------------|-----------------------|----------------------------|
| 1.         | 1-10                  | 1 Toilets                  |
| 2.         | 11-20                 | 2 Toilets                  |
| 3.         | 21-30                 | 2 Toilets                  |
| 4.         | 41-75                 | 3 Toilets                  |
| 5.         | 76-100                | 3 Toilets                  |

Note: Over 100 persons, one toilet to every additional 30 persons.

In case of institutions and industrial facilities, provision of urinals shall be made to compliment the toilets.

### SCHEDULE IV

#### GUIDELINES SEPTIC TANK CONSTRUCTION

Regulation 10(c)

Septic Tanks shall:

- a) be located at least 15m from any potable water supply, well, spring or unprotected suction line;
- b) maintain at least a minimum isolation distance of 15m from any lake, pond, creek, or other surface water flooding or its highest flood plain elevation;
- c) not be located closer than 2m to any footing or foundation wall;
- d) not be located closer than 4m to any property line or boundary wall;
- e) not be placed where it is inaccessible for dislodgement or inspection, nor shall any structure be placed over any septic tank.

## SCHEDULE V

### GUIDELINES FOR INTEGRATED PEST AND VECTOR CONTROL

Regulation 22(1)

All integrated Pest and Vector Management Outfit shall:

- a) dispose used pesticide containers in compliance with established procedures;
- b) pay attention and care to eco-Packaging, Labelling and Storage and destroy all empty pesticides containers using approved disposal method;
- c) use appropriate or personal Protective Equipment (PPE) such as respirators, nose masks, goggles, gloves, boots, long sleeve overall coats and helmets, while carrying out pest control operations;
- d) ensure that no smoking, eating or drinking is undertaken during operations;
- e) ensure that all food stuffs, cooked foods, cutleries, pates, drinking glasses or cups, etc are removed to a safer place before fumigation;
- f) undertake periodic biological monitoring especially serum cholinesterase levels for all pesticide handlers;
- g) ensure that all chemicals are kept out of the reach of children;
- h) ensure that chemical stores do not open to any other premises;
- i) provide a fire extinguisher and First Aid Equipment.

## SCHEDULE VI

### LISTS OF BANNED PESTICIDES

Regulation 22(2)

| <b>S/No.</b> | <b>Pesticides</b>                       | <b>National Import Decisions</b> |
|--------------|---|----------------------------------|
| 1.           | Heptachlor                              | Banned                           |
| 2.           | Flouroacedtamide                        | Banned                           |
| 3.           | Chlordane                               | Banned                           |
| 4.           | Mercury compounds                       | Banned                           |
| 5.           | Ethylene 1.2-dibromide (EDB)            | Banned                           |
| 6.           | Chlordimenform                          | Banned                           |
| 7.           | Dinoseb and Dinoseb salts               | Banned                           |
| 8.           | Dichlorodiphenxyl trichloroethane (DDT) | Banned                           |
| 9.           | Pentachlorophenyl                       | Banned                           |
| 10.          | 2,4,5-T                                 | Banned                           |
| 11.          | Chlorobeniphate                         | Banned                           |
| 12.          | HCH (mixed isomers)                     | Banned                           |
| 13.          | Aldrin                                  | Banned                           |
| 14.          | Diedrin                                 | Banned                           |
| 15.          | Methamidophos                           | Banned                           |
| 16.          | Methyl Parathion                        | Banned                           |
| 17.          | Parathion                               | Banned                           |
| 18.          | Paraquat                                | Banned                           |
| 19.          | Lindane                                 | Severe restriction               |
| 20.          | Captafol                                | Severe restriction               |

|     |   |                    |
|-----|---|--------------------|
| 21. | Hexachloro benzene                                  | Severe restriction |
| 22. | Phosphamidon  | Severe restriction |
| 23. | Zinc phosphide                                      | Severe restriction |
| 24. | Ugilec 121  | Severe restriction |
| 25. | Cyanide   | Severe restriction |
| 26. | Benzidine   | Severe restriction |
| 27. | Mercuric oxide                                      | Severe restriction |
| 28. | Mercury   | Severe restriction |
| 29. | Aminobiphenyl                                       | Severe restriction |
| 30. | Prpanoic acid 2,2-dichloro                          | Severe restriction |
| 31. | Mercuric chloride                                   | Severe restriction |
| 32. | Ethane, 1,2,-dichloro-                              | Severe restriction |
| 33. | Maleichydrazide 3,6- peryridazinedione, 1,2-dihydro | Severe restriction |

## SCHEDULE VII

### GUIDELINES FOR WASTE COLLECTION AND TRANSPORTATION VEHICLE

Regulations 25 and 26

1. every vehicle used for the transportation of wastes shall:
  - a) be registered with appropriate Environmental Authority;
  - b) have the name of the company conspicuously written on both side of the body;
  - c) be painted in bright colours;
  - d) have a hauling body constructed of metal, or any other approved material and all joints in the hauling body shall be effectively sealed and smoothened to avoid drippings or leakages of liquids;
  - e) be provided with a tight metal hood having adequate opening fitted with smoothly operating loading and unloading doors; or

- f) have a means of covering the waste to be hauled and keep such waste secured within the hauling body to prevent dispersal;
- g) have covers made with appropriate material such as tarpaulin, canvas cover fitted with proper eyes, grommets and tie ropes and hooks whereby the cover can be held securely over the loaded wastes;
- h) not be loaded with garbage to a level above the side wall height if it does not have permanent covers;
- i) be thoroughly washed or steam cleaned regularly and kept in good working condition;
- j) conduct such collection and transportation of waste in such a manner that will not cause scattering escaping or flowing out of the waste;
- k) be in such a state that shall not cause the scattering, escaping, flowing out of the waste or emitting of noxious smells from the waste;
- l) collect waste from designed areas of operations and shall deliver such waste to the designated transfer station, disposal site or plant.

## SCHEDULE VIII

### MATERIALS AMENDABLE TO EXTENDED PRODUCTS RESPONSIBILITY PROGRAMME

Regulation 32

| <b>S/No</b> | <b>Products</b>      | <b>Implementation Date</b>     |
|-------------|----------------------|--------------------------------|
| 1.          | Plastic materials    | 31 <sup>st</sup> March, 2010   |
| 2.          | Used tyres           | 31 <sup>st</sup> March, 2010   |
| 3.          | E-waste              | 31 <sup>st</sup> January, 2011 |
| 4.          | Newsprint and Papers | 31 <sup>st</sup> March, 2010   |
| 5.          | Batteries            | 31 <sup>st</sup> January, 2011 |
| 6.          | Metals               | 31 <sup>st</sup> January, 2011 |
| 7.          | Cans or Tins         | 31 <sup>st</sup> March, 2010   |
| 8.          | Glass                | 31 <sup>st</sup> January, 2011 |
| 9.          | Refrigerators        | 31 <sup>st</sup> January, 2011 |
| 10.         | Asbestos waste       | 31 <sup>st</sup> March, 2010   |

## SCHEDULE IX

### GUIDELINES FOR EXTENDED PRODUCERS RESPONSIBILITY PROGRAMME

Regulation 32 (c)

1. The manufacturers and importers of products as contained in Schedule 8 shall be responsible for the management of the end-of-life waste of their products. These responsibilities shall include information, physical and financial commitment.
2. The manufacturers and importers of products as mentioned in Schedule 8 shall individually or collectively submit a Product Stewardship Programme (PSP) to the Agency for approval;
3. The PSP shall;
  - a) (i) establish a process for the collection, handling, transportation and final treatment of post-consumer products, regardless of who the original brand owner of the products or the consumer is;  
  
(ii) employ various types of processes to reduce, reuse, recycle or recover post-consumer products, including but not limited to details of efforts to incorporate the priorities of a pollution prevention hierarchy by moving progressively from disposal to reduction, reuse, recycling and recovery of post-consumer products;  
  
(iii) establish the location of any long-term containment or final treatment and processing facilities for post-consumer products;  
  
(iv) monitor the types of educational information and programs provided;
  - b) Submit on or before June 30 in each year to the Agency, an annual report on their consumer PSP which report is to include the following:
    - i) the total amount of consumer products sold and post—consumer waste collected;
    - ii) the total amount of post-consumer waste processed or in storage;
    - iii) the percentage of post-consumer waste that was treated, contained, reduced, reused, recycled or recovered; efforts taken through consumer product marketing strategies to reduce post-consumer waste;
  - c) Any other information requested by the Agency; and
  - d) failure to participate shall attract penalties.



## SCHEDULE X

### GUIDELINES ON PERMISSIBLE LIMITS FOR WASTE WATER DISCHARGE

(to be replaced by the additional document)

Regulations 35(2), 42 and 77(c)

| Parameters       | Units | Hospital Waste<br>Water | Abattoirs<br>Wastewater | From commercial<br>facilities disposal<br>into Sewer |
|------------------|-------|-------------------------|-------------------------|--|
| pH               |       | 6.5 – 9.8               | 6 - 9                   | 6.0 – 8.0  |
| BOD              | mg/l  | 30                      | 50                      | 50   |
| COD              | mg/l  | 50                      | 250                     | 100  |
| Suspended solids | mg/l  | 100                     | 50                      | 1200   |
| Sulphide         | mg/l  |                         | 1.0                     |  |
| Chromium         | mg/l  |                         | 1.0                     |  |
| Chloride         | mg/l  |                         | 1000                    |  |
| Sulphate         | mg/l  |                         | 300                     |  |
| Ammonia          | mg/l  |                         | 10                      |  |
| Oil and Grease   | mg/l  |                         | 10                      |  |
| Phosphorus       | mg/l  |                         | 2                       |  |
| Phenols          | mg/l  |                         | 0.5                     |  |
| Arsenic          | mg/l  |                         |                         | 0.2  |
| Nitrogen         | mg/l  |                         |                         | 10   |
| Cadmium          | mg/l  |                         |                         | 0.1  |
| Copper           | mg/l  |                         |                         | 1.0  |
| Lead             | mg/l  |                         |                         | 0.1  |
| Mercury          | mg/l  |                         |                         | 0.01   |
| Nickel           | mg/l  |                         |                         | 1.0  |
| Selenium         | mg/l  |                         |                         | 1.0  |
| Zinc             | mg/l  |                         |                         | 1.0  |

**SCHEDULE XI**  
**STANDARDS FOR THE DISPOSAL OF INDUSTRIAL EFFLUENTS**

Regulation 77 (c)

| S/No. | Parameters  | Tolerance Limits for Industrial Effluent Discharged  |  |  |   |
|-------|---|--|--|--|---|
|       |   | IS: 3306-1974<br>Into Public<br>Sewer  | IS: 3307-1965<br>On Inland for<br>Irrigation | IS: 2490<br>Into Inland<br>Surface waters  | IS: 7968-1976<br>Marine Disposal<br>Standards                     |
| 1     | pH  | 5.5 to 9.0   | 5.5 to 9.0                                   | 5.5 to 9.0   | 5.5 to 9.0  |
| 2     | Temperature (maximum)   | 50 <sup>0</sup> C  | -  | Shall not exceed 40 <sup>0</sup> C in any section of the stream within 15 meters down stream from the effluent outlet. | 40 <sup>0</sup> C at the point of discharge                       |
| 3     | Total Suspended Solid mg/l  | 650 (Relaxable to 750 by the local authority)  | -  | 100  | a) For processed wastewater-100<br>b) Cooling water effluent      |
| 4     | Particle size of Total Suspended Solids                               | -  | -  | Shall pass 850 Microns IS: SIEVE (See IS: 460-1962)  | a) Flotable solid, Max. 3<br>b) Settleable solid, Max 850 Microns |
| 5     | Total Dissolved Solids, mg/l  | 2100* (Inorganic)  | 2100   | -  | -   |
| 6     | Biochemical Oxygen Demand for 5 days at 20 <sup>0</sup> C, mg/l (Max) | 500 (Subject to relaxation or tightening by the local authority)   | 500  | 30   | 100   |
| 7     | Chemical Oxygen, Demand mg/l  | -  | -  | 250  | 250   |
| 8     | Oil and Grease, mg/l  | 100  | 30   | 10   | 20  |
| 9     | Chloride (as Cl), mg/l  | 600*   | 600  | -  | -   |
| 10    | Phenolic Compounds, mg/l  | 5 as (C <sub>6</sub> H <sub>5</sub> OH) (Relaxable to 50 by the local authority when secondary treatment of sewage is carried out) | -  | 1.0  | 5 (C <sub>6</sub> H <sub>5</sub> OH)                              |
| 11    | Cyanide (as Cn), mg/l   | 2.0  | -  | 0.2  | 0.2   |

|    |   |                                      |                                      |                                      |   |
|----|---|--------------------------------------|--------------------------------------|--------------------------------------|---|
| 12 | Sulphates (as SO <sub>4</sub> ), mg/l                                       | 1000*                                | 1000                                 | -                                    | -   |
| 13 | Sulphides (as S), mg/l  | -                                    | -                                    | 2.0                                  | 5.0   |
| 14 | Insecticides, mg/l  | -                                    | -                                    | Absent                               | -   |
| 15 | Pesticide, mg/l   | -                                    | -                                    | -                                    | a) 1 organo-phosphorus Compounds (as P)<br>b) 0.02 Chlorinated Hydrocarbons (as Cl) |
| 16 | Total Residual chloride, mg/l   | -                                    | -                                    | 1                                    | 1   |
| 17 | Fluoride (as F,) mg/l   | -                                    | -                                    | 2.0                                  | 15  |
| 18 | Boron (as B), MG/L  | 2*                                   | 2                                    | -                                    | -   |
| 19 | Arsenic (as A), mg/l  | -                                    | -                                    | 0.2                                  | 0.2   |
| 20 | Percent sodium  | 60*                                  | 60                                   | -                                    | -   |
| 21 | Cadmium (as Cd), mg/l   | -                                    | -                                    | 2.0                                  | 2.0   |
| 22 | Copper (as Cu), mg/l  | 3                                    | -                                    | 3.0                                  | 3.0   |
| 23 | Lead (as Pb), mg/l  | 1                                    | -                                    | 0.1                                  | 1.0   |
| 24 | Hexavalent Chromium (as Cr)   | 2.0                                  | -                                    | 0.1                                  | 1.0   |
| 25 | Mercury (as Hg), mg/l   | -                                    | -                                    | 0.01                                 | 0.01  |
| 26 | Nickel (as N), mg/l   | 2                                    | -                                    | 3.0                                  | 5.0   |
| 27 | Selenium (as Se) mg/l   | -                                    | -                                    | 0.05                                 | 0.05  |
| 28 | Zinc (as Zn), mg/l  | 15                                   | -                                    | 5                                    | 5.0   |
| 29 | Radio Active Materials<br>A Alpha Emitters, uc/ml<br>B Beta Emitters, uc/ml | 10 <sup>-7</sup><br>10 <sup>-6</sup> | 10 <sup>-9</sup><br>10 <sup>-8</sup> | 10 <sup>-7</sup><br>10 <sup>-6</sup> | 10 <sup>-8</sup><br>10 <sup>-7</sup>  |
| 30 | Ammonical Nitrogen (as N), mg/l   | 50                                   | 0                                    | 50                                   | 50  |

Note: \*These requirements shall apply when, after treatment, the Sewage Effluent is Disposed of for Irrigation and on Land.

SCHEDULE XII  
GUIDELINES FOR WASTE WATER TREATMENT FACILITY

Regulation 41

1. any high density residential or commercial land use shall have a central on-site waste water treatment plant if it is within the following categories:
  - a) residential estate with more than 25 dwelling units.
  - b) Hotels or hostels and commercial buildings with more than 100 rooms
  - c) Hospitals with more than 100 beds
  - d) Institutional developments such as barracks, universities, office complexes.

SCHEDULE XIII  
TYPES OF HAZARDOUS WASTE

Regulations 45 and 78

Types of hazardous Waste include:

- a) Waste that exhibits any of the following hazardous properties:
  - i) explosive;
  - ii) flammable liquids or solids;
  - iii) poisonous;
  - iv) toxic;
  - v) ecotoxic; and
  - vi) infectious substances
- b) Wastes that belong to any of the following categories:
  - i) clinical wastes;
  - ii) waste oils/water, hydrocarbons/water mixtures, emulsions;
  - iii) wastes from the production, formulation and use of resins, latex, plasticizers, glues or adhesives;
  - iv) wastes resulting from surface treatment of metals and plastics;
  - v) water arising from industrial processes;
  - vi) residues arising from industrial waste disposal operations; and
  - vii) wastes which contain certain compounds such as: copper, zinc, cadmium, mercury, lead and asbestos.
- c) End-of-Lie waste of Household electrical and electronic appliances or residues arising from the incineration of the same.
- d) Waste that contains dangerous substances (as identified by the Agency) above standard limits established by the Agency based on scientific factors or as a result of international commitment.
- e) Special wastes which are highly dangerous substances or objects that are under the concurrent control of both Federal and State Governments and these include:
  - i) Radioactive waste (material and equipment);
  - ii) Decommissioned explosive e.g. ammunition, fireworks, etc;

- iii) Waste resulting from prospecting, extraction, treatment, and storage of mineral resources;
- iv) Waste deposited or discharged into waterways under Federal jurisdiction; and
- v) Any other waste so defined.

## SCHEDULE XIV

### LIST OF HAZARDOUS CHARACTERISTICS (UNITED NATIONS (UN) CODE CHARACTERISTICS CLASS)

Regulations 45 and 79

| UN Class | Code | Characteristics   |
|----------|------|---|
| 1        | H1   | <p><b>Explosive</b></p> <p>An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which in itself if is capable of producing gas by chemical reaction at such a temperature and pressure and at such a speed as to cause damage to the surroundings.</p>  |
| 3        | H3   | <p><b>Flammable Liquids</b></p> <p>The word "flammable" has the same meaning as "inflammable". Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example paints, varnishes, lacquers and others but not including substances or wastes otherwise classified on account of their dangerous characteristic) which give off a flammable vapour at temperatures of not more than 60.5<sup>0</sup>C, closed-cup test, or not more than 65.6<sup>0</sup>C open-cup test (since the results of open-cup tests and closed-up tests are not strictly comparable and even individual results by the same tests are often variable, regulations varying from the above figure that make allowance for such difference would be within the spirit of this definition).</p> |
| 4.1      | H4.1 | <p><b>Flammable Solids</b></p> <p>Solids or waste solids, other than those classed as explosive, which under conditions encountered in transport are readily combustible or may cause or contribute to fire through friction.</p>   |
| 4.2      | H4.2 | <p><b>Substances or wastes liable to spontaneous combustion</b></p> <p>Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport or to heating up on tract with air, and then liable to catch fire.</p>   |
| 4.3      | H4.3 | <p><b>Substances or wastes which, in contact with water emit flammable gases</b></p> <p>Substances or wastes which, by interaction with water, are liable to</p>  |

become spontaneously flammable or give off flammable gases in dangerous quantities.

5.1 H5.1

**Oxidizing**

Substances or wastes which, while in themselves not necessary combustible, may generally, by yielding oxygen, cause or contribute to the combustion of other materials.

5.2 H5.2

**Organic Peroxides**

Organic Substances Or Wastes Which Contain The Bivalent O-O-Structure Are Thermally Unstable Substances Which May Undergo Exothermic Self-Accelerating Decomposition. In Addition, They Any Have One Or More Of The Following Properties:

- a) be liable to explosive decomposition;
- b) burn rapidly;
- c) be sensitive to impact or friction;
- d) react dangerously with other substances; and
- e) cause damage to the eyes.

## SCHEDULE XV

### GUIDELINES FOR LABELING AND PACKAGING OF HAZARDOUS WASTES CONTAINERS

Regulations 46, 78 and 79

1. The label shall contain the following information in legible characters, written in English:
  - a) identity of the hazardous waste;
  - b) name, physical address and telephone contact of the generator of waste;
  - c) waste composition and total weight of waste;
  - d) normal storage stability and methods of storage;
  - e) name and percentage of weight of active ingredients and names and percentages of weights of other ingredients or half-life of radioactive material;
  - f) warning or caution statements which may include any of the following as appropriate:
    - i) the words "WARNING" or "CAUTION";
    - ii) the word "POISON" (marked indelibly in red) on a contrasting background;
    - iii) the words "DANGER! KEEP AWAY FROM UNAUTHORIZED PERSONS"; and
    - iv) a pictogram of a skull and crossbones.

- g) a statement of first aid measures, including the antidote when inhaled, ingested or on dermal contact and a direction that a physician must be contact immediately.

**SCHEDULE XVI**  
**CATEGORIES OF HEALTH CARE WASTE**

Regulations 54, 57, 88 and 90

|    |                                      |  |
|----|--------------------------------------|--|
| 1  | Infectious Waste                     | Waste suspected to contain pathogens e.g. laboratory cultures, waste from isolation wards, tissues (swabs), materials, or equipment that have been in contact with tubings, catheters, IGS toxins, live or attenuated vaccines, soiled plaster gauze and other materials contained with blood of infected patients, excreta. |
| 2  | Pathological waste                   | Human and animal tissues or fluids e.g. body parts, blood and other body fluids, fetuses, animal carcasses.  |
| 3  | Sharps                               | Sharps waste e.g. needles, infusion sets, scalpels, knives, blades, broken glass that may cause puncture and cuts. This includes both used and unused sharps.  |
| 4  | Pharmaceutical waste                 | Waste containing pharmaceutical e.g. pharmaceuticals that are expired or no longer needed; items contaminated by or containing pharmaceuticals (bottles, boxes).   |
| 5  | Genotoxic waste                      | Waste containing substances with genotoxic properties e.g. waste containing cytostatic drug (often used in cancer therapy), genotoxic chemicals.   |
| 6  | Chemical waste                       | Waste containing chemical substances e.g. laboratory reagents; film developer, disinfectants, (disinfectants) that are expired or no longer needed solvents  |
| 7  | Waste with high content heavy metals | Batteries, broken thermometers, blood-pressures of gauges, etc.  |
| 8  | Pressurized containers               | Gas cylinders, gas cartridges, aerosol cans.   |
| 9  | General solid waste                  | Waste generated from offices, kitchens, packaging materials from stores  |
| 10 | Microorganisms                       | Any biological entity, cellular or non-cellular capable of replication or of transferring genetic material.  |

SCHEDULE XVII  
TREATMENT METHODS OF HEALTH CARE WASTES

Regulation 58

| S/No. | Waste category                             | Treatment method                              |
|-------|--|---|
| 1     | Contaminated animal carcasses              | Incineration                                  |
| 2     | Cultures and stock                         | Steam sterilization                           |
| 3     | Contaminated bedding or patient care waste | Steam sterilization or Incineration           |
| 4     | Contaminated small equipment               | Steam sterilization or Incineration           |
| 5     | Contaminated large equipment               | Formaldehyde decontamination                  |
| 6     | Waste biological                           | Steam sterilization or Incineration           |
| 7     | Surgery waste                              | Steam sterilization or Incineration           |
| 8     | Human blood                                | Steam sterilization or Incineration           |
| 9     | Autopsy waste                              | Incineration                                  |
| 10    | Human blood products                       | Steam sterilization or Incineration           |
| 11    | Contaminated laboratory waste              | Steam sterilization or Incineration           |
| 12    | Pathological waste                         | Steam sterilization, Incineration or grinding |
| 13    | Dialysis unit waste                        | Steam sterilization                           |
| 14    | Contaminated and unused sharps             | Steam sterilization, Incineration or grinding |

**Note:**

1. Chemical treatment using at least 1% hypochlorite solution or any other equivalent chemical reagent.
2. Chemical treatment must be ensured at all times.
3. Mutilation or shredding must be such as to prevent unauthorized reuse.
4. There will be no chemical pre-treatment before incineration.
5. Chlorinated plastics shall not be incinerated.
6. Deep burial shall be option available only in towns with population less than five hundred thousand and in rural areas.



SCHEDULE XVIII  
NATIONAL COLOUR CODE FOR HEALTH CARE WASTE

Regulations 59 and 89

|   | <b>Type of Waste</b>                           | <b>Colour of Container and Markings</b> | <b>Type of Container</b>                             |
|---|--|---|--|
| 1 | Infectious                                     | Yellow                                  | Strong leak proof-plastic bag with biohazard symbol. |
| 2 | Pathological                                   | Yellow                                  | Strong leak proof-plastic bag with biohazard symbol. |
| 3 | Sharps   | Yellow (marked sharps)                  | Puncture proof                                       |
| 4 | Chemical and Pharmaceutical                    | Brown                                   | Plastic bag or container                             |
| 5 | Non-infectious or non-hazardous (non-clinical) | Black                                   | Plastic bag or container                             |

Note: Waste collection bags for waste types needing incineration shall not be made of chlorinated plastics.

DATED at Abuja this 30<sup>th</sup> day of September, 2009

Mr. John Odey,  
Honourable Minister  
Ministry of Environment

