

Extraordinary



Federal Republic of Nigeria

Official Gazette

No. 160

Lagos - 5th September, 2022

Vol. 109

Government Notice No. 142

The following is published as supplement to this *Gazette* :

<i>S. I. No.</i>	<i>Short Title</i>	<i>Page</i>
79	National Environmental (Electrical and Electronic Sector) Regulations, 2022	B3451-3514

Printed and Published by The Federal Government Printer, Lagos, Nigeria
FGP 186/122022/150

Annual Subscription from 1st January, 2022 is Local : ₦50,000.00 Overseas : ₦65,000.00 [Surface Mail] ₦80,000.00 [Second Class Air Mail]. Present issue ₦3,500 per copy. Subscribers who wish to obtain *Gazette* after 1st January should apply to the Federal Government Printer, Lagos for amended Subscriptions.

NATIONAL ENVIRONMENTAL (ELECTRICAL AND ELECTRONIC SECTOR) REGULATIONS, 2022



ARRANGEMENT OF REGULATIONS

Regulations :

PART I — OBJECTIVE AND APPLICATION

1. Objective.
2. Application.

PART II — GENERAL PROVISIONS

3. Importation of electrical and electronic equipment (EEE).
4. EEE facility requirements.
5. Emergency Response Plan.
6. Minimum standards for emissions.
7. Installation of anti-pollution equipment.
8. Polluter-Pays-Principle.
9. Best practices.
10. Best practices in information and communication technology.
11. Pollution control organisation system.
12. Extended producer responsibility.
13. Prohibition of operations without a permit.
14. Management of oil station and fuel dump sites.
15. Community relations.
16. Effluent limitation standard.
17. Restriction on the release of toxic effluent.
18. Treatment of effluent.
19. Sludge disposal.
20. Emission standards.
21. Priority air pollutants.
22. Burning of fuels.
23. Treatment technologies for air emission.
24. Noise standards.
25. Collection and analysis of samples.

PART III — E-WASTE CONTROL

26. E-waste handling.
27. Registration, licensing and approval.
28. E-waste disposal.

29. Use of Personal Protective Equipment (PPE).
30. Citizen's obligation.
31. Collection centre and recycling plant operations.
32. Record keeping.

PART IV — PERMITS

33. Transit permit.
34. Insurance policies.
35. Issuance of permits.
36. Effective date.
37. Transfer of permit.
38. Permit application procedure.
39. Permit terms and conditions.
40. Permit modifications.
41. Permit revocation.
42. Proprietary rights.
43. Duty to provide information.

PART V — INDUSTRIAL EFFLUENT MONITORING AND REPORTING

44. Reporting requirements.
45. Authorised signatory.
46. Monitoring records.
47. Confidential information and public access to records.

PART VI — ENFORCEMENT

48. Enforcement notice.
49. Mode of delivery.
50. Enforcement notice reminder.
51. Sealing of a facility.
52. Equity.

PART VII — OFFENCES AND PENALTIES

53. Offences.
54. Penalties.

PART VIII — MISCELLANEOUS

55. Recognition for environmental leadership.
56. Revocation.
57. Interpretation.
58. Citation.

SCHEDULES

S. I. No. 79 of 2022

NATIONAL ENVIRONMENTAL (ELECTRICAL AND ELECTRONIC SECTOR) REGULATIONS, 2022

[16th Day of August, 2022]

Commence-
ment.

In exercise of the powers conferred on me by section 34 of the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007 (as amended), and all other powers enabling me in that behalf, I, **MOHAMMED H. ABDULLAHI**, Honourable Minister, Federal Ministry of Environment, make the following Regulations —

PART I — OBJECTIVE AND APPLICATION

1. The objective of these Regulations is to provide measures for preventing and minimizing pollution from operations and ancillary activities of the electrical and electronic sector to the environment.

Objective.

2.—(1) These Regulations shall apply to new and used electrical and electronic equipment (EEE) in Nigeria.

Application.

(2) These Regulations is based on life cycle approach and shall cover all aspects of the electrical and electronic sector from cradle to cradle.

(3) The principles of these Regulations shall be anchored on the 5Rs, reduce, repair, reuse, recover and recycle, as the primary drivers of the sector and shall include all categories and EEE lists as specified in the First Schedule to these Regulations.

PART II — GENERAL PROVISIONS

3.—(1) A new EEE imported into Nigeria shall be functional and have the date of manufacture and warranty indicated on it.

Importation
of electrical
and
electronic
equipment
(EEE).

(2) An EEE imported into or assembled in Nigeria shall have a PIN and serial number inscribed on it.

(3) A person who imports new EEE into Nigeria shall register with the National Environmental Standards and Regulations Enforcement Agency ("the Agency") and the Producer Responsibility Organisation ("PRO").

(4) A used EEE imported into Nigeria shall comply with the provisions as provided in the Second Schedule to these Regulations.

4.—(1) A person who engages in power organisation, operates a waste electronic electrical equipment (WEEE) facility or an e-waste recycling facility shall —

EEE facility
requirements.

(a) register with the Agency ;

(b) carry out Environmental Impact Assessment (EIA) for a new project or Environmental Evaluation Report (EER) for modification or expansion of an existing project prior to commencement of any activity ;

(c) submit an Environmental Audit Report (EAR) to the Agency every 3 years for an existing facility ;

(d) subject to paragraph (c) sub-regulation (1) of this regulation, submit to the Agency an EAR for verification and approval where the facility is to be decommissioned, transferred or alienated ;

(e) submit an Environmental Management Plan (EMP) to the Agency as provided in the Third Schedule to these Regulations ;

(f) submit a right-of-way Maintenance Plan to the Agency ; and

(g) subscribe to the Emergency Response Plan (ERP) and register with the PRO.

(2) A person who operates a facility shall apply up-to-date, best practice environmental practices.

Emergency
Response
Plan.

5.—(1) A person shall adopt energy efficient measures to ensure resource conservation and circular economy.

(2) The energy efficient measures adopted by a person shall be detailed in the EAR submitted to the Agency as provided in regulation 4(1)(c) of these Regulations.

Minimum
standards
for
emissions.

6.—(1) The National Standards for effluent or emission limitations represent minimum standards and different effluent standards shall be required based on the condition of the receiving medium.

(2) A person shall ensure that pollutants are prevented, eliminated, or reduced at source.

Installation
of anti-
pollution
equipment.

7. A person shall —

(a) adopt the principle of the 5Rs within 90 days from the commencement of these Regulations ;

(b) have an Emergency Response Plan and pollution response equipment which shall be readily accessible and available to combat pollution hazards in the event of emergency as provided in the Seventh Schedule to these Regulations ;

(c) report any accidental discharge by completing and submitting the incident report form in person or electronically to the Agency within 24 hours of its occurrence ; and

(d) install anti-pollution equipment for detoxification or treatment of effluent and emission emanating from the facility in accordance with environmental best practices.

8.—(1) The Polluter-Pays-Principle shall apply where a person pollutes the environment.

Polluter-Pays-Principle.

(2) Where a person generates or handles waste, such person shall be responsible for collection, treatment, transportation, and final disposal of the waste in line with specified standards and guidelines.

(3) Where an incident results in an adverse impact on the environment, whether socio-economic or health related, the person shall be responsible for—

- (a) the cost of damage assessment, control and clean-up ;
- (b) remediation ; and
- (c) reclamation or restoration.

9.—(1) A person shall implement clean production processes and pollution prevention measures as provided in the Fifth Schedule to these Regulations.

Best practices.

(2) A person shall ensure that damaged and disused equipment including wires, cathode ray tubes (CRTs), metals, motors, transformers, and plastics are processed for recovery under the Extended Producer Responsibility Program.

(3) Waste from EEE assembly or manufacturing with hazardous properties shall be clearly labelled and stored separately from the general waste and contained in storage areas which are chemically resistant before disposal in an environmentally sound manner as provided in the Sixteenth Schedule to these Regulations.

10. Where a person operating in the telecommunications sector deploys electromagnetic field (EMF) in any operation, such a person shall employ best practice as provided in the National Environmental (Standards for Telecommunications Broadcasting Facilities) Regulations, 2011 and the Sixth Schedule to these Regulations.

Best practices in information and communication technology

11. A person shall put in place organisational systems for pollution control as provided in the Seventh Schedule to these Regulations.

Pollution control organisation system.

12.—(1) A person who imports, exports, manufactures, assembles, distributes, or retails various brands of EEE shall subscribe to the Extended Producer Responsibility Program and the Buy Back policy as provided in the Eighth Schedule to these Regulations.

Extended producer responsibility.

(2) A person who imports or distributes EEE traded by or donated to another person shall comply with sub-regulation (1) of this regulation.

(3) A person who manufactures EEE shall —

(a) register with the PRO ;

(b) partner with the Agency ;

(c) ensure environmentally sound management (ESM) of e-waste from cradle to cradle based on market share in line with the EPR Guidance Document for the EEE Sector ; and

(d) pay a recycling fee to the PRO for environmentally sound management of e-waste.

(4) A person who manufactures, imports, distributes or retails EEE, shall take back the end-of-life EEE and setup a collection point or centre.

(5) A person who manufactures EEE shall ensure environmentally sound management of waste electrical and electronic equipment (e-waste) from a collection point or centre to a recycler accredited by the Agency.

(6) An end user of EEE shall return end-of-life EEE to a collection point or centre.

(7) A person who imports new and or used EEE shall pay for Environmentally Sound Management of e-waste.

Prohibition
of
operations
without a
permit.

13.—(1) A permit shall be in writing as set out in the National Environmental (Permitting and Licensing Systems) Regulations, 2009.

(2) A person shall not —

(a) discharge any effluent or oil in any form into water system, public drains, underground injection or land ; or

(b) release hazardous or toxic substances into the water, land, or air beyond permissible limits as provided in the Ninth and Tenth Schedules to these Regulations,

without a permit issued by the Agency.

Management
of oil station
and fuel
dump sites.

14.—(1) A person shall ensure that no contamination arises from leakages of surface or underground oil, fuel or chemical storage tank.

(2) A person shall maintain an impermeable base for any ancillary equipment and provide an appropriate bund wall for any unanticipated discharge or spillage.

(3) A person shall install leak detection equipment for an underground tank and fuel dump.

Community
relations.

15. A person shall have a sustainable community relations program as part of Corporate Social Responsibility (CSR).

16.—(1) The National Environmental Standards which apply to effluent limitations for the sector shall be as provided in the Tenth Schedule of these Regulations.

Effluent
limitation
standard.

(2) An effluent is polluted where —

(a) the concentration of any of its parameters exceeds the permissible limits as provided in the Tenth Schedule to these Regulations ; and

(b) it is discharged without appropriate treatment.

(3) Effluent as described in sub-regulation (2) of this regulation shall be treated to attain the minimum standard provided in the Tenth Schedule to these Regulations before discharge.

17.—(1) A person shall not discharge effluent or oil on land, into a water course, or into a water body except where the —

Restriction
on the
release of
toxic
effluent.

(a) parameters of the effluent do not exceed the permissible limits provided in the Tenth Schedule to these Regulations ; and

(b) Agency is notified prior to the discharge and specific approval is obtained in accordance with the provisions of paragraph (a) of this sub-regulation and other extant relevant Regulations.

(2) Notwithstanding sub-regulation (1) of this regulation, any person who uses influent shall ensure that such concentration is in accordance with the standards provided in the Tenth Schedule to these Regulations.

18. A person who generates effluent shall —

Treatment
of effluent.

(a) carry out effective treatment of effluent during operations and ensure environmentally sound management of sludge as provided in the Ninth Schedule to these Regulations ;

(b) ensure that effluent is not diluted to achieve the standards specified in the Tenth Schedule to these Regulations ;

(c) employ best practice technology to effectively destroy or remove toxic organics and the resulting residues ; and

(d) prepare and submit to the Agency, quarterly summary reports and records of activities on management, treatment and discharge of effluent, sludge, waste water, and sewage.

19.—(1) A person shall ensure that —

Sludge
disposal

(a) sludge discharged on land, into a water course or into a water body does not exceed the permissible limits provided in the Tenth Schedule to these Regulations ;

(b) a valid sludge permit has been obtained from the Agency prior to the discharge of such sludge ; and

(c) the Agency is notified before the discharge, for effective compliance monitoring.

(2) Notwithstanding compliance with these Regulations and all other relevant Regulations pursuant to the treatment and discharge of sludge, a person shall not discharge waste water, sludge, or sewage into a water body that serves the purpose of domestic water use or on land being used for agriculture by adjoining towns, communities, or settlements.

(3) Non-domestic, organic, or agricultural sludge shall be treated as hazardous waste and shall be subject to the provisions of the Harmful Waste (Special Criminal Provisions, etc) Act, 2004.

(4) Hazardous sludge shall be treated and disposed in a secure landfill approved by the Agency.

Emission
standards.

20. A person shall comply with the provisions on air emission standards provided in the Eleventh Schedule to these Regulations.

Priority air
pollutants.

21. A person with sources or potential sources of emission shall —

(a) measure the emission of priority air pollutants emitted ;

(b) develop and implement a plan to control such emission in accordance with the standards provided in the Eleventh Schedule to these Regulations, report the emission data, sources of emissions, and undertake emission reduction measures ; and

(c) ensure that odour detection threshold and the odorous dilution ratio of the working environment or emissions are measured in accordance with the American Society for Testing Materials (ASTM) or any other method as may be prescribed by the Agency.

Burning
of fuels.

22.—(1) A person shall not burn —

(a) light fuel oil containing over 0.5 percent sulphur by weight as fire in an existing source or in a new source ; or

(b) medium fuel oil containing over 1.1 percent sulphur by weight as fire.

(2) Notwithstanding the provisions of sub-regulation (1) of this regulation, heavy fuel oil with no more than 3% sulphur may be burnt at a new or existing facility with new fuel combustion sources or a combination of new and existing fuel combustion sources where —

(a) one or more of such sources operate in a manner that sulphur dioxide is absorbed by coming into contact with the product or with a scrubbing device or other material ; and

(b) the actual total sulphur dioxide emissions from the entire facility is less than the allowable sulphur dioxide emissions.

23.—(1) Where a person discharges gaseous substances, the person shall reduce such to the permissible limits as provided in the Eleventh Schedule to these Regulations.

Treatment technologies for air emission.

(2) The reduction referred to in sub-regulation (1) of this regulation shall be achieved through the use of appropriate pollution abatement technologies which include —

- (a) stack gas scrubbing, carbon adsorption or combustion, for toxic organics ;
- (b) biological filters ; and
- (c) cyclone, or any other appropriate technology.

24. Noise standards shall be regulated in accordance with permissible limits as provided in the Twelfth Schedule to these Regulations and the National Environmental (Noise Standards and Control) Regulations, S.I No.35, 2009.

Noise standards.

25. A person shall collect and analyse effluent samples regularly in accordance with guidelines as may be prescribed by the Agency.

Collection and analysis of samples.

PART III — E-WASTE CONTROL

26.—(1) A person who imports new or used EEE shall —

E-waste handling.

- (a) register with the Agency and the PRO ; and
- (b) pay recycling fees to the PRO for environmentally sound management of e-waste.

(2) Non-functional end-of-life EEE and cathode ray tubes (CRT) shall not be imported into Nigeria.

(3) A person who operates a collection centre shall register with the Agency and the PRO, and shall ensure that e-waste —

- (a) is not stored for longer than six months onsite ;
- (b) is not disposed in a trash receptacle, a dump-site or a landfill ;
- (c) collected for recycling is transported to the designated recycling centre ; and
- (d) is not burnt openly.

(4) A person shall ensure good housekeeping practices.

(5) A person who operates an e-waste collection centre or transports to a recycling plant shall —

- (a) maintain copies of all e-waste manifests or receipts, which shall be made available for review during an inspection visit by officers of the Agency ;
- (b) sign copies of the e-waste manifest ; and
- (c) forward a copy of the e-waste manifest on a quarterly basis to the Agency and PRO.

(6) A person, who generates e-waste, shall separate such e-waste at source from other waste streams.

Registration,
licensing and
approval.

27.—(1) A person who operates an e-waste collection centre and recycling facility shall register with the Agency and the PRO.

(2) The person referred to in sub-regulation (1) of this regulation shall provide information for approval to operate the facility as provided in the Thirteenth Schedule to these Regulations.

E-waste
disposal.

28.—(1) A person shall not discard or dump e-waste except in a designated bin, government approved collection center or point.

(2) A technician, assembler or informal collector of e-waste shall practice environmentally sound management (ESM) of e-waste and shall not —

- (a) burn e-waste ;
- (b) dispose e-waste with domestic and or municipal waste ;
- (c) dispose e-waste at a dump site, land-fill, water body or any other location approved by the Agency ;
- (d) break cathode ray tubes (CRTs) ;
- (e) release chlorofluorocarbons (CFCs) from refrigerators and similar cooling systems ; or
- (f) leach precious metals with acids from printed wire boards (PWBs) or printed circuit boards (PCBs).

Use of
Personal
Protective
Equipment
(PPE).

29. A person who handles e-waste shall ensure that a technician, repairer, informal collector or individual within the facility wears appropriate personal protective equipment (PPE).

Citizen's
obligation.

30. A person shall —

- (a) report any fly tipping and disposal of e-waste in an undesignated location to the Agency or other appropriate authority ; and
- (b) incorporate sound environmental care.

Collection
centre and
recycling
plant
operations.

31.—(1) A person who operates an e-waste recycling plant shall register with the Agency and the PRO, and comply with the requirements provided in the Thirteenth Schedule to these Regulations.

(2) A person who operates an e-waste collection centre or recycling plant shall register with the Agency and the PRO, and comply with the guidelines provided in the Fourteenth Schedule to these Regulations.

Record
keeping.

32.—(1) A person who produces or imports EEE, shall keep records and furnish the Agency and the PRO in writing of the quantity of EEE imported into Nigeria in the preceding year by the 31st of March of every year.

- (2) A person who operates a collection centre or recycling plant shall —
- (a) furnish the Agency and the PRO with information on the quantity of e-waste received and recycled ; and
 - (b) retain such records for a minimum period of 6 years.

PART IV — PERMITS

33.—(1) A person shall not export or transit e-waste without a valid trans-boundary movement permit issued by the Ministry. Transit permit.

(2) An export permit issued under these Regulations shall relate to the specific export transaction and shall not be valid for any subsequent export transaction.

34. An applicant for a permit issued under these Regulations shall satisfy the Agency that the applicant has subscribed to appropriate insurance policies for the applicant's staff and the general public covering the risks which may likely arise, out of the activity for which the permit is required. Insurance policies.

35.—(1) A permit shall be issued by the Agency in accordance with the National Environmental (Permitting & Licensing System) Regulations, S.I.29, 2009, and other relevant Regulations. Issuance of permits.

(2) A person, shall obtain the relevant permit from the Agency which shall be in accordance the provisions set out in the Seventeenth Schedule to these Regulations on —

- (a) e-waste collection centre ;
- (b) e-waste recycling ;
- (c) air quality and toxic substances permit ; and
- (d) sludge disposal permit.

36. A permit shall become effective from the day of issuance and shall expire after 12 months, and maybe renewable yearly. Effective date.

37.—(1) A permit shall not be transferable without the consent of the Agency. Transfer of permit.

(2) Subject to sub-regulation (1) of this regulation, a permit holder shall notify the Agency not later than 60 days before any change in ownership.

(3) The new holder of the permit shall be responsible for completing the requisite process of change in ownership as maybe required by the Agency.

38. The permit application shall be processed by the Agency upon receipt of an application with supporting documents and the payment of registration or permit application fees. Permit application procedure.

Permit terms
and
conditions.

39.—(1) A permit shall be subject to the provisions of these Regulations and any other extant regulations and guidelines issued by the Agency.

(2) A permit holder shall submit plans and specifications for any pollution abatement equipment required to be installed and maintained, to the Agency for approval.

(3) A permit holder shall install and maintain, at the permit holder's expense, the following—

(a) equipment for intermittent or continuous measurement of flow, radiation, or other waste discharged ;

(b) retention tanks or other equipment for reducing the maximum rates of discharge ;

(c) pre-treatment and flow control equipment ;

(d) control sampling manhole where applicable ;

(e) grease traps for removal of oil and grease ;

(f) oil-water separator ; and

(g) air pollution control equipment.

(4) A permit holder shall maintain records of all measurement of flow of industrial or commercial waste, or other waste specified by the Agency.

(5) A permit holder shall be responsible for all materials leaving the facility for further processing or reuse, and shall ensure and demonstrate at all times that any facility which undertakes further processing is licensed, wherever such facility is located globally.

Permit
modifications.

40.—(1) A permit holder proposing to make any change in its discharge permit volume or quality, shall apply for a permit modification at least 90 days before making any changes.

(2) The terms and conditions of a permit may be subject to modifications and changes by the Agency during the validity period.

(3) The Agency shall —

(a) inform the permit holder of any proposed change in the permit at least 30 days prior to the effective date of change ; and

(b) grant the permit holder 30 days to submit written comments on any change in the permit.

Permit
revocation.

41. A permit may be revoked in the public interest.

Proprietary
rights.

42. A permit does not convey any proprietary rights or exclusive privilege.

43.—(1) The permit holder shall furnish the Agency, within a reasonable time, with any information which the Agency may request to determine whether cause exists to modify, revoke and re-issue, terminate the permit or to determine compliance with the permit.

Duty to provide information.

(2) The permit holder shall furnish the Agency, with copies of records required to be kept in respect of the permit.

(3) The Agency may, from time to time, determine other terms and conditions on issuance of permit to give full effect to the provisions of these Regulations.

PART V — INDUSTRIAL EFFLUENT MONITORING AND REPORTING

44.—(1) A permit holder, shall subject to categorical standards, comply with reporting requirements issued by the Agency including incidence report and monthly effluent data sheet.

Reporting requirements.

(2) A permit holder shall —

(a) submit to the Agency, quarterly a description of the volume, nature, concentration and flow of the pollutants in the monthly effluent data sheet required to be reported ;

(b) report sampling analysis performed in the period under review which shall comply with the format provided in the Fifteenth Schedule to these Regulations ;

(c) report all sample results for parameters listed on the effluent limitations and monitoring requirement, on the monthly discharge monitoring report forms provided in the Fifteenth Schedule to these Regulations ; and

(d) install monitoring equipment to facilitate accurate observation, sampling and measurement of the quality of waste discharges as required by the permit, and ensure that the equipment is in good working condition and easily accessible to all authorised officials whenever the need arises.

(3) A permit holder who discharges effluent shall have in place—

(a) flow meters ;

(b) point inspector chambers ;

(c) recording apparatus ; and

(d) sampling test points or points of inspection.

(4) A permit holder who discharges or proposes to discharge effluent to a general sewer or treatment plant for further treatment shall maintain the following—

(a) record of production ;

(b) water consumption and discharge flow record ;

(c) complete monitoring record as specified in these Regulations;

- (d) process monitoring record ;
- (e) incident report ;
- (f) waste handling record ; and
- (g) any other record necessary to demonstrate compliance with these Regulations.

(5) A permit holder shall be required to report to the Agency where the permit holder —

- (a) commits a serious violation ;
- (b) fails to submit completed monthly effluent data sheet ;
- (c) exceeds an effluent limitation for the same pollutant at the same discharge point source by any amount for four out of six consecutive months ; and
- (d) discharges pollutants to the environment, including sludge loadings.

Authorised
signatory.

45.—(1) A permit holder shall sign the report referred to in sub-regulation (5) of regulation 44 and attach a copy of the certificate of analysis from a laboratory accredited by the Agency.

(2) Each report shall be signed by the appropriate officer as prescribed in the Eighteenth Schedule to these Regulations.

Monitoring
records.

46. Monitoring records shall be retained for a minimum period of six years and made available to the Agency whenever requested, and throughout the course of any litigation thereafter.

Confidential
information
and public
access to
records.

47.—(1) Public access to records shall be governed by the Act.

(2) Effluent constituents and characteristics shall not be recognized as confidential information.

PART VI — ENFORCEMENT

Enforcement
notice.

48.—(1) An enforcement notice shall be served where the Agency is of the opinion that a permit holder has contravened or is likely to contravene any condition of a permit.

(2) An enforcement notice shall specify the —

(a) matter constituting the contravention or making it likely that the contravention will arise, as the case may be ;

(b) steps to be taken to remedy the contravention or to remedy the matter making it likely that the contravention will arise, as the case may be ; and

(c) period within which the steps referred to in paragraph (b) of this sub-regulation shall be taken.

(3) The provisions of sub-regulation (2) (a) of this regulation shall apply whether or not the particular manner of operating the facility in question is regulated or contravenes a condition of the permit.

(4) An officer of the Agency may, in the course of his duty at any reasonable time pursuant to these Regulations —

(a) enter and search any premises or facility to take samples or specimen for analysis, and measurements in length or of level of standards to which these Regulations relate ; or

(b) detain and seize for such time as may be necessary any article in relation to which he reasonably believes any provision of these Regulations has been contravened.

49. An enforcement notice may be delivered by hand, registered post, electronic transmission, newspaper publication or pasted at the registered premises facility.

Mode of delivery.

50.—(1) Where a person fails to comply with the enforcement notice within the specified period provided in regulation 48 (2) (c) of these Regulations, a second notice shall be served.

Enforcement notice reminder.

(2) Where a person fails to comply with the second notice issued under sub-regulation (1) of this regulation within the period specified in the notice, the Agency shall issue a suspension notice or any other punitive action as the Agency may deem necessary.

(3) Where a suspension notice is served pursuant to these Regulations, operations of the person shall, on the service of such notice cease.

(4) The Agency may withdraw a suspension notice after verifying that the person has complied with these Regulations.

51.—(1) Notwithstanding the provisions of regulation 50 of these Regulations, the Agency shall upon obtaining an order of court, have the power to enter and seal any facility which contravenes any of the provisions of these Regulations.

Sealing of a facility.

(2) Without prejudice to sub-regulation (1) of this regulation, where the contravention is of imminent danger to the environment and human health, the Agency shall have the power to enter and seal such contravening facility pending any order of court.

52. A facility shall be treated equitably in accordance with extant environmental laws.

Equity

PART VII — OFFENCES AND PENALTIES

Offences.

53.—(1) A person who —

- (a) fails to subscribe to the EPR programme of the Agency ;
- (b) imports non-functional used EEE into Nigeria ; or
- (c) operates e-waste collection or recycling facility without registration with the Agency and the PRO,

commits an offence.

(2) A person who imports, manufactures, assembles, or distributes a new or used EEE without —

- (a) registering with the Agency and the PRO ; or
- (b) payment of recycling fees to the PRO for environmentally sound management (ESM) of e-waste,

commits an offence.

(3) A person who imports cathode ray tube, commits an offence.

(4) A person who manufactures, imports, assembles, trades or distributes EEE without providing e-waste collection receptacle and subscribing to a collection centre for take-back of the e-waste in Nigeria, commits an offence.

(5) A person who —

- (a) discards, throws, or drops e-waste in the environment in non-designated collection centre or point ;
- (b) burns e-waste ;
- (c) disposes e-waste with domestic or municipal waste ;
- (d) breaks cathode ray tubes (CRTs) ;
- (e) releases chlorofluorocarbons (CFCs) from fridges and other cooling system in an environmentally unsound manner ;

- (f) leaches precious metals with acids and other hazardous waste from printed wire boards (PWBs) or printed circuit boards (PCBs);

- (g) transports e-waste to non-designated collection centre or recycling facility ;

- (h) stores e-waste longer than six months onsite ;

- (i) fails to supply requisite information prior to the approval to operate e-waste facility ;

- (j) fails to maintain e-waste facility in an environmentally sound manner;

- (k) fails to comply with the decommissioning conditions of e-waste facility as may be prescribed by the Agency ;

- (l) fails to submit to the Agency within a specified period, information or data on materials received at its facility ; or

- (m) fails to conduct an Environmental Impact Assessment, Environmental Audit and Environmental Management Plan as required by these Regulations, commits an offence.

(6) A person who operates a facility without obtaining the requisite environmental documents pursuant to regulation 4 of these Regulations, commits an offence.

(7) A person who fails to comply with —

- (a) any of the conditions of the permit ; or
- (b) the requirements of an enforcement notice or closure notice under these Regulations,

commits an offence.

(8) A person who submits to the Agency any document which is misleading or provides information which is false, where such information is made —

- (a) pursuant to the compliance with the provisions of these Regulations ;
- (b) for the purpose of obtaining, transferring or altering a permit for a facility ; or
- (c) to intentionally make a false entry on a permit or any record pertaining to a permit,

commits an offence.

(9) A person who fails to —

- (a) treat effluent to the permissible limit before disposal ;
- (b) remediate the environment to the standard prescribed by the Agency in the event of an accidental discharge ; or
- (c) handle effluent in an Environmentally Sound Manner,

commits an offence

(10) A person who —

(a) obstructs enforcement officers from performing their normal course of duty ;

(b) dismisses, suspends, sanctions or imposes a penalty on his employees who report to the Agency or any relevant government authority any contravention to these Regulations,

commits an offence.

(11) A person who fails to ensure the use of personal protective equipment by personnel in the facility in the course of their operational activities, commits an offence.

(12) A person who fails to maintain adequate records, file quarterly and annual reports of all discharges to the Agency, commits an offence.

(13) A person who fails to —

(a) report release of effluent and sludge into the environment in excess of permissible limit as prescribed in these Regulations ; or

(b) take reasonable measures to prevent, reduce or remedy the adverse effect of effluent, sludge and emissions released into the environment, commits an offence.

Penalties.

54. A person who commits an offence under these Regulations shall upon conviction be liable —

(a) in the case of a body corporate, to a fine of not less than ₦2,000,000.00, and an additional fine of ₦50,000.00 for everyday the offence subsists ; or

(b) in the case of an individual, to a fine of not less than ₦200,000.00 or a term of imprisonment of not less than six months or to both and an additional fine of ₦20,000.00 for every day the offence subsists.

PART VIII — MISCELLANEOUS

Recognition
for
environmental
leadership

55. A person who demonstrates environmental leadership, adopts environmentally responsible practices, demonstrates commitment to environmental quality and maintains exemplary environmental compliance records shall be recognized by the Agency.

Revocation.

56.—(1) The National Environmental (Electrical and Electronic Sector) Regulations, 2011 is revoked.

(2) The revocation of the Regulations specified in sub-regulation (1) of this regulation shall not affect anything done or purported to be done under or pursuant to that regulation.

Interpretation.

57. In these Regulations, unless the context otherwise requires —

“5Rs” means Reduce, Repair, Reuse, Recover, and Recycle ;

“Act” means the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007 (as amended) ;

“Agency” means the National Environmental Standards and Regulations Enforcement Agency (NESREA) ;

“air emission” means any emission or entrainment process emanating from a point, non-point or mobile source resulting in air pollution ;

“air pollution” means any change in composition of the air caused by smoke, soot, dust, including fly-ash, cinders, solid particle of any kind, gases, fumes, aerosols, and odorous substances ;

“ancillary equipment” means pieces of equipment including batteries, memory devices, chargers used with EEE listed in these Regulations ;

“appropriate authority” means NESREA or other relevant environmental agency ;

“assembler” means a person or group of persons who bring, fix together separate parts of EEE ;

"body corporate" means an artificial person with perpetual succession and common seal, who may sue and be sued in its corporate name ;

"bund wall" means a constructed retaining wall around storage where potentially polluting substances are handled, processed or stored, for the purposes of containing any unintended escape of material from that area until such time as a remedial action can be taken ;

"cathode ray tube (CRT)" means a vacuum tube containing an electron gun and a fluorescent screen, with internal or external means to accelerate and deflect the electron beam, used to create images in the form of light emitted from the fluorescent screen, the image may represent electrical waveforms, pictures or radar targets ;

"circular economy" means an economic system aimed at eliminating waste and the promotion of continual use of resources ;

"collection centre or point" means a centre or point where e-waste is collected and stored temporarily for the purpose of recycling ;

"comparative model" means equipment which is modern ;

"cooling appliance" means—

- (a) large cooling appliance ;
- (b) refrigerators ;
- (c) freezers ; and
- (d) other large appliances for refrigeration, conservation and storage of food,

that fall within category 1 of the First Schedule to these Regulations;

"cradle-to-cradle" means an approach to the design of products and systems that models human industry on nature ;

"designated collection centre" means any establishment or undertaking carrying out collection operations approved by the Ministry ;

"development control" means the office responsible for development activities of a State or Area ;

"effluent" means waste water treated or untreated that flows out of a treatment plant, sewer, or industrial outfall resulting from the commercial or industrial use of water, generally referring to waste discharged into surface water ;

"electrical electronic equipment (EEE)" means —

(a) equipment which is dependent on electric currents, voltage or electromagnetic fields in order to function properly and equipment for the generation, transfer and measurement of such currents and fields falling under the categories set out in the Second Schedule to these Regulations and designed for use with a voltage rating not exceeding 1,000 volts for alternating current and 1,500 volts for direct current ;

(b) equipment for the generation, transfer, distribution and measurement of these currents and fields, including the components necessary for the cooling, heating, protection, etc., of the electrical or electronic components ;

“electrical and electronic sector” means an area of the economy where persons are involved in —

(a) manufacturing, assembling, processing or recycling any equipment contained in the categories of EEE listed in these Regulations ; and

(b) operations in telecommunication, broadcasting, power, distribution, transmission and generation facilities ;

“electromagnetic fields (EMF)” mean invisible lines of force emitted by and surrounding any electrical device e.g. power lines and electrical equipment ;

“end-of-life” means EEE which has come to the end of its usefulness ;

“enforcement” means actions to obtain compliance with environmental laws, rules, regulations or agreements or obtain penalties for violations ;

“enforcement officer” means —

(a) an officer of NESREA authorised in writing by NESREA to act as an enforcement officer for the purposes of these Regulations ; and

(b) a person appointed by the Minister authorised in writing by the Minister to act as an enforcement officer ;

“environment” means the sum of all external conditions affecting the life, development and survival of an organism ;

“Environmental Audit (EA)” means —

(a) an independent verification of current status of a party’s compliance with applicable legislative requirement ; or

(b) an independent evaluation of a party’s environmental compliance, policies, practices and control ;

“Environmental Impact Assessment (EIA)” means the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of development proposals prior to major decisions being taken and commitments made ;

“Environmental Impact Statement (EIS)” means a document issued by the Ministry after duly completed EIA process ;

“Environmental Management Plan” means the process that a person will follow to maximize compliance and minimize harm to the environment, which also helps an organisation map its progress towards achieving continual improvements ;

“Environmentally Sound Manner (ESM)” means best management practices for electronic recyclers that can be used in conjunction with recycling industry operating standards to ensure compliance with all applicable regulations and environmental and worker protection ;

“e-waste” means waste electrical electronic equipment (WEEE) including old, end-of-life (EoL) or discarded electrical or electronic appliances using electricity ;

“EEE facility” means a facility involved in manufacturing, processing, installing, deploying, or recycling any of the following —

- (a) electrical electronics ;
- (b) refrigerators and air-conditioning appliances ;
- (c) electric bulbs, lamps, accessories and fittings ;
- (d) electrical power control and distribution equipment ;
- (e) electrical wire and cable ; and
- (f) telecommunication equipment and base station.

“facility” means any electrical, electronics assembly, installation, manufacturing, e-waste collection centre, recycling centre, refurbishing outfit, or e-waste treatment plant and processing outfit ;

“hazardous waste” means waste which may be in the form of solids, liquids or sludge with properties that make it dangerous or capable of having a harmful effect on human, animal, and plant health or the environment, with one or more of the following characteristics, flammable, corrosive, toxic, or reactive, or consisting of substances defined as hazardous in a lists of materials deemed hazardous published by the Agency ;

“imminent danger” means an immediate threat that is believed may likely cause death or serious physical harm to human health, the environment or both within a short time before likely occurrence could be investigated ;

“importer” means a person or body corporate, in the ordinary course of conduct of a trade, occupation or profession, imports EEE ;

“informal collector” means a person who searches and picks waste that can be reused or recycled and does not belong to a formal organisation ;

“life cycle” means a course of events that brings a new product into existence and follows its growth into a mature product and eventual critical mass and decline ;

“Minister” means the Minister responsible for environment ;

“Ministry” means the Ministry responsible for environment ;

“modification” means a change in any activity that may cause an adverse effect if not properly mitigated and includes, but not limited to, the expansion of the same process, addition of product lines and replacement of equipment with different technology other than that presently in use ;

“permit” means an official document, authorisation, license, or equivalent control document issued by the Agency to implement the requirements of these Regulations or other applicable laws and Regulations to discharge effluent, or other regulated substance, especially for a limited period of time ;

“permit holder” means a person, group of individuals or body corporate, organisation that has been empowered by the permit to discharge effluent ;

“person” means a natural or juristic person ;

"Polluter-Pays-Principle" means a principle which seeks to hold a polluter responsible for the cost of remedying the injuries caused by pollution it has generated ;

"producer" means the brand owner, manufacturer, franchisee, assembler, distributor, retailer or first importer of the product who sells, offers for sale, or distributes the product, it also includes the local manufacturer or importer of new and used electrical and electronic equipment (EEE) to be placed on the national market at first invoice by sale or donation ;

"Producer Responsibility Organisation (PRO)" is an entity setup in collective Extended Producer Responsibility (EPR) schemes to implement the EPR principle on behalf of all the participating producers ;

"radiation" means energy propagated in space in the form of light, heat, x-rays, or nuclear particles ;

"right-of-way, way leave or easements" mean access ways created for facility, transmission or location ;

"recovery" means any operation leading to the creation of value of material or to convert into resources ;

"recycling" means a recovery and treatment operation by which e-waste is reprocessed into useful products, materials or substances, whether for the original or other purposes ;

"reuse" means any operation by which e-waste or components thereof are used for the same purpose for which they were conceived, including the continued use of the equipment or components thereof which are returned to collection points, distributors, recyclers or manufacturers ;

"sludge" means liquid or solid sediments, other residue from a municipal sewage collection and treatment system, and liquid or solid and other septic from septic or holding tank pumping from commercial, industrial or residual establishments ;

"standards" means a consensus document or guide with limits ;

"technician" means a person in the field of technology who is proficient in the relevant skill and technique or in the practical application of a science ;

"telephone device" means any terminal device capable of being used for transmitting or receiving any communications over a network designed for the transmission of voice frequency communication or data ;

"used EEE" means secondhand EEE that is functional and meant for reuse ;

"water body" means underground water, ground water, river, stream, canal, reservoir, well, lake, lagoon or ocean etc ;

“*water course*” means any natural or artificial channel, pipe or conduit, excluding the sewerage system, carrying, or that may carry, and discharging water directly or indirectly into a water body ;

“*writing*” includes text that is —

- (a) transmitted by electronic means;
- (b) received in legible form; and
- (c) capable of being used for subsequent reference ; and\

“*year*” means a calendar year commencing on 1st January.

58. These Regulations may be cited as the National Environmental (Electrical and Electronic Sector) Regulations, 2022. Citation.

CATEGORIES OF EEE COVERED BY THESE REGULATIONS

1. Large household appliances (white goods) —

- (a) large cooling appliance ;
- (b) refrigerator ;
- (c) freezer ;
- (d) other large refrigerating, food conservation, and storage appliance ;
- (e) washing machine ;
- (f) water heater ;
- (g) clothes dryers ;
- (h) dish washing machine ;
- (i) electric cooking utensils ;
- (j) electric stove ;
- (k) electric hot plate ;
- (l) microwave oven ;
- (m) other large food processing and cooking appliance ;
- (n) electric heating appliance ;
- (o) electric radiator ;
- (p) other large appliance for heating rooms, beds, seating furniture ;
- (q) electric fan ;
- (r) air conditioning appliance ; and
- (s) other fanning, exhaust ventilation and conditioning equipment.

2. Small household appliance (white goods) —

- (a) vacuum cleaner ;
- (b) sweeper ;
- (c) other cleaning appliance ;
- (d) appliances used for sewing, knitting, weaving and other textile processor ;
- (e) electric iron and other appliance for ironing, mangling and other clothes care appliance ;
- (f) toaster ;
- (g) fryer ;
- (h) grinder, coffee machine and equipment for opening or sealing containers or packages ;
- (i) electric knife ;
- (j) appliance for hair-cutting, hair drying, tooth brushing, shaving, massage and other body care appliance ;
- (k) clock, watch and equipment for the purpose of measuring, indicating or registering time ; and
- (l) weighing scale.

3. ICT and telecommunications equipment (grey goods) —

- (a) centralised data processing unit ;
- (b) mainframe computer ;
- (c) mini computer ;
- (d) personal computer ;
- (e) laptop computer ;
- (f) notebook computer ;
- (g) notepad computer ;
- (h) printer ;
- (i) copying equipment ;
- (j) electrical and electronic typewriter ;
- (k) pocket and desk calculator ;
- (l) other products and electronic equipment for the collection, storage, processing, presentation or communication of information ;
- (m) user terminal and system ;
- (n) facsimile ;
- (o) telex ;
- (p) telephone ;
- (q) pay telephone ;
- (r) cordless telephone ;
- (s) cellular telephone ;
- (t) answering system ;
- (u) other products or telecommunications equipment for transmitting sound images or information ;
- (v) POS machine ;
- (w) ATM machine ; and
- (x) PV panel.

4. Entertainment and consumer equipment (brown goods) —

- (a) radio set ;
- (b) television set ;
- (c) video camera ;
- (d) video recorder ;
- (e) hi-fi recorder ;
- (f) audio amplifier ;
- (g) musical instrument ; and
- (h) other telecommunications products or equipment used for the purposes of recording, reproducing sound or images, including signals or other technologies for the distribution of sound and image other than by telecommunications.

5. Lighting equipment —

- (a) luminaries for fluorescent lamps other than of luminaries in household ;
- (b) straight fluorescent lamp ;
- (c) compact fluorescent lamp ;
- (d) high intensity discharge lamp, including pressure sodium lamp and metal halide lamp ;
- (e) low pressure sodium lamp ; and
- (f) other lighting or equipment for the purpose of lightening or controlling light other than filament bulb.

6. Electrical and electronic tools (other than large-scale stationary industrial tools) —

- (a) drill ;
- (b) saw ;
- (c) sewing machines ;
- (d) equipment used for the process of turning, milling, sanding, grinding, sawing, cutting, shearing, drilling, making holes, punching, folding, bending or similar material including metal wood ;
- (e) tool for riveting, nailing or screwing or removing rivet, including nail, screw or similar uses ;
- (f) tool for welding, soldering or similar use ;
- (g) equipment for spraying, spreading, dispersing or other treatment of liquid or gaseous substance ; and
- (h) tools for mowing or other gardening activity.

7. Toys, leisure, betting and sporting equipment —

- (a) electric train or car racing set ;
- (b) hand-held video game console ;
- (c) video game ;
- (d) computers for biking, diving, running and rowing ;
- (e) sport equipment with electric or electronic component ; and
- (g) coin slot machine.

8. Medical devices (other than all implanted and infected products) —

- (a) radiotherapy equipment ;
- (b) cardiology equipment ;
- (c) dialysis equipment ;
- (d) pulmonary ventilator or nuclear medicine equipment ;
- (e) laboratory equipment for in-vitro diagnosis ;
- (f) analyser ;
- (g) fertilization tests equipment ; and
- (h) other appliances for detecting, preventing, monitoring, treating, alleviating illness, injury or disability.

9. Monitoring and control instruments —

- (a) smoke detector ;
- (b) hearing regulator ;
- (c) thermostat ; and
- (d) measuring, weighing or adjusting appliance for household or laboratory equipment, other monitoring and control instruments used in industrial installations.

10. Automatic dispensers —

- (a) automatic dispenser for hot drink ;
- (b) automatic dispenser for hot or cold bottles or cans ;
- (c) automatic dispenser for solid products ;
- (d) automatic dispenser for money ; and
- (e) automatic delivery appliance.

SECOND SCHEDULE [regulation 3 (4)]

REQUIREMENTS AND GUIDELINES FOR IMPORTATION
OF USED EEE INTO NIGERIA

1. BACKGROUND

(1) Used Electrical Electronic Equipment (used EEE) from developed countries have become highly sought-after commodities in Nigeria in recent years, the attempt to bridge the “digital divide” and make information communication technology (ICT) equipment easily available at affordable prices has led to a massive flow of obsolete Waste Electrical and Electronic Equipment (WEEE) to the Nigeria.

(2) Quite often imported used EEE are mixed up with e-waste, with majority of these equipment containing hazardous substances and heavy metals including lead, mercury, cadmium and organics such as polychlorinated biphenyls and brominated flame retardants, which could have adverse impact on the environment and human health, these equipment usually end up as waste and where improperly managed through crude methods such as open burning to recover copper metal, results in pollution which is detrimental to the environment and human health.

(3) Shipments of used EEE shall be regulated by the Agency.

(4) A person who imports used EEE into Nigeria shall ensure that —

(a) only functional used EEE which meets the requirements as contained in these Regulations, and the Guidance Documents for the electrical and electronic sector shall be imported ; and

(b) any other shipment other than as provided in sub-paragraph (a) of this paragraph upon importation, shall be classified as “waste” and treated as a prohibited shipment by the Agency.

(5) This document highlights some of the rules guiding shipment of used EEE into Nigeria and it is intended to guide a person to differentiate between used EEE and e-waste.

2. GUIDING PRINCIPLES

This guide is based on the following extant laws and principles —

(a) the Harmful Waste (Special Criminal Provisions, etc.) Act CAP H 1 LFN 2004 ;

(b) exporting countries shall enforce their national laws and relevant regional and international conventions on trans-boundary movement of hazardous waste ;

(c) importation of new EEE and functional used EEE into Nigeria is permissible ;

(d) importation of e-waste into Nigeria is prohibited ;

(e) an importer of used EEE shall register with the Agency and the Producer Responsibility Organisation (PRO) in accordance with the Guidance Document for the electrical and electronic sector ;

(f) e-waste imported into Nigeria shall be sent back to the port of origin ;

(g) any vessel used to import used EEE mixed with e-waste shall be forfeited to Nigeria ;

(h) administrative charges and punitive fines shall be imposed on the carrier of e-waste or used EEE mixed with e-waste ;

(i) any used EEE imported into Nigeria shall —

(i) be of comparative models of equipment in use,

(ii) be fit for the purpose it was originally designed for,

(iii) be fully functional as originally intended,

(iv) not exhibit any waste characteristics,

(v) not be scrap, and

(vi) be properly packaged for protection during transport, loading and unloading ;

(j) the Agency shall issue clearance after satisfactory inspection confirming compliance with all applicable laws and Regulations of every consignment prior to the discharge of the consignment at a port in Nigeria ; and

(k) a person who imports new EEE or used EEE shall bear the cost of inspection and testing of the consignment as prescribed by the Agency and the payment of administrative charges and all applicable fees or levies to the PRO to cover the cost of environmentally sound management of e-waste.

3. REQUIREMENTS FOR IMPORTATION OF USED EEE INTO NIGERIA

(a) a person who imports used EEE shall provide —

(i) a copy of the sales invoice and or evidence of transfer of ownership of the used EEE certifying the direct re-use and full functionality of the equipment on the container or truck,

(ii) a declaration or attestation by the cargo loader that all the equipment in the consignment are used EEE, and

(iii) evidence of proper packaging of all equipment in the consignment to prevent damage during transportation, loading and unloading ;

(b) A person who imports used EEE or his representative shall, prior to any transboundary movement of used EEE, provide the Agency and any other relevant Government agency proof of compliance with these guidelines.

(c) Where the person fails to comply with the provisions of these Guidelines, the Agency shall impose appropriate sanctions against such a person in accordance with the provisions of these Regulations and the Act.

(d) A carrier of used EEE including shipping container, lorry or truck shall be have —

- (i) cargo movement requirement (CMR) document,
- (ii) proof of evaluation and testing and certificate containing testing information on each item,
- (iii) declaration of liability by the importer,
- (iv) copy of import clearance, and
- (v) evidence of registration with the PRO.

4. PROHIBITED ITEMS

Used EEE shall be classifies as waste where —

- (a) the product is incomplete with some missing essential parts ;
- (b) functionality or safety is impaired ;
- (c) the appearance is generally worn or damaged ;
- (d) the packaging is insufficient ;
- (e) ozone depleting substances (ODS) are contained in its constituent parts ;
- (f) it is destined for disposal or recycling instead of re-use ; and
- (g) it is old, outdated or destined to be cannibalized to gain spare parts.

THIRD SCHEDULE [regulation 4(1)(e)]

1. GUIDELINE FOR PREPARING ENVIRONMENTAL MANAGEMENT PLAN (EMP)

(1) An Environmental Management Plan (EMP) shall describe procedures to be taken by a person to maximize compliance while minimizing harm to the environment.

(2) The plan shall enable a person outline the progress toward achieving continual improvements.

(3) Environmental management plans shall contain the following elements —

- (a) policy ;
- (b) planning ;
- (c) implementation and operation ;
- (d) checking and corrective actions with timeline ; and
- (e) management review and commitment.

2. POLICY

(1) Policy statements shall anchor a person on a set of core beliefs.

(2) The environmental guiding principles shall enable a person focus on the same objective and provide an opportunity for other persons to understand the operation of the person.

(3) The policy shall be focused, concise, and easy to read and shall address —

- (a) compliance with extant laws and voluntary commitments ;
- (b) minimising waste and preventing pollution ;
- (c) continual improvement in environmental performance, including areas not subject to regulations ; and
- (d) sharing information on environmental performance with the community.

3. PLANNING

(1) Planning shall define the person's environmental footprints and set goals.

(2) Goals and objectives shall be focused on maximising positive impacts on the environment.

(3) The following elements shall be considered during evaluation —

- (a) impact on the environment through the person's activities, products and services, and the associated legal requirements in the protection of the environment ;

- (b) legal requirements associated with protecting the environment in connection with the person's activities, products, and services ; and
- (c) meaningful and focused environmental objectives and targets.

4. IMPLEMENTATION AND OPERATION

(1) Implementation and operation shall define the activities that the person shall perform to meet environmental objectives and targets.

(2) The Implementation and operation section shall identify the responsibility of each person's activity, ensure completion and set targets for each of the identified activities, and specify employee training, communication and relevant outreach activities sensitization to ensure successful implementation of the plan.

5. CHECKING AND CORRECTIVE ACTION

(1) The EMP shall describe the process that shall be followed to verify proper implementation and how issues will be resolved in a timely manner.

(2) Routine evaluation and continual improvement to the process is necessary to ensure that the plan successfully leads towards the completion of environmental objectives and targets.

6. MANAGEMENT REVIEW AND COMMITMENT TO IMPROVEMENT

Routine management review and support is a necessary and meaningful tool to identify the routine management evaluations that shall be conducted to ensure that the plan is appropriately implemented to meet its environmental objectives.

FOURTH SCHEDULE [regulation 7(b)]

GUIDE TEMPLATE FOR EMERGENCY PROCEDURES
EEE FACILITY*Step 1 — Establish a planning team*

There shall be a person responsible for developing the emergency management plan to do —

- (a) form the team to include the local community likely to be affected ;
- (b) establish authority ;
- (c) issue a Mission Statement in english and in appropriate local language ; and
- (d) establish a schedule and a budget.

Step 2 — Analyze capabilities and hazards

This step entails gathering information about current capabilities and about possible hazards and emergencies, and then conducting a vulnerability analysis to determine the facility's capabilities for handling emergencies to include —

- (a) assessing the current situation of the facility ;
- (b) meeting with outside group ;
- (c) identifying codes and regulations ;
- (d) identifying critical products, services and operations ;
- (e) identifying internal resources and capabilities ;
- (f) identifying external resources ;
- (g) performing an insurance review ;
- (h) conducting a vulnerability analysis ;
- (i) listing potential emergencies ;
- (j) estimating probability ;
- (k) assessing the potential human impact ;
- (l) assessing the potential business impact ;
- (m) assessing the potential property impact ;
- (n) assessing internal and external resources ; and
- (o) evaluating the capabilities and hazards.

Step 3 — Develop the plan

Emergency planning shall become part of the corporate culture by finding opportunities to build awareness to educate and train personnel, to test procedures, to involve management, departments and the community in the planning process, and to make emergency management part of what personnel do on a day-to-day basis by —

- (a) plan components ; and
- (b) the development process.

Step 4 — Plan implementation

Implementation of the plan shall be by acting on recommendations made during the vulnerability analysis, integrating the plan into company operations, training employees and evaluating the plan by —

- (a) integrating the plan into a facility or person's operations ;
- (b) conducting training, drills and exercises ; and
- (c) activating the plan when necessary.

FIFTH SCHEDULE

[regulation 9 (1)]

BEST PRACTICES

For the purpose of these Regulations, best practice shall be —

- (a) developing a data base for all effluent generated ;
- (b) installation of —
 - (i) anti-pollution equipment for the detoxification or treatment of effluent and sludge,
 - (ii) efficient Effluent Treatment Plant (ETP) in accordance with Best Practicable Technology (BPT) and environmental practices, and
 - (iii) containment equipment for spills against accidental discharge ;
- (c) adoption of in-plant waste and energy reduction, and pollution prevention strategies ;
- (d) reporting an unusual or accidental discharge of waste from a facility to the nearest office of the Agency within 24 hours of the discharge ;
- (e) providing a buffer zone between a new EEE facility and the nearest human settlement in accordance with the EIS and registration with the Agency ;
- (f) construction of appropriate bund walls around tank farms for containment against accidental discharges, which shall be thick enough to contain materials or substances that may be spilled, impervious to such materials or substances, and shall not require instrumentation or human intervention to be effective in the event of any unanticipated discharge or spillage ;
- (g) providing adequate protection, for example shield, for ionizing radiations emanating from manufacturing processes ; and
- (h) adherence to the ICNIRP guidelines in tables 1, 2 and 3 as contained in the Sixth Schedule to these Regulations by facilities in the telecommunication industry and power sector.

BEST PRACTICE IN A FACILITIES USING ELECTROMAGNETIC FIELDS

A facility whose operations involves the use of electromagnetic fields (EMF) shall consider —

- (a) aesthetics, environmental and public sensibilities ;
- (b) nearness to kindergartens, schools and playgrounds ;
- (c) local restrictions to avoid EMF interference especially in hospitals or any other area designated by an appropriate authority ;
- (d) open communication and discussion between the operator, local council and the public during the planning stages for a new antenna to create public awareness and greater acceptance of the new facility ; and
- (e) a buffer zone comprising a minimum distance of 20 metres around the mast and appropriate shrubs planted to reduce the visual impacts.

TABLE 1

ICNIRP (1998) GUIDELINE FOR LIMITING EXPOSURE TO TIME
VARYING ELECTRIC, MAGNETIC AND ELECTROMAGNETIC FIELDS UP
TO 300GHz REFERENCE LEVELS FOR PUBLIC AND OCCUPATIONAL
EXPOSURE (ICNIRP/ITU-T K.52)

<i>Type of Exposure</i>	<i>Frequency Range</i>	<i>Electric field Strength (V/m)</i>	<i>Magnetic Field Strength</i>	<i>Equivalent Plane Wave Power Density, Seq (w/m²)</i>
Occupational Exposure	Up to 1 Hz		2x10 ¹⁰	
	1-8 Hz	20 000	2x10 ⁵ /f ²	
	8-25 Hz	20 000	2x10 ⁴ /f	
	0.025-0.82 kHz	500/f	20/f	
	0.82-65 kHz	610	24.4	
	0.065-1 MHz	610	1.6/f	
	1-10 MHz	610/f	1.6/f	
	10-400 MHz	61	0.16	10
	400-2000 MHz	3f ^{1/2}	0.008f ^{1/2}	f/40
	2-300 GHz	137	0.36	50
General Public	Up to 1 Hz		2 x10 ⁻⁴	
	1-8 Hz	10 000	2x10 ⁴ 1f ²	
	8-25 Hz	10 000	5 000//	
	0.025-0.8 kHz	250/f	4/f	

	0.8-3 kHz	$250/f$	5	
	3-150 kHz	87	5	
	0.15-1 MHz	87	$0.73/f$	
	1-10 MHz	$87/f^{1/2}$	$0.73/f$	
	10-400 MHz	28	0.073	7
	400-2000 MHz	$1.375f^{1/2}$	$0.0037f^{1/2}$	f1200
	2-300 GHz	61	0,16	10

TABLE 2

BASIC LIMITS FOR PUBLIC AND OCCUPATIONAL EXPOSURE
(ICNIRP)/ITU-T K.52

The exposure limits for the general public are five (5) times lower than that for occupational workers because such workers are normally persons who may have been trained to be aware of RF hazards and have been medically assessed to be fit for work in RF fields.

Type of Exposure	Frequency Range	Current density for head trunk (mA/m ²)	Whole body average SAR	Localized SAR (head and trunk) (W/kg)	Localized SAR (limbs) (W/kg)
Occupational Exposure	Up to 1 Hz	40			
	1-4 Hz	40/f			
	4 Hz-1 kHz	10			
	1-100 kHz	f/100			
	100 kHz- 10 MHz	f/100	0.4	10	20
	10 MHz- 10 GHz		0.4	10	20
General Public	Up to 1 Hz	8			
	1-4 Hz	8/f			
	4 Hz-1 kHz	2			
	1-100 kHz	f/500			
	100 kHz- 10 MHz	f/500	0.08	2	4
	10 MHz- 10 GHz		0.08	2	4

Note :

f is the frequency in Hertz.

Due to electrical inhomogeneity of the body, current densities shall be averaged over a cross-section of 1 cm² perpendicular to the current direction.

All SAR values are to be measured in a period of 6-minutes.

For a localized SAR averaging mass in any 10g of contiguous tissue, the maximum SAR obtained shall be the value used for the estimation of exposure.

THIRD SCHEDULE [regulation 4(1)(e)]

1. GUIDELINE FOR PREPARING ENVIRONMENTAL MANAGEMENT PLAN (EMP)

(1) An Environmental Management Plan (EMP) shall describe procedures to be taken by a person to maximize compliance while minimizing harm to the environment.

(2) The plan shall enable a person outline the progress toward achieving continual improvements.

(3) Environmental management plans shall contain the following elements —

- (a) policy ;
- (b) planning ;
- (c) implementation and operation ;
- (d) checking and corrective actions with timeline ; and
- (e) management review and commitment.

2. POLICY

(1) Policy statements shall anchor a person on a set of core beliefs.

(2) The environmental guiding principles shall enable a person focus on the same objective and provide an opportunity for other persons to understand the operation of the person.

(3) The policy shall be focused, concise, and easy to read and shall address —

- (a) compliance with extant laws and voluntary commitments ;
- (b) minimising waste and preventing pollution ;
- (c) continual improvement in environmental performance, including areas not subject to regulations ; and
- (d) sharing information on environmental performance with the community.

3. PLANNING

(1) Planning shall define the person's environmental footprints and set goals.

(2) Goals and objectives shall be focused on maximising positive impacts on the environment.

(3) The following elements shall be considered during evaluation —

- (a) impact on the environment through the person's activities, products and services, and the associated legal requirements in the protection of the environment ;

(b) legal requirements associated with protecting the environment in connection with the person's activities, products, and services ; and

(c) meaningful and focused environmental objectives and targets.

4. IMPLEMENTATION AND OPERATION

(1) Implementation and operation shall define the activities that the person shall perform to meet environmental objectives and targets.

(2) The Implementation and operation section shall identify the responsibility of each person's activity, ensure completion and set targets for each of the identified activities, and specify employee training, communication and relevant outreach activities sensitization to ensure successful implementation of the plan.

5. CHECKING AND CORRECTIVE ACTION

(1) The EMP shall describe the process that shall be followed to verify proper implementation and how issues will be resolved in a timely manner.

(2) Routine evaluation and continual improvement to the process is necessary to ensure that the plan successfully leads towards the completion of environmental objectives and targets.

6. MANAGEMENT REVIEW AND COMMITMENT TO IMPROVEMENT

Routine management review and support is a necessary and meaningful tool to identify the routine management evaluations that shall be conducted to ensure that the plan is appropriately implemented to meet its environmental objectives.

FOURTH SCHEDULE [regulation 7(b)]

GUIDE TEMPLATE FOR EMERGENCY PROCEDURES
EEE FACILITY*Step 1 — Establish a planning team*

There shall be a person responsible for developing the emergency management plan to do —

- (a) form the team to include the local community likely to be affected ;
- (b) establish authority ;
- (c) issue a Mission Statement in english and in appropriate local language ; and
- (d) establish a schedule and a budget.

Step 2 — Analyze capabilities and hazards

This step entails gathering information about current capabilities and about possible hazards and emergencies, and then conducting a vulnerability analysis to determine the facility's capabilities for handling emergencies to include —

- (a) assessing the current situation of the facility ;
- (b) meeting with outside group ;
- (c) identifying codes and regulations ;
- (d) identifying critical products, services and operations ;
- (e) identifying internal resources and capabilities ;
- (f) identifying external resources ;
- (g) performing an insurance review ;
- (h) conducting a vulnerability analysis ;
- (i) listing potential emergencies ;
- (j) estimating probability ;
- (k) assessing the potential human impact ;
- (l) assessing the potential business impact ;
- (m) assessing the potential property impact ;
- (n) assessing internal and external resources ; and
- (o) evaluating the capabilities and hazards.

Step 3 — Develop the plan

Emergency planning shall become part of the corporate culture by finding opportunities to build awareness to educate and train personnel, to test procedures, to involve management, departments and the community in the planning process, and to make emergency management part of what personnel do on a day-to-day basis by —

- (a) plan components ; and
- (b) the development process.

Step 4 — Plan implementation

Implementation of the plan shall be by acting on recommendations made during the vulnerability analysis, integrating the plan into company operations, training employees and evaluating the plan by —

- (a) integrating the plan into a facility or person's operations ;
- (b) conducting training, drills and exercises ; and
- (c) activating the plan when necessary.

FIFTH SCHEDULE

[regulation 9 (1)]

BEST PRACTICES

For the purpose of these Regulations, best practice shall be —

- (a) developing a data base for all effluent generated ;
- (b) installation of —
 - (i) anti-pollution equipment for the detoxification or treatment of effluent and sludge,
 - (ii) efficient Effluent Treatment Plant (ETP) in accordance with Best Practicable Technology (BPT) and environmental practices, and
 - (iii) containment equipment for spills against accidental discharge ;
- (c) adoption of in-plant waste and energy reduction, and pollution prevention strategies ;
- (d) reporting an unusual or accidental discharge of waste from a facility to the nearest office of the Agency within 24 hours of the discharge ;
- (e) providing a buffer zone between a new EEE facility and the nearest human settlement in accordance with the EIS and registration with the Agency ;
- (f) construction of appropriate bund walls around tank farms for containment against accidental discharges, which shall be thick enough to contain materials or substances that may be spilled, impervious to such materials or substances, and shall not require instrumentation or human intervention to be effective in the event of any unanticipated discharge or spillage ;
- (g) providing adequate protection, for example shield, for ionizing radiations emanating from manufacturing processes ; and
- (h) adherence to the ICNIRP guidelines in tables 1, 2 and 3 as contained in the Sixth Schedule to these Regulations by facilities in the telecommunication industry and power sector.

BEST PRACTICE IN A FACILITIES USING ELECTROMAGNETIC FIELDS

A facility whose operations involves the use of electromagnetic fields (EMF) shall consider —

- (a) aesthetics, environmental and public sensibilities ;
- (b) nearness to kindergartens, schools and playgrounds ;
- (c) local restrictions to avoid EMF interference especially in hospitals or any other area designated by an appropriate authority ;
- (d) open communication and discussion between the operator, local council and the public during the planning stages for a new antenna to create public awareness and greater acceptance of the new facility ; and
- (e) a buffer zone comprising a minimum distance of 20 metres around the mast and appropriate shrubs planted to reduce the visual impacts.

TABLE 1

ICNIRP (1998) GUIDELINE FOR LIMITING EXPOSURE TO TIME
VARYING ELECTRIC, MAGNETIC AND ELECTROMAGNETIC FIELDS UP
TO 300GHz REFERENCE LEVELS FOR PUBLIC AND OCCUPATIONAL
EXPOSURE (ICNIRP/ITU-T K.52)

Type of Exposure	Frequency Range	Electric field Strength (V/m)	Magnetic Field Strength	Equivalent Plane Wave Power Density, Seq (w/m ²)
Occupational Exposure	Up to 1 Hz		2x10 ⁻⁴	
	1-8 Hz	20 000	2x10 ⁻⁵ /f ²	
	8-25 Hz	20 000	2x10 ⁻⁴ /f	
	0.025-0.82 kHz	500/f	20/f	
	0.82-65 kHz	610	24.4	
	0.065-1 MHz	610	1.6/f	
	1-10 MHz	610/f	1.6/f	
	10-400 MHz	61	0.16	10
	400-2000 MHz	3f ^{1/2}	0.008f ^{1/2}	f/40
	2-300 GHz	137	0.36	50
General Public	Up to 1 Hz		2x10 ⁻⁴	
	1-8 Hz	10 000	2x10 ⁻⁴ /f ²	
	8-25 Hz	10 000	5 000//	
	0.025-0.8 kHz	250/f	4/f	

	0.8-3 kHz	$250/f$	5	
	3-150 kHz	87	5	
	0.15-1 MHz	87	$0.73/f$	
	1-10 MHz	$87/f^{1/2}$	$0.73/f$	
	10-400 MHz	28	0.073	7
	400-2000 MHz	$1.375f^{1/2}$	$0.0037f^{1/2}$	$f/200$
	2-300 GHz	61	0.16	10

TABLE 2

BASIC LIMITS FOR PUBLIC AND OCCUPATIONAL EXPOSURE
(ICNIRP)/ITU-T K.52

The exposure limits for the general public are five (5) times lower than that for occupational workers because such workers are normally persons who may have been trained to be aware of RF hazards and have been medically assessed to be fit for work in RF fields.

Type of Exposure	Frequency Range	Current density for head trunk (mA/m ²)	Whole body average SAR	Localized SAR (head and trunk) (W/kg)	Localized SAR (limbs) (W/kg)
Occupational Exposure	Up to 1 Hz	40			
	1-4 Hz	40/f			
	4 Hz-1 kHz	10			
	1-100 kHz	f/100			
	100 kHz- 10 MHz	f/100	0.4	10	20
	10 MHz- 10 GHz		0.4	10	20
General Public	Up to 1 Hz	8			
	1-4 Hz	8/f			
	4 Hz-1 kHz	2			
	1-100 kHz	f/500			
	100 kHz- 10 MHz	f/500	0.08	2	4
	10 MHz- 10 GHz		0.08	2	4

Note :

f is the frequency in Hertz.

Due to electrical inhomogeneity of the body, current densities shall be averaged over a cross-section of 1 cm² perpendicular to the current direction.

All SAR values are to be measured in a period of 6-minutes.

For a localized SAR averaging mass in any 10g of contiguous tissue, the maximum SAR obtained shall be the value used for the estimation of exposure.

TABLE 3
ALTERNATING CURRENT
MINIMUM WORKING DISTANCES FOR TRAINED EMPLOYEES

<i>Voltage Range (Phase to Phase- Kilovolts)</i>	<i>Minimum Working and Clear hot stick Distance (Meters)</i>
2.1 to 1.5	0.6
1.5 to 35	0.71
35.1 to 46	0.76
46.1 to 72.5	0.91
72.6 to 121	1.01
138 to 145	1.06
161 to 169	1.11
230 to 242	1.5
345 to 362	2.13 ^b
500 to 552	3.35 ^b
700 to 765	4.5 ^b

^bNote - from 345-362kv, 500-552kv and 700-765kv. The minimum working distance and the minimum clear hot stick distance may be reduced provided that such distances are not less than the shortest distance between the energized part and a grounded surface.

SEVENTH SCHEDULE

[regulation 11]

ORGANISATIONAL SYSTEM AND THE FUNCTIONS OF
POLLUTION CONTROL MANAGER

1. ORGANISATIONAL SYSTEM

The Agency shall mandate a person to have an organisational system that shall carry out internal environmental auditing of the facility and liaise with the Agency and other relevant Government agencies.

2. ORGANISATIONAL SYSTEM STRUCTURE

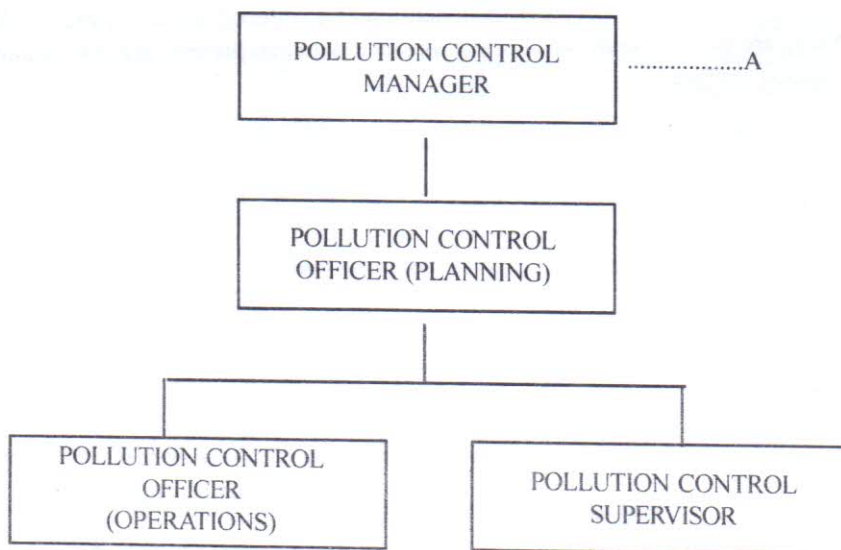
(1) The organisational system shall have a —

- (a) Pollution Control Supervisor;
- (b) Pollution Control Manager ; and
- (c) Pollution Control Chief Manager,

who shall be outsourced to an accredited consultant.

(2) The persons referred to in sub-paragraph (1) of this paragraph shall be certified by the Agency through a national qualifying examination.

ORGANISATION FOR POLLUTION PREVENTION



3. FUNCTIONS OF THE POLLUTION CONTROL MANAGER

The functions of the Pollution Control Manager are to —

- (a) manage the pollution control issues of the facility ;
- (b) assist the manager and direct the operators and technicians ; and
- (c) deal with technical operations of the pollution abatement equipment.

Note : Sub-paragraph (c) of paragraph 3 shall depends on the size of the facility, for a large facility there shall be PCM for air, land and water.

4. SPECIFIC DUTIES OF THE POLLUTION CONTROL MANAGER

The specific duties of the Pollution Control Manager (PCM) are —

- (a) ensuring that the responsibilities for all staff involved in pollution control are very clear ;
- (b) ensuring that daily pollution control practices are complied with ; and
- (c) maintaining smooth and proper environmental and safety communications between the facility, the regulatory authorities, and the host community.

5. CONCRETE POLICIES CONCERNING INDUSTRIES' POLLUTION CONTROL

(1) Management concerning pollution control in a facility shall comprise of —

- (a) improvement and operation of effective environmental management system ;
- (b) communication with the Agency ;
- (c) ability to know when a system is malfunctioning ;
- (d) documentation of the environmental management procedure and control of the records and documents ; and
- (e) co-operation with other relevant Government agencies.

(2) Corporate-wide environmental measures shall comprise of —

- (a) recognition of the business risk in relation to the environmental management system ;
- (b) management and maintenance of competent human resources for pollution control ;
- (c) establishing a corporate-wide environmental management system including risk information feed-back system ;
- (d) establishing a monitoring, assessment and self-improvement system ; and
- (e) establishing a contingency plan and its verification.

GUIDELINES FOR EXTENDED PRODUCER
RESPONSIBILITY PROGRAMME

1. NEW AND USED EEE

(1) As part of the Strategic Sectoral Alliance Programme of the Agency, a person who retails, re-furbishes, distributes, produces, collects, recycles, manufactures or imports EEE shall register with the Producer Responsibility Organisation (PRO) and partner with the Agency to implement the Extended Producer Responsibility Programme in accordance with the provisions of the Guidance Document for the EEE Sector.

(2) The PRO shall submit to the Agency on or before June 30th of each year an annual report for the previous fiscal year, containing but not limited to, the following information —

(a) the total amount of consumer EEE sold and post-consumer products collected ;

(b) the total number of post-consumer EEE processed or in storage;

(c) the percentage of post-consumer EEE treated or contained, reused, recovered, repaired, or recycled ;

(d) efforts taken through consumer EEE marketing strategies to reduce post-consumer products and packaging waste ;

(e) the types of processes applied in the repair, reuse, recovery, or recycling of post-consumer EEE, details of efforts made to incorporate the priorities of pollution prevention hierarchy in the progressive shift from disposal to reduction, repair, reuse, recovery and recycling of post-consumer products ;

(f) the location of collection centres, long-term containment if any, or final treatment and processing facilities for post-consumer products;

(g) the process of internal accountability used to monitor environmental effectiveness ; and

(h) any other information requested by the Agency.

(3) Roles and responsibilities of stakeholders in the implementation of the EPR programme are contained in the Guidance Document for the implementation of the EPR programme for the EEE Sector.

2. RESPONSIBILITIES OF CONSUMER AND BULK CONSUMER

(1) A consumer of EEE shall ensure that e-waste is deposited with a dealer or authorised collection centre.

(2) A bulk consumer of EEE shall ensure that e-waste is auctioned to or deposited with a dealer or authorised collection centre, refurbisher, registered dismantler, recycler, or avail the pick-up, or take back services provided by the producer.

(3) A bulk consumer shall file annual reports to the Agency on or before June 30th following the financial year to which that return relates in the Agency's Form NSR-5.

3. RESPONSIBILITIES OF A RECYCLER

A recycler shall —

- (a) register with the Agency in accordance with the procedure to prescribe in the Thirteenth Schedule to these Regulations ;
- (b) ensure that the facility and recycling process is in accordance with the guidelines issued by the Agency from time to time ;
- (c) make available all records to the Agency for inspection ;
- (d) ensure that residue generated is disposed in a hazardous waste treatment storage disposal facility ; and
- (e) file annual returns to the Agency as the case maybe, on or before June 30th following the financial year to which that returns relate.

NINTH SCHEDULE

[regulation 13(b) and 18(a)]

SLUDGE DISPOSAL PERMISSIBLE LIMIT

DRY SLUDGE (DS) GENERATION FROM WASTE WATER TREATMENT	
S/N Parameters	Sludge Production Kg DS/tonne
1. Sludge (total)	200
Primary Treatment	
2. Mixing- sedimentation	80
3. Mixing-Chemical treatment+ sedimentation	150-200
4. Mixing chemical treatment+ Flotation	150-200
5. Heavy Metals	

TENTH SCHEDULE

[regulations 13(a), 16, 17(1)(a)
and (2) 18(b), and 19(1) (a)]

EFFLUENTS LIMITATION FOR ELECTRONICS
MANUFACTURING, ASSEMBLY AND PROCESSING

No.	Pollutants	Units	Guideline Value
1.	PH	-	6-9
2.	COD	mg/l	160
3.	BODs	mg/l	50
4.	Total suspended solids	mg/l	50
5.	Oil and grease	mg/l	10
6.	Total phosphorous	mg/l	2
7.	Fluoride	mg/l	5
8.	Ammonia	mg/l	10
9.	Cyanide (total)	mg/l	1
10.	Cyanide (free)	mg/l	0.1
11.	AOX (absorbable organic bound halogens)	mg/l	0.5
12.	Arsenic	mg/l	0.1
13.	Chromium (hexavalent)	mg/l	0.1
14.	Chromium (total)	mg/l	0.5
15.	Cadmium	mg/l	0.1
16.	Copper	mg/l	0.5
17.	Lead	mg/l	0.1
18.	Mercury	mg/l	0.01
19.	Nickel	mg/l	0.5
20.	Tin	mg/l	2
21.	Silver	mg/l	0.1
22.	Selenium	mg/l	1
23.	Zinc	mg/l	2
24.	Temperature increase	°C	Less than 3°

^a At the edge of scientifically established mixing zone which takes into account ambient water quality, receiving water use, potential receptors and assimilative capacity.

ELEVENTH SCHEDULE

[regulations 20, 21(b) and 23 (1)]

AIR EMISSION LEVELS FOR ELECTRONICS MANUFACTURING,
ASSEMBLING AND PROCESSING

S/No.	Pollutants	Units	Guideline Value
1.	VOC (Volatile Organic ^a Compound) ^{**}	mg/Nm ³	20
2.	Organic HAP ^b	Ppmv	70
3.	Inorganic HAP ^b	Ppmv	0.42
4.	HCL(Hydrogen Chloride)	mg/Nm ³	10
5.	HF(Hydrogen Fluoride)	mg/Nm ³	5
6.	Phosphine	mg/Nm ³	0.5
7.	Arsine and As Compounds	mg/Nm ³	0.5
8.	Ammonia	mg/Nm ³	30
9.	Acetone	mg/Nm ³	150
10.	Green House Gases		

Notes :

(a) applicable to surface cleaning processes ;

(b) industry-specific hazardous air pollutants (HAPs) include: antimony compounds, arsenic compounds, arsine, carbon tetrachloride, catechol, chlorine, chromium compounds, ethyl acrylate, ethylbenzene, ethylene glycol, hydrochloric acid, hydrofluoric acid, lead compounds, methanol, methyl isobutyl ketone, methylene chloride, nickel compounds, perchloroethylene, phosphine, phosphorous, toluene, 1,1,1- trichloroethane, trichloroethylene (phased-out), xylenes. Current industry practice is not to use ethylbenzene, toluene, xylene, methylene chloride, carbon tetrachloride, chromium compounds, perchloroethylene, 1,1,1- trichloroethane, or trichloroethylene; and

(c) at 3 percent 02.

TWELFTH SCHEDULE

[regulation 24]

NOISE STANDARDS (051-1A)

A — MAXIMUM PERMISSIBLE NOISE LEVELS (CONTINUOUS OR INTERMITTENT NOISE) FROM A FACTORY OR WORKSHOP

<i>S/No.</i>	<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
	<i>Leq dB (A)</i>	<i>Duration (Daily)</i>	<i>Duration (Weekly)</i>
1.	85	8 Hours	40 Hours
2.	88	4 hours	20 hours
3.	91	2 hours	10 hours
4.	94	1 hour	5 hours
5.	97	30 minutes	2.5 hours
6.	100	15 minutes	1.25 hours
7.	106	7.5 minutes	37.5 minutes
8.	109	1.875 minutes	9.375 minutes

B—TABLE OF NOISE DOSE, LEQ, AND TIME

LEQ

Time in Hour	85	87	89	91	93	95	97	99	101
0.50	6.25%	9.91%	15.70%	24.88%	39.43%	62.50%	99.06%	156.99%	248.62%
1.00	12.50%	19.81%	31.40%	49.76%	78.87%	125.00%	198.11%	313.99%	497.63%
1.50	18.75%	29.72%	47.10%	74.65%	118.30%	187.50%	297.17%	470.96%	746.45%
2.00	25.00%	39.62%	62.80%	99.53%	157.74%	250.00%	396.22%	627.97%	995.27%
2.50	31.25%	49.53%	78.50%	124.41%	197.17%	312.50%	495.28%	784.96%	1244.08%
3.00	37.50%	59.43%	94.20%	149.29%	236.61%	375.00%	594.33%	941.96%	1492.90%
3.50	43.75%	69.34%	109.90%	174.17%	276.04%	437.50%	693.39%	1098.95%	1741.72%
4.00	50.00%	79.24%	125.59%	199.05%	315.48%	500.00%	792.45%	1255.94%	1990.54%
4.50	56.25%	89.16%	141.29%	223.04%	354.91%	562.50%	891.50%	1412.94%	2239.35%
5.00	62.50%	99.06%	156.99%	246.82%	394.35%	625.00%	990.56%	1569.93%	2488.17%
5.50	68.75%	108.96%	172.69%	273.70%	433.76%	687.50%	1089.61%	1726.92%	2736.99%
6.00	75.00%	118.87%	188.39%	298.68%	473.22%	750.00%	1188.67%	1883.91%	2985.80%
6.50	81.25%	128.77%	204.09%	323.46%	512.66%	812.50%	1287.73%	2040.91%	3234.62%
7.00	87.50%	138.68%	219.79%	348.34%	552.09%	875.00%	1386.78%	2197.90%	3483.44%
7.50	93.75%	148.58%	235.49%	373.23%	591.52%	937.50%	1485.84%	2354.89%	3732.25%
8.00	100.00%	158.49%	251.19%	398.11%	630.96%	1000.00%	1584.89%	2511.89%	3981.07%

$$\text{Dose} = 100 \times T/8 \times 10^{(\text{Leq} - 85)/10} \% \quad \text{--- (i)}$$

$$\text{Leg.} = 10 \log 10[(\text{Dose}/100) \times (8/T)] + 85 \text{dB (A)} \quad \text{--- (ii)}$$

Where :

T = Individual Worker exposure time

Leq. = A weighted, sound level linearly energy average over T hours.

Worker noise exposure in noise dose calculated by equation (i) shall not exceed 100%.

Note :

(a) exposure to impulsive or impact noise should not exceed 140 dB(C) peak sound pressure level ; and

(b) noise and induced ground vibration of quarry blast measured at 500m from the blast $\leq 100 \text{dB(C)}$, 8mm/s.

THIRTEENTH SCHEDULE

[regulations 27 (2)
and 31 (1)]

REQUIREMENT FOR APPROVAL OF AN EEE RECYCLING FACILITY

An application for approval of an EEE facility shall include —

- (a) the name of the person who shall operate the recycling facility ;
- (b) the registered office address and telephone number of the person who shall operate the recycling facility ;
- (c) the names of all the partners, where the person who shall operate the recycling facility is a partnership registered in Nigeria ;
- (d) the address for service of notices where the address is different from that referred to in sub-paragraph (b) of this paragraph ;
- (e) the name, address, and email of each recycling facility in respect of which an application is made ;
- (f) confirmation of whether or not the person who shall operate the recycling facility has been convicted of an offence under these Regulations or under any other Regulations, and where —
 - (i) a positive confirmation is given, an explanation of how the contravention of such Regulations which resulted in the conviction occurred, and
 - (ii) the steps taken to prevent the reoccurrence of such contravention ;
- (g) certification of equipment by a relevant statutory body ;
- (h) approval by Development Control Authority of the State where the facility is located ;
- (i) a brief technical description of the process ;
- (j) Environmental Impact Statement or Evaluation Report as the case maybe ; and
- (k) any other information that the Agency may require.

(3) A bulk consumer shall file annual reports to the Agency on or before June 30th following the financial year to which that return relates in the Agency's Form NSR-5.

3. RESPONSIBILITIES OF A RECYCLER

A recycler shall —

(a) register with the Agency in accordance with the procedure to prescribe in the Thirteenth Schedule to these Regulations ;

(b) ensure that the facility and recycling process is in accordance with the guidelines issued by the Agency from time to time ;

(c) make available all records to the Agency for inspection ;

(d) ensure that residue generated is disposed in a hazardous waste treatment storage disposal facility ; and

(e) file annual returns to the Agency as the case maybe, on or before June 30th following the financial year to which that returns relate.

NINTH SCHEDULE

[regulation 13(b) and 18(a)]

SLUDGE DISPOSAL PERMISSIBLE LIMIT

DRY SLUDGE (DS) GENERATION FROM WASTE WATER TREATMENT	
S/N Parameters	Sludge Production Kg DS/tonne
1. Sludge (total)	200
Primary Treatment	
2. Mixing-sedimentation	80
3. Mixing-Chemical treatment+ sedimentation	150-200
4. Mixing chemical treatment+ Flotation	150-200
5. Heavy Metals	

TENTH SCHEDULE

[regulations 13(a), 16, 17(1)(a)
and (2) 18(b), and 19(1) (a)]

EFFLUENTS LIMITATION FOR ELECTRONICS
MANUFACTURING, ASSEMBLY AND PROCESSING

No.	Pollutants	Units	Guideline Value
1.	PH	-	6-9
2.	COD	mg/l	160
3.	BODs	mg/l	50
4.	Total suspended solids	mg/l	50
5.	Oil and grease	mg/l	10
6.	Total phosphorous	mg/l	2
7.	Fluoride	mg/l	5
8.	Ammonia	mg/l	10
9.	Cyanide (total)	mg/l	1
10.	Cyanide (free)	mg/l	0.1
11.	AOX (absorbable organic bound halogens)	mg/l	0.5
12.	Arsenic	mg/l	0.1
13.	Chromium (hexavalent)	mg/l	0.1
14.	Chromium (total)	mg/l	0.5
15.	Cadmium	mg/l	0.1
16.	Copper	mg/l	0.5
17.	Lead	mg/l	0.1
18.	Mercury	mg/l	0.01
19.	Nickel	mg/l	0.5
20.	Tin	mg/l	2
21.	Silver	mg/l	0.1
22.	Selenium	mg/l	1
23.	Zinc	mg/l	2
24.	Temperature increase	°C	Less than 3°

^a At the edge of scientifically established mixing zone which takes into account ambient water quality, receiving water use, potential receptors and assimilative capacity.

ELEVENTH SCHEDULE

[regulations 20, 21(b) and 23 (1)]

AIR EMISSION LEVELS FOR ELECTRONICS MANUFACTURING,
ASSEMBLING AND PROCESSING

S/No.	Pollutants	Units	Guideline Value
1.	VOC (Volatile Organic ^a Compound) ^{**}	mg/Nm ³	20
2.	Organic HAP ^b	Ppmv	70
3.	Inorganic HAP ^b	Ppmv	0.42
4.	HCL(Hydrogen Chloride)	mg/Nm ³	10
5.	HF(Hydrogen Fluoride)	mg/Nm ³	5
6.	Phosphine	mg/Nm ³	0.5
7.	Arsine and As Compounds	mg/Nm ³	0.5
8.	Ammonia	mg/Nm ³	30
9.	Acetone	mg/Nm ³	150
10.	Green House Gases		

Notes :

(a) applicable to surface cleaning processes ;

(b) industry-specific hazardous air pollutants (HAPs) include: antimony compounds, arsenic compounds, arsine, carbon tetrachloride, catechol, chlorine, chromium compounds, ethyl acrylate, ethylbenzene, ethylene glycol, hydrochloric acid, hydrofluoric acid, lead compounds, methanol, methyl isobutyl ketone, methylene chloride, nickel compounds, perchloroethylene, phosphine, phosphorous, toluene, 1,1,1- trichloroethane, trichloroethylene (phased-out), xylenes. Current industry practice is not to use ethylbenzene, toluene, xylene, methylene chloride, carbon tetrachloride, chromium compounds, perchloroethylene, 1,1,1- trichloroethane, or trichloroethylene; and

(c) at 3 percent 02.

TWELFTH SCHEDULE

[regulation 24]

NOISE STANDARDS (051-1A)

A — MAXIMUM PERMISSIBLE NOISE LEVELS (CONTINUOUS OR INTERMITTENT NOISE) FROM A FACTORY OR WORKSHOP

<i>S/No.</i>	<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
	<i>Leq dB (A)</i>	<i>Duration (Daily)</i>	<i>Duration (Weekly)</i>
1.	85	8 Hours	40 Hours
2.	88	4 hours	20 hours
3.	91	2 hours	10 hours
4.	94	1 hour	5 hours
5.	97	30 minutes	2.5 hours
6.	100	15 minutes	1.25 hours
7.	106	7.5 minutes	37.5 minutes
8.	109	1.875 minutes	9.375 minutes

B — TABLE OF NOISE DOSE, LEQ, AND TIME

LEQ									
Time in Hour	85	87	89	91	93	95	97	99	101
0.50	6.25%	9.91%	15.70%	24.88%	39.43%	62.50%	99.06%	156.99%	248.62%
1.00	12.50%	19.81%	31.40%	49.76%	78.87%	125.00%	198.11%	313.99%	497.63%
1.50	18.75%	29.72%	47.10%	74.65%	118.30%	187.50%	297.17%	470.96%	746.45%
2.00	25.00%	39.62%	62.80%	99.53%	157.74%	250.00%	396.22%	627.97%	995.27%
2.50	31.25%	49.53%	78.50%	124.41%	197.17%	312.50%	495.28%	784.96%	1244.08%
3.00	37.50%	59.43%	94.20%	149.29%	236.61%	375.00%	594.33%	941.96%	1492.90%
3.50	43.75%	69.34%	109.90%	174.17%	276.04%	437.50%	693.39%	1098.95%	1741.72%
4.00	50.00%	79.24%	125.59%	199.05%	315.48%	500.00%	792.45%	1255.94%	1990.54%
4.50	56.25%	89.16%	141.29%	223.04%	354.91%	562.50%	891.50%	1412.94%	2239.35%
5.00	62.50%	99.06%	156.99%	246.82%	394.35%	625.00%	990.56%	1569.93%	2488.17%
5.50	68.75%	108.96%	172.69%	273.70%	433.76%	687.50%	1089.61%	1726.92%	2736.99%
6.00	75.00%	118.87%	188.39%	298.68%	473.22%	750.00%	1188.67%	1883.91%	2985.80%
6.50	81.25%	128.77%	204.09%	323.46%	512.66%	812.50%	1287.73%	2040.91%	3234.62%
7.00	87.50%	138.68%	219.79%	348.34%	552.09%	875.00%	1386.78%	2197.90%	3483.44%
7.50	93.75%	148.58%	235.49%	373.23%	591.52%	937.50%	1485.84%	2354.89%	732.25%
8.00	100.00%	158.49%	251.19%	398.11%	630.96%	1000.00%	1584.89%	2511.89%	3981.07%

$$\text{Dose} = 100 \times T/8 \times 10^{(\text{Leq} - 85)/10} \% \quad \text{--- (i)}$$

$$\text{Leg.} = 10 \log 10[(\text{Dose}/100) \times (8/T)] + 85 \text{dB (A)} \quad \text{--- (ii)}$$

Where :

T = Individual Worker exposure time

Leq. = A weighted, sound level linearly energy average over T hours.

Worker noise exposure in noise dose calculated by equation (i) shall not exceed 100%.

Note :

(a) exposure to impulsive or impact noise should not exceed 140 dB(C) peak sound pressure level ; and

(b) noise and induced ground vibration of quarry blast measured at 500m from the blast $\leq 100\text{dB(C)}$, 8mm/s.

THIRTEENTH SCHEDULE

[regulations 27 (2)
and 31 (1)]

REQUIREMENT FOR APPROVAL OF AN EEE
RECYCLING FACILITY

An application for approval of an EEE facility shall include —

- (a) the name of the person who shall operate the recycling facility ;
- (b) the registered office address and telephone number of the person who shall operate the recycling facility ;
- (c) the names of all the partners, where the person who shall operate the recycling facility is a partnership registered in Nigeria ;
- (d) the address for service of notices where the address is different from that referred to in sub-paragraph (b) of this paragraph ;
- (e) the name, address, and email of each recycling facility in respect of which an application is made ;
- (f) confirmation of whether or not the person who shall operate the recycling facility has been convicted of an offence under these Regulations or under any other Regulations, and where —
 - (i) a positive confirmation is given, an explanation of how the contravention of such Regulations which resulted in the conviction occurred, and
 - (ii) the steps taken to prevent the reoccurrence of such contravention ;
- (g) certification of equipment by a relevant statutory body ;
- (h) approval by Development Control Authority of the State where the facility is located ;
- (i) a brief technical description of the process ;
- (j) Environmental Impact Statement or Evaluation Report as the case maybe ; and
- (k) any other information that the Agency may require.

FOURTEENTH SCHEDULE

[regulation 31 (2)]

GUIDELINES FOR ESTABLISHMENT OF COLLECTION CENTER

1. A person who operates an e-waste collection centre shall —
 - (a) register with the PRO and the Agency ; and
 - (b) provide a registration system for informal collectors.
2. A person who operates an e-waste collection centre shall ensure that the —
 - (a) storage condition is not —
 - (i) directly exposed to sunlight or any source of heat, or
 - (ii) exposed to rain, percolation, water or any liquid ;
 - (b) the floor of the facility is tiled ; and
 - (c) ambient temperature is not exceeded.
3. A person who operates a collection centre shall be accredited by the Agency upon meeting —
 - (a) appropriate premises suitable for the scope of operation ;
 - (b) shelves ;
 - (c) fire extinguishers ;
 - (d) lighting, natural or artificial ;
 - (e) ventilation, natural or artificial ;
 - (f) provision for gang way ;
 - (g) strategically located safety sign ;
 - (h) proper arrangement ; and
 - (i) impermeable surface.

FIFTEENTH SCHEDULE

[regulation (44) (2)(b))
and (c)]MONTHLY DISCHARGE MONITORING REPORT (MDMR)
[THE AGENCY DISCHARGE MONITORING REPORT]

FORM 1

PLEASE COMPLETE AND SUBMIT ONE COPY EACH MONTH

THIS REPORT MUST BE POSTMARKED NOT LATER THAN THE 8TH DAY OF THE FOLLOWING MONTH.

Facility Name and Address :

Mail to :

National Environmental Standards and Regulations Enforcement Agency
(NESREA),
Headquarters,
Abuja.

--	--	--	--

Sampling Point Location

Month :

Year

Sampling Date and Time:

Sampling Dates and Parameters		Weekly Results				NESREA's Regulatory Limits
		1st	2nd	3rd	4th	
PHYSICAL :	UNITS					Average
Appearance						
Odour						
Temperature	°C					
pH						
Conductivity						
Turbidity	NTU					
Dissolved Oxygen (DO)	mg/l					
Total Suspended Solids	mg/l					
Total Dissolved Solids (TDS)	mg/l					
BOD	mg/l					
COD	mg/l					

Sampling Dates and Parameters		Weely Results				NESREA's Regulatory Limits
	UNITS	1st	2nd	3rd	4th	Average
INORGANIC :						
Chloride	mg/l					
Nitrate	mg/l					
Sulphate	mg/l					
Sulphite	mg/l					
Cyanide.	mg/l					
Nitrites	mg/l					
Chromium (hexavalent)	mg/l					
Copper	mg/l					
Zinc	mg/l					
Lead	mg/l					
Cadmium	mg/l					
Manganese	mg/l					
Silver	mg/l					
Mercury	mg/l					
Arsenic	mg/l					
ORGANICS:						
Phenols	mg/l					
Oil and Grease	mg/l					
MICRO-BIOLOGICAL:						
Faecal Coli form	CFU.					
NOISE MEASUREMENTS						
LOCATIONS				NOISE LEVEL		
		Signature with date of principal executive officer or authorised agent;	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a design to ensure that qualified personnel properly gather and evaluate the information submitted.			
Signature of Certified Operator	Date (Month, Day, Year)	Date:				
		Signature:				

FORM 2

NATIONAL ENVIRONMENTAL STANDARDS AND REGULATIONS
ENFORCEMENT AGENCY (NESREA)

This report is to be completed when accidental discharge, occupational illness or incident occurs. If an employee is injured or develops gradually a job-related illness as a result of his employment at the facility, he must complete and submit the "Incident Report". If the employee is unable to complete the form, the supervisor must complete on his behalf.

Incident reporting ensures there is a record on file of the employer and in no way does this waive the employee's right to workers compensation benefits. If an injury occurs, first aid may be administered before any appropriate treatment.

INCIDENT REPORT FORM

1. FACILITY

Name and Address of Facility :

.....

No. of Employees :

.....

Department where the discharge occurred :

.....

2. DISCHARGE

Cause(s) of discharge :

Did the discharge occur as a result of mechanical/technical/unskilled application? Please specify.

.....

Into which medium was it discharged to i.e. water body, land, or air? Please specify.

.....

If water body, specify type of water, pond, stream, lake, river etc.

.....

If land,

* Name and location (Geo-reference) of the land where discharge occurred.

.....

* Ways of disposing of discharge, i.e. burying, burning, etc. Please specify.

.....

Was there any previous accidental discharge of this kind? Yes/No.

If yes when ?

How ?

Who was/were the victim(s) ?

SIXTEENTH SCHEDULE [regulation 9(3)]

1. *Classification of chemicals according to hazard*

Hazardous characteristics of chemicals can be identified as —

- (a) flammable solvents ;
- (b) corrosive, acid or alkali ;
- (c) reactive, bleach or oxidizer ;
- (d) toxic ; or
- (e) environmentally bio-accumulative.

2. *Hazardous solvents in EEE manufacturing, processing, assembly, recycling*

Hazardous waste solvents in EEE manufacturing, processing, assembling and recycling include —

- (a) spent deionized water ;
- (b) spent solvents ;
- (c) spent cleaning solutions ;
- (d) sludge from waste water treatment ;
- (e) spent epoxy material ; and
- (f) spent cyanide solutions among others.

3. *Hazardous substances in EEE*

EEE contain hazardous substances such as —

- (a) Americium ;
- (b) Mercury ;
- (c) Sulphur ;
- (d) Lead ;
- (e) Beryllium oxide ;
- (f) Polyvinyl chloride ;
- (g) Toluene ;
- (h) 1,1,1 trichloroethane ;
- (i) Trichloroethylene ;
- (j) Xylenes ;
- (k) Polybrominated Biphenyls (PBBs) ;
- (l) Polychlorinated Biphenyls (PCBs) ;
- (m) Polychlorinated Terphenyls (PCTs) ;
- (n) Creosote ;
- (o) Pentachlorophenol (PCP) ;
- (p) Copper arsenate (CCA) ;
- (q) Sulphur hexafluoride (SF₆) ;
- (r) Copper beryllium alloys ;
- (s) Cadmium sulphide ;
- (t) Cadmium oxide ;

- (u) Decabromodiphenyl ether (DecaBDE) ;
- (v) Pentabromodiphenyl ether (PentaBDE) ;
- (w) Octabromodiphenyl ether (OctaBDE) ;
- (x) Crocidolite ;
- (y) Cadmium ;
- (z) Chromium V ;
 - (aa) Tris (2, 3 dibromopropyl) phosphate ;
 - (bb) Halogenated substances (CFCs, HCFC, HFC, HC); and
 - (cc) Perfluorooctane sulfonates (PFOS).

SEVENTEENTH SCHEDULE

[regulation 35(2)]

APPLICATION FOR PERMIT

1.0. PARTICULARS OF APPLICANT

1.1. NAMES, PHYSICAL AND POSTAL ADDRESS OF APPLICANT

- (a) Name :
- (b) Physical address :
- (c) Postal address :
- (d) Telephone (landline) :
- (e) Fax :
- (f) Mobile Phone :
- (g) E-mail :
- (h) Website :

1.2. NAME AND DETAILS OF CONTACT PERSON

- (a) Name :
- (b) Physical address :
- (c) Postal address :
- (d) Telephone :
- (e) Mobile Phone :
- (f) E-mail :
- (g) Website :

2.0. LEGAL STATUS OF ORGANISATION AND NATURE OF BUSINESS

2.1. Indicate Legal Status of Organisation (*Tick relevant option*)

- (a) Sole proprietorship ;
- (b) Partnership ;
- (c) Public Limited Liability Company ;
- (d) Private Limited Company ;
- (e) Cooperative Society ; and
- (f) Other (please specify).

(Attach Certificate of Registration, Certificate of Incorporation, Memorandum and Articles of Association, Deed of Partnership, Deed of Trust, as applicable)

FOURTEENTH SCHEDULE

[regulation 31 (2)]

GUIDELINES FOR ESTABLISHMENT OF COLLECTION CENTER

1. A person who operates an e-waste collection centre shall —
 - (a) register with the PRO and the Agency ; and
 - (b) provide a registration system for informal collectors.
2. A person who operates an e-waste collection centre shall ensure that the —
 - (a) storage condition is not —
 - (i) directly exposed to sunlight or any source of heat, or
 - (ii) exposed to rain, percolation, water or any liquid ;
 - (b) the floor of the facility is tiled ; and
 - (c) ambient temperature is not exceeded.
3. A person who operates a collection centre shall be accredited by the Agency upon meeting —
 - (a) appropriate premises suitable for the scope of operation ;
 - (b) shelves ;
 - (c) fire extinguishers ;
 - (d) lighting, natural or artificial ;
 - (e) ventilation, natural or artificial ;
 - (f) provision for gang way ;
 - (g) strategically located safety sign ;
 - (h) proper arrangement ; and
 - (i) impermeable surface.

FIFTEENTH SCHEDULE

[regulation (44) (2)(b))
and (c)]

MONTHLY DISCHARGE MONITORING REPORT (MDMR)
[THE AGENCY DISCHARGE MONITORING REPORT]

FORM I

PLEASE COMPLETE AND SUBMIT ONE COPY EACH MONTH

THIS REPORT MUST BE POSTMARKED NOT LATER THAN THE 8TH DAY OF THE FOLLOWING MONTH.

Facility Name and Address :

Mail to :

National Environmental Standards and Regulations Enforcement Agency
(NESREA),
Headquarters,
Abuja.

--	--	--	--

Sampling Point Location

Month :

Year

Sampling Date and Time:

Sampling Dates and Parameters		Weely Results				NESREA's Regulatory Limits
		1st	2nd	3rd	4th	Average
PHYSICAL :	UNITS					
Appearance						
Odour						
Temperature	°C					
pH						
Conductivity						
Turbidity	NTU					
Dissolved Oxygen (DO)	mg/l					
Total Suspended Solids	mg/l					
Total Dissolved Solids (TDS)	mg/l					
BOD	mg/l					
COD	mg/l					

Sampling Dates and Parameters		Weely Results				NESREA's Regulatory Limits
	UNITS	1st	2nd	3rd	4th	Average
INORGANIC :						
Chloride	mg/l					
Nitrate	mg/l					
Sulphate	mg/l					
Sulphite	mg/l					
Cyanide.	mg/l					
Nitrites	mg/l					
Chromium (hexavalent)	mg/l					
Copper	mg/l					
Zinc	mg/l					
Lead	mg/l					
Cadmium	mg/l					
Manganese	mg/l					
Silver	mg/l					
Mercury	mg/l					
Arsenic	mg/l					
ORGANICS:						
Phenols	mg/l					
Oil and Grease	mg/l					
MICRO-BIOLOGICAL:						
Faecal Coli form	CFU.					
NOISE MEASUREMENTS						
LOCATIONS				NOISE LEVEL		
		Signature with date of principal executive officer or authorised agent;	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a design to ensure that qualified personnel properly gather and evaluate the information submitted.			
Signature of Certified Operator	Date (Month, Day, Year)	Date:				
		Signature:				

FORM 2

NATIONAL ENVIRONMENTAL STANDARDS AND REGULATIONS
ENFORCEMENT AGENCY (NESREA)

This report is to be completed when accidental discharge, occupational illness or incident occurs. If an employee is injured or develops gradually a job-related illness as a result of his employment at the facility, he must complete and submit the "Incident Report". If the employee is unable to complete the form, the supervisor must complete on his behalf.

Incident reporting ensures there is a record on file of the employer and in no way does this waive the employee's right to workers compensation benefits. If an injury occurs, first aid may be administered before any appropriate treatment.

INCIDENT REPORT FORM

1. FACILITY

Name and Address of Facility :

.....
.....
.....

No. of Employees :

.....
.....
.....

Department where the discharge occurred :

.....
.....
.....

2. DISCHARGE

Cause(s) of discharge :

Did the discharge occur as a result of mechanical/technical/unskilled application? Please specify.

.....
.....

Into which medium was it discharged to i.e. water body, land, or air? Please specify.

.....
.....

If water body, specify type of water, pond, stream, lake, river etc.

.....

If land,

* Name and location (Geo-reference) of the land where discharge occurred.

.....

* Ways of disposing of discharge, i.e. burying, burning, etc. Please specify.

.....

Was there any previous accidental discharge of this kind? Yes/No.

If yes when ?

How ?

Who was/were the victim(s) ?

SIXTEENTH SCHEDULE [regulation 9(3)]

1. *Classification of chemicals according to hazard*

Hazardous characteristics of chemicals can be identified as —

- (a) flammable solvents ;
- (b) corrosive, acid or alkali ;
- (c) reactive, bleach or oxidizer ;
- (d) toxic ; or
- (e) environmentally bio-accumulative.

2. *Hazardous solvents in EEE manufacturing, processing, assembly, recycling*

Hazardous waste solvents in EEE manufacturing, processing, assembling and recycling include —

- (a) spent deionized water ;
- (b) spent solvents ;
- (c) spent cleaning solutions ;
- (d) sludge from waste water treatment ;
- (e) spent epoxy material ; and
- (f) spent cyanide solutions among others.

3. *Hazardous substances in EEE*

EEE contain hazardous substances such as —

- (a) Americium ;
- (b) Mercury ;
- (c) Sulphur ;
- (d) Lead ;
- (e) Beryllium oxide ;
- (f) Polyvinyl chloride ;
- (g) Toluene ;
- (h) 1,1,1 trichloroethane ;
- (i) Trichloroethylene ;
- (j) Xylenes ;
- (k) Polybrominated Biphenyls (PBBs) ;
- (l) Polychlorinated Biphenyls (PCBs) ;
- (m) Polychlorinated Terphenyls (PCTs) ;
- (n) Creosote ;
- (o) Pentachlorophenol (PCP) ;
- (p) Copper arsenate (CCA) ;
- (q) Sulphur hexafluoride (SF) ;
- (r) Copper beryllium alloys ;
- (s) Cadmium sulphide ;
- (t) Cadmium oxide ;

- (u) Decabromodiphenyl ether (DecaBDE) ;
- (v) Pentabromodiphenyl ether (PentaBDE) ;
- (w) Octabromodiphenyl ether (OctaBDE) ;
- (x) Crocidolite ;
- (y) Cadmium ;
- (z) Chromium V ;
 - (aa) Tris (2, 3 dibromopropyl) phosphate ;
 - (bb) Halogenated substances (CFCs, HCFC, HFC, HC); and
 - (cc) Perfluorooctane sulfonates (PFOS).

SEVENTEENTH SCHEDULE

[regulation 35(2)]

APPLICATION FOR PERMIT

1.0. PARTICULARS OF APPLICANT

1.1. NAMES, PHYSICAL AND POSTAL ADDRESS OF APPLICANT

- (a) Name :
- (b) Physical address :
- (c) Postal address :
- (d) Telephone (landline) :
- (e) Fax :
- (f) Mobile Phone :
- (g) E-mail :
- (h) Website :

1.2. NAME AND DETAILS OF CONTACT PERSON

- (a) Name :
- (b) Physical address :
- (c) Postal address :
- (d) Telephone :
- (e) Mobile Phone :
- (f) E-mail :
- (g) Website :

2.0. LEGAL STATUS OF ORGANISATION AND NATURE OF BUSINESS

2.1. Indicate Legal Status of Organisation (*Tick relevant option*)

- (a) Sole proprietorship ;
- (b) Partnership ;
- (c) Public Limited Liability Company ;
- (d) Private Limited Company ;
- (e) Cooperative Society ; and
- (f) Other (please specify).

(Attach Certificate of Registration, Certificate of Incorporation, Memorandum and Articles of Association, Deed of Partnership, Deed of Trust, as applicable)

