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Government Notice No.212

The following is published as [illegible] to this Gazette:

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

NATIONAL ENVIRONMENTAL (CONTROL OF ALIEN AND INVASIVE SPECIES) REGULATIONS, 2013

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S I No. 32 of 2013

NATIONAL ENVIRONMENTAL (CONTROL OF ALIEN AND INVASIVE SPECIES) REGULATIONS, 2013

[29*th October*, 2013] Commencement.

In exercise of the powers conferred on me by section 34 of the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007 and all other powers enabling me in that behalf, I, ARC. DARIUS DICKSON ISHAKU, fnia, Honourable Minister, Federal Ministry of Environment, hereby make the following Regulations :

PART I—PURPOSE OF THE REGULATIONS

Purpose.

1. These Regulations seeks to prevent the decline, minimize the modification and destruction of ecosystem, economy and human health caused by Alien and Invasive Species (in these Regulations referred to as 'Species') by :

(*a*) regulating the raising, planting, storing, carrying, importing, or any other handling of the species ;

(*b*) taking measures, such as mitigation, with the aim of stabilizing and improving national life through contributions to conservation of biodiversity, human safety and sound development of agriculture, forestry and fisheries ;

(*c*) developing a national de[illegible]

[redacted]

take a restricted activity involving a specimen of these Regulations unless he :

Restricted Activites.

hat the species falls within the category of

it to undertake a restricted activity involving

r VI of these Regulations ; and

ea[illegible]

of the species listed under Schedule V

(*a*) has a permit ; and

(*b*) bear the onus of proving t the restricted activity.

(2) A person shall require a perm a specimen of the species :

(*a*) not listed in Schedule V o

(*b*) where the activity will be

Prescribed Activities.

4. The following activities are prescribed as restricted activities involving a specimen of the species :

(*a*) trade in the species ;

(*b*) importing into the Country, including introducing from the sea, any [redacted] and other packaging materials that do not comply with extant national standards ;

(*c*) importing into the Country, including introducing from the sea, any peat or peat products, unless the peat or peat products have been treated in a manner that shall destroy any living specimens of the species that occur in the peat ;

(*d*) discharging ballast water, from ships mid-sea to the coast of the Country, unless the water has been treated in a manner that [redacted]

(*c*) reviewing the status of the species ; and

(*d*) such other functions as may be necessary for the effective implementation of the pr[redacted]ions.

"alien species" means non-native species of plants, animals and microbes, their seeds, spores, eggs or other bio-materials capable of propagating these organisms, which might have migrated or been introduced intentionally or unintentionally from other countries or ecosystems ;

"ballast water" means water pumped into the bottom of a ship to ensure its stability ;

"building capacity" means activities which strengthen the knowledge, abilities, skills and behavior of individuals and improve institutional structures and processes such that the organization can efficiently meet its mission and goals in a sustainable way ;

"captive breeding operation" means a facility where specimens of an alien or listed invasive species are bred in a controlled environment ;

"competent authorities" means the Authorities referred to in regulation 9 of these Regulations ;

"control" means, suppression, removal, management and reduction of the species' population ;

"ecosystem" means natural or man-made complex community of organisms and their existing environment ;

"introduction" means intentional or unintentional escape or release of a species into any ecosystem in the country ;

"invasive species" means either native or non-native species of plant, animal and organism, which might have been introduced intentionally or unintentionally from other countries or ecosystems and threaten their immediate ecosystems ;

"invasion" means the establishment and subsequent spread of a species outside its distribution range to the extent that it poses threat to biodiversity, colonization of habitats, impostor species, reduce yield ;

"issuing authority" means National Environmental Standards and Regulations Enforcement Agency (NESREA) as referred to in regulation 12 of these Regulations ;

"listed invasive species" means a species listed in Schedules V and VI to these Regulations ;

"native species" means species that has historically occurred in particular ecosystem in the country ;

"natural distribution range" as it relates to indigenous species, means the ecological zones and geographical areas in which a species historically occurred in the country and is the area indicated to be the natural distribution range, including additional distribution range ;

"notice" means the notice written by owner of land under regulation 6 of these Regulations ;

"occupier" means owner, leasee, user, etc. of land ;

"peat" means renewable, natural, organic material of botanical origin and includes an accumulation of partially decayed vegetation material that formed in waterlogged, sterile, acidic and anaerobic conditions ;

"permit" means a permit issued under these Regulations ;

"permit holder" means a person to whom a permit has been issued under Part V to these Regulations ;

"person" means an individual or body corporate ;

"prohibited alien species" means an alien species listed under schedule VI to these Regulations ;

"raising" means all activities relating to nursing, planting, storing and carrying as stipulated in regulation 1 of these Regulations ;

"restricted activity" in relation to a specimen of the species, means ;

(*a*) importing into a country, through land, sea and air, including introducing from the sea, any specimen of the species ;

(*b*) having in possession or exercising physical control over any of the species ;

(*c*) Raising, breeding or in any other way propagating any specimen of the species or causing it to multiply ;

(*d*) conveying, moving or otherwise translocating any specimen of the species ;

(*e*) selling or otherwise trade in, buying, receiving, donating or accepting as a gift, or in any way acquiring or disposing of any specimen of the species ; or

(*f*) any other activity prescribed in these Regulations ;

"risk assessment" means a research-based evaluation of the threat or potential threat posed to biodiversity by a restricted activity involving a specimen of the species ;

"sanctuary" means a facility in which a permanent captive habitat is provided in a controlled environment for specimens of the species that would be unable to sustain themselves if released and where no breeding of the species kept in captivity for these purposes are allowed ;

"species" means all groups of organisms that generally interbreed among themselves ;

"specimen" means any part of the species, fresh, dried, tissues, preserved specimens, herbarium vouchers, or derivatives ;

"trade" means export, re-export, import and introduction from the sea, land and air ;

"trans-boundary" means crossing a provincial, territorial or national boundary or border ;

"stakeholders" means land owners, including individuals, groups of people, institutions, corporate bodies, communities, conservation or environmental entities, non-governmental organizations and government agencies ; and

"weed killer" means any substance used to eliminate un-wanted plants.

Citation.

20. These Regulations may be cited as the National Environmental (Control of Alien and Invasive Species) Regulations, 2013.

SCHEDULE I (*Regulation* 6)

LISTED INVASIVE SPECIES NOTIFICATION FORM

Reference Number : ..... Date : .....

1. *Land Occupier's Details*:

(*a*) Full Name : .....

(*b*) Nationality and National Identification Number : .....

(*c*) Postal Address : .....

(*d*) Telephone Number (Code) : .....

(*e*) Fax Number: (Code) : .....

(*f*) Mobile Phone Number : .....

(*g*) E-mail Address : .....

2. *Site and Species Details* :

(*a*) Location, State/Local Government Area : .....
.....

(*b*) Global Positioning System (GPS) Coordinates : .....

(*c*) Listed Invasive Species occurring on land and/or water (Attach list if space is insufficient) :

(*i*) Scientific name : .....

(*ii*) Common name : .....

(*d*) Extent of the infestation of each species, density of infestation (estimated number of specimens/area infested) and frequency (e.g. isolated specimens, small groups, large groups, sparse, dense, very dense).

(*e*) Provide details of the location of the listed Invasive Species on the property. (Please mark on a separate 1:50,000 map or aerial photo).

(*f*) What measures have been adopted to monitor, control and/or eradicate the Invasive Species listed in item 2 (*c*) above?

3. *Undertaking* :

I, the undersigned, (*Full Name*) : ..... hereby confirm that the above information is correct and complete to the best of my knowledge.

Signed : ..... Date : .....

SCHEDULE II (*Regulation* 7)

APPLICATION FORM FOR A PERMIT

Reference Number:..... Date.....

1. *Personal Details:*

(*a*) Full Name of Applicant : .....

(*b*) Identification Number : .....

(*c*) Company (*if applicable*) : .....

(*d*) Physical Address : .....

(*e*) Postal code : .....

(*f*) Postal Address : .....

(*g*) Telephone Number (*Code*) : .....

(*h*) Fax Number (*Code*) : .....

(*i*) Mobile Phone Number : .....

(*j*) E-Mail Address : .....

2. *Species information :*

(*a*) Scientific Name : .....

(*b*) Common Name : .....

(*c*) Description : .....

(*d*) Quantity (*number/mass*) : .....

3. *Restricted activity for which permit is required :*
Encircle the relevant activity and complete the appropriate sections

(*a*) Import into Country (*complete section* 4)

(*b*) Possession (*complete section* 5)

(*c*) Growing/Breeding/Propagating (*complete section* 6)

(*d*) Conveying/Moving/Translocating (*complete section* 7)

(*e*) Selling/Trading/Buying (*complete section* 8)

(*f*) Receiving /Giving/Donating (*complete section* 9)

(*g*) Disposal/Acquisition (*complete section* 10)

4. *Details required for import into the Country* :

(*a*) Full name and Address of foreign supplier/exporter.....

.....

(*b*) Full name and Address of importer and final destination .....

.....

(*c*) Port of Entry .. ..

(*d*) Expected date of Arrival .....

(*e*) Departure .....

5. *Details required for possession* :

(*a*) Name and address of person taking possession of specimen(s) (*if different from applicant*).....

(*b*) Permit address (*where specimen will be kept*) .....

6. *Details required for growing/breeding/propagating* :

6.1. Name of breeder... .....

6.2. Type of facility (Encircle the appropriate facility) :

(*a*) Botanical Garden ;

(*b*) Arboretum ;

(*c*) Nursery—Wholesale ;

(*d*) Nursery—Retail ;

(*e*) Museum ;

(*f*) Zoo ;

(*g*) Captive breeding operation ;

(*h*) Game farm ;

(*i*) Others (*specify*) :

6.3. Address of the facility where this restricted activity is to be carried out :

.....

6.4. Date of Establishment : .....

7. *Details required for conveying/moving/translocation* :

7.1. Conveyed/Moved /Translocated from (*name and address*) : .....

.....

7.2. Conveyed/Moved/Translocated to (*name and address*) : .....

.....

7.3. Expected date and duration of activity:.....

7.4. Method : .....

.....

8. *Details required for selling/trading/buying* :

8.1. Address of premises from where the restricted activity is to be carried out : .....

.....

8.2. Name and address of buyer/purchaser/trader : .....

.....

9. *Details required for receiving/giving/donating* :

9.1. Name and address of giver/donor .....

.....

9.2. Name and address of recipient .....

10. *Details required for disposal/acquisition* :

10.1. Address of premises where activity is to be carried out : .....

.....

10.2. Proposed method of disposal/acquisition : .....

10.3. Reason(s) for disposal/acquisition : .....

.....

11. (UNDERTAKING) I, the undersigned, (*Full Name*).....

.....

hereby confirm that the above information is correct and complete to the best of my knowledge.

Signed : ..... *Date* :.....

For Official Use Only:

Permit approved
Official stamp

Permit not approved
Official stamp

Reason : .....

.....

SCHEDULE III (*Regulation* 8)

INFORMATION REQUIRED FOR ASSESSMENT OF RISK AND POTENTIAL IMPACT OF ALIEN AND INVASIVE SPECIES

1. Evaluation of Invasive Status :

(*a*) Taxonomy of the species :.....

(*b*) Taxonomy Serial Number (TSN) .....

(*c*) Scientific name .....

(*d*) Synonyms .....

(*e*) Common names .....

(*f*) Family .....

2. Originating Environment of the species :

(*a*) Climate .....

(*b*) Extent of geographic range and trends.....

(*c*) Persistence attributes of the species.....

(*d*) Reproductive potential .....

(*e*) Mode of reproduction .....

(*f*) Dispersal mechanisms.....

(*g*) Undesirable traits .....

(*h*) invasive tendencies of the species elsewhere and taxonomic predisposition .....

.....

(*i*) History of domestic propagation or cultivation of the species, introductions and the extent of naturalization and nutritional or dietary requirements of the species and, where applicable, whether it enjoys a specialist or generalist diet .....

.....

(*j*) Information regarding the restricted activity in respect of which the permit is sought :

(*i*) Nature of the restricted activity.....

(*ii*) Reason for the stricted activity.....

(*iii*) Location where the restricted activity is to be carried out.....

.....

(*k*) Number of Specimens of the Species involved.....

.....

(*l*) Gender (Where applicable) of the specimens of the species involved

.....

(*m*) Intended destination of the specimens, if they are to be translocated

.....

(*n*) Information regarding the receiving environment ;

(*o*) Climate match.....

(*p*) Habitat.....

(*q*) Presence of natural enemies, predators and competitors .....

(*r*) Presence of potentially reproductive compatible species .....

3. Information that the Competent Authority may determine :

(*a*) The probability that the species will naturalize in the area in which the restricted activity is to be undertaken or elsewhere in the Country.....

(*b*) The probable impact of the species on the biodiversity and sustainable use of natural resources of :

(*i*) the area in which the restricted activity is to be undertaken.....; and

(*ii*) elsewhere in the Country .....

SCHEDULE IV (*Regulation* 14)

PERMIT

Sequential permit number (*Handwritten*).....

Specify :

(*a*) The person to whom it applies .....

(*b*) The identity or registration number .....

(*c*) Scientific Name and Taxonomic Serial Number (TSN) of species .....

(*d*) The restricted activities for which the permit is issued.....

(*e*) The validity period .....

(*f*) Signed by the Issuing Authority and certified by an official stamp

(*g*) Contain conditions, if any.

SCHEDULE V (*Regulation 2*)

LIST OF ALIEN AND INVASIVE SPECIES REQUIRING PERMIT

The list in this Schedule shall include :

(a) all species which are not necessarily now invasive but may have characteristics for invasion and may become invasive if traded and therefore subject to strict control in order to prevent or restrict their spread ;

(*b*) all traded ornamental plants and animals ; and

(*c*) such other species as may from time to time be identified.

LIST OF ALIEN AND INVASIVE SPECIES REQUIRING PERMIT

S/No.	*Common Name*	*Scientific Name*
	Reptiles	
1.	Bicoloured trailing ant,	Monomoriumfloricola Jerdon, 1851
2.	Medfly, Mediterranean fruit fly	Ceratitiscapitata Wiedermann, 1824
3.	Hibiscus mealybug, hibiscus-schmierlaus, pink hibiscus mealybug,	Maconellicoccushirsutus Green, 1802
	Fishes	
1.	Amur snakehead, northern snakehead	Channaargus Cantor, 1842
2.	Grass carp	Ctenopharyngodonidella Vallencieness, 1844
3.	Common carp	Cyprinuscarpio Linnaeus, 1758
4.	American black bass	Micropterussalmoides Lacepele, 1802
5.	Pangasius, siamese or sutchicatfish, iridescent shark, Malay.	Pangasiushypophthalmus Sauvage, 1878
	Birds	
1.	Canard colvert, mallard	Anasplatyrhynchos Linnaeus, 1758
2.	Purple swamphen	Porphyrioporphyrio Linnaeus, 1758
3.	Ring-necked parakeet, rose-ringed parakeet	Psittaculakrameri Scopoli 1769

LIST OF ALIEN AND INVASIVE SPECIES REQUIRING PERMIT—*continued*

S/N	Common Name	Scientific Name

LIST OF ALIEN AND INVASIVE SPECIES REQUIRING PERMIT—*continued*

S/N	*Common Name*	*Scientific Name*
4.	San Miguelito vine, Mexican creeper, coral vine	Antigonumleptopus H. and A.
5.	Cissus	Cissusarguta Hook. f.
6.	Benghal day flower	Commelinabenghalensis L.
7.	Pinklady	Dissotisrotundifolia (SM.) Triana
8.	Spanish flag	Lantana camara L.
9.	Rough-stemmed morning glory	Merremiakentrocaulos (C.B. Clarke) Hallier f.
10.	Action plant	Mimosa pudica L.
11.	Wild maracuja	Passiflorafoetida L.

SCHEDULE VI (*Regulation* 3)

LIST OF PROHIBITED INVASIVE SPECIES

The list in this Schedule shall include :

(*a*) all species which already threaten the agro and natural ecosystems ;

(*b*) all species listed elsewhere as IAS ; and

(*c*) such other species as may from time to time be identified.

SCHEDULE VI—LIST OF PROHIBITED INVASIVE SPECIES

S/No.	*Common Name*	*Scientific Name*
	Insects	
[illegible]	[illegible]	[illegible]

SCHEDULE VI—LIST OF PROHIBITED INVASIVE SPECIES—*continued*

S/No.	Common Name	Scientific Name
	Reptiles	
1.	Afro-American house gecko	Hemidactylusmabouia Moreau De Jones, 1818.
2.	Others	
	Mammals	
1.	Gambian giant pouched rat	Cricetomysgambianus Waterhouse, 1840.
2.	Dancing red monkey,	Erythrocebuspatasz Schreber, 1775.
3.	Domestic rat	RattusrattusLinnaeus, 1758.
4.	Others	
	Aquatic Plants	
1.	Nypa palm	Nypafruticans Wurmb.
2.	Lade Koro (Yoruba)	Vossia cuspidate Griff.
3.	Water hyacinth	Eichhorniacrassipes(Mart.) Solms.
4.	Kariba weed,	Salviniamolesta Mitchell.
5.	African payal, aquarium watermoss, water fern, African pyle Salvinia	Salvinianymphelulla Desv.
6.	Varietal water hyacinth	Eichhorniadiversifolia (Vahl) Urb.
7.	Southern cattail	Typhadomingensis Pers.
8.	Lagarosiphon	Lagarosiphon cordofanus Gasp.
9.	Others	
	Vine, Grass, Herbs, Shrubs and Trees	
1.	Bitter bush	Chromolaenaodorata (L.) R.M. King & H. Robinson.
2.	Grassleaf spurge	Euphorbia graminea Jack.
3.	Acacia palida	Leucaenaleucocephala (Lam.) de Wit.
4.	Giant false sensitive plant	Mimosa invisa Colla
5.	Mexican sunflower	Tithoniadiversifolia (Hemsl.) A.Gray
6.	Typha grass	Typhadomingensis.
7.	Flamboyant tree, Flame tree, Roral Poinciana	Delonixregia(Hook.) Raf.

SCHEDULE VI—LIST OF PROHIBITED INVASIVE SPECIES—*continued*

S/No.	*Common Name*	*Scientific Name*
	Reptiles	
8.	Quick stick, Aron's rod, Growth stick	Gliricidasepium (Jack.) walp.
9.	Ebano-oriental, Rain tree,	Albizialebbeck (L.) Benth.
10.	woman's tongue tree, lebbeck, lebbek African rubber tree	Dracaena arborea (Wild.) Link.
11.	Witchweed, purple	Strigahermonthica (Del.) Benth.
12.	witchweed Witchweed	Strigaasiatica
12.	Orange plantation invasive orchid	Aerangisbiloba (Lindl.) Schltr.
13.	Mistletoe	Tapinanthusglobiferus (A.Rich.)
14.	Giant false sensitive plant	Tiegh Mimosa invisa Colla.

ISSUED at Abuja this 29th day of October, 2013.

ARC. DARIUS DICKSON ISHAKU, fnia,
Honourable Minister of Environment

EXPLANATORY NOTE

(This note does not form part of these Regulations but is intended to explain its purports)

These Regulations seek to provide a legal framework for the prevention of the decline and minimization of the modification and destruction of ecosystem, economy and human health caused by Alien and Invasive Species in Nigeria.

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

S.I. No.	Title	Page
33	National Environmental (Quarrying and Blasting Operations) Regulations, 2013	B 547-5

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S.I. No. 33 of 2013

NATIONAL ENVIRONMENTAL (QUARRYING AND BLASTING OPERATIONS) REGULATIONS, 2013

[29th October, 2013] Commencement.

In exercise of the powers conferred on me by section 34 of the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007 and all powers enabling me on that behalf, I, ARC. DARIUS DICKSON ISHAKU, fnia, Minister of Environment, hereby make the following Regulations :

PART I—GENERAL PROVISIONS

1. These Regulations shall apply to all Quarrying and Blasting Operations in Nigeria. Application.

2. The objective of these Regulations is to control the effects of quarrying and blasting operations on the environment and human health and specifically, the Regulations aim to : Objective.

(*a*) prevent environmental degradation ;

(*b*) ensure the use of environment-friendly technologies in quarrying operations ;

(*c*) sustain the carrying capacity of the Nigerian land in particular and the environment in general ;

(*d*) prevent the contamination of both surface and ground water ;

(*e*) encourage the wise use and exploitation of natural resources and the protection of the ecosystem ;

(*f*) prevent air and noise pollution ;

(*g*) ensure control and the safe use of commercial (blasting) explosives ;

(*h*) avoid any interference or obstruction of the natural drainage channel ; and

(*i*) ensure the safety of workers in the quarry and the public in general.

3. The principles listed in these Regulations shall be observed in regulating all Quarrying and Blasting Operations : Principles.

(1) The precautionary principle shall be observed - where there are threats of serious or irreversible damage, the absence of scientific certainty shall not be used as a reason for postponing cost effective measures to prevent environmental degradation ;

(2) The "*polluter-pays-principle*" shall be applied to discourage air, water and land pollution.

(3) Quarrying and blasting operations shall be conducted using the best available technologies that are environment-friendly.

(4) Extraction of rocks shall be carried out with adequate protection of the environment, the plant, man, animal and the general ecosystem.

(5) Quarry resources shall be sustainably extracted.

(6) Statutory national and international quarrying and mining bodies shall cooperate in building better practice management through sharing of information, technology and professional expertise.

(7) Adequate access to information and opportunity shall be provided for meaningful participation in planning, monitoring, ensuring compliance and encouraging best practices in quarrying operations.

(8) Post-quarrying, mine closure, land rehabilitation, resuscitation and remediation plans shall form an integral part of the pre-conditional requirements for approval to operate a quarry, the provisions of which shall be enforced by the Agency.

Environmental Impact Assessment and Environmental Audit.

4.—(1) Environmental Impact Assessment (EIA) shall be conducted for all new quarries before the commencement of operations as required by the EIA Act of 1992 and Environmental Impact Statement (EIS) submitted to the Agency.

(2) Environmental Audit (EA) shall be conducted on all existing quarries every three (3) years.

Inventory of Quarries.

5.—(1) The Agency shall collaborate with relevant Ministries, Departments, Agencies (MDAs), States and Local Governments, and all stakeholders to compile an inventory of all quarries and mines for the purpose of environmental compliance monitoring.

(2) The Agency shall collaborate with the relevant MDAs to periodically update the inventory of quarries in Nigeria.

PART II—QUARRYING OPERATION PLAN

Quarrying Operation Plan.

6. The Quarrying Operation Plan shall be an integral part of EIA and shall form a framework of action which sets out the approaches and parameters for monitoring and protection of the environment and social aspects of the quarry project from design to construction and operational stages of the project.

Scope of the Plan.

7. the scope of the plan shall include :

(*a*) Environmental Monitoring Guidelines ;

(*b*) Construction Guidelines ;

(*c*) Waste Management Plan ;

(*d*) Traffic Management Plan ;

(*e*) Health and Safety Plan ;

(*f*) Emergency Response Plan ; and

(*g*) Decommissioning Plan.

8. Mitigation measures shall form an integral part of the Quarrying Operation Plan and such measures shall include information specified in Schedule VII. Mitigation Measures.

PART III—GUIDELINES FOR QUARRYING OPERATION

9. It shall be the duty of quarry operators to pay compensation for ecological destruction as specified and as valued by the appropriate authority. Compensation for Ecological Destruction.

10. Quarrying, blasting, haulage, crushing and processing operations shall not be carried out in areas prescribed in Schedule III as Ecologically Sensitive Areas (ESAs) and Sites of Special Scientific Importance (SSSI) unless they are at least 1000m away from the quarrying and blasting areas. Ecologically Sensitive Areas (ESAs).

11. A quarry operator shall ensure : Health and Safety.

(*a*) that all field workers are equipped with Personnel Protective Equipment (PPE) for safety ;

(*b*) the provision of a designated muster point located at a strategic position ;

(*c*) the provision of functional fire hydrant ;

(*d*) the availability of health, safety and environment personnel ;

(*e*) the provision of a well-stocked first aid box ;

(*f*) the provision of standby and functioning ambulance ;

(*g*) the identification and establishment of retainership with a medical facility ;

(*h*) restriction of access to the pit or quarry ;

(*i*) the provision of safety and warning signs including speed limits not exceeding 40km/h for on-site vehicles ; and

(*j*) other safety measures.

12. Dust and Particulate Matters (PM) emitted from all operations in the quarry shall be abated and suppressed using the best available technologies. Air Pollution.

13. Noise pollution emanating from all operations in the quarry shall not exceed the maximum acceptable limit of 114 dB as set out in the National Environmental (Noise Standards and Control) Regulations, S. I. No 35 of 2009. Noise Pollution.

14. The quarry operator shall ensure that : Spill and Leak Control.

(*a*) all underground storage tanks are to have concrete lining before insertion of the tanks and all surface tanks are to have adequate bund-walls ;

(*b*) bund-walls shall be applied at all areas where operations are likely to give rise to spills ; and

(*c*) equipment shall be properly maintained and be in good working condition to minimize potential leaks from hydraulic hoses and other working components.

Environmental Management Plan.

15.—(1) The impact emanating from quarry operations shall be minimized to as low as reasonably possible or eliminated by the implementation of appropriate mitigation measures in the Environmental Management Plan (EMP).

(2) The EMP shall :

(*a*) guide the management of quarry facilities in identifying and evaluating the environmental, health and safety issues associated with their quarrying operations ;

(*b*) be used throughout the lifespan of the quarry project ;

(*c*) be regularly reviewed after every three (3) years ;

(*d*) be used as a tool by which compliance with national and international Regulations can be ensured ; and

(*e*) provide the quarry management with precedence for further environmental audits.

(3) The Management plan shall ensure that implementation of mitigation measures are efficiently monitored and evaluated.

Vehicular Emission Plan for Quarry Operations.

16. The quarry operator shall ensure that vehicles and other heavy duty equipment used on site are :

(*a*) equipped, maintained and inspected regularly to manage the risk of emissions ;

(*b*) in sound mechanical condition and repair ; and

(*c*) in accordance with the set standards of the National Environmental (Control of Vehicular Emissions from Petrol and Diesel Engines) Regulations, S.I. No. 20 of 2011 and with the provision of the National Environmental (Permitting and Licensing System) Regulations, S.I. No 29 of 2009.

PART IV—BLASTING OPERATION PLAN

Blasting Operation Plan.

17.—(1) A person intending to embark on blasting shall prepare a Blasting Operation Plan.

(2) The Blasting Operation Plan referred to in sub regulation (1) of this regulation shall contain information on the :

(*a*) limitation the operator will meet with regard to ground vibration and air blast ;

(*b*) basis for those limitations ; and

(*c*) method to be applied in controlling the adverse effect of the blasting operations, including blast monitoring system in accordance with guidelines set in Schedule VI.

Blasting Below Ground Level.

18. A person shall not carry out quarrying or blasting of rocks below ground level unless with a permit duly obtained from the relevant authority.

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

NATIONAL ENVIRONMENTAL (QUARRYING AND BLASTING OPERATIONS) REGULATIONS, 2013

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PART V—OPERATING MECHANISMS AND GUIDELINES FOR BLASTING

19. Every quarry and blasting operation shall register with the Agency in line with Schedule I, upon the commencement of these Regulations.

Registration with the Agency.

20. A person shall not locate a quarry or engage in blasting within three kilometers (3km) of any existing residential, commercial or industrial area.

Minimum Safe Distance from Residence.

21. A person shall not carry out blasting, haulage, crushing, and processing or felling of any rock, outcrop or whatever name called, for any purpose, without approval or a permit from the relevant authority.

Prohibition of Blasting or Felling of Rock.

22.—(1) A person shall not blast in such a way that the impact of such blast will cause any form of discomfort or nuisance to the public and residents within 1,000 meters from the epicenter of the site or users of the roads thereof.

Act of Blasting or Felling.

(2) Subject to the provisions of these Regulations, the act of blasting shall be complete, whether or not the alleged act is preceded or accompanied with vibration, noise, air over pressure, fly rock, dust, fumes, or that the impact is felt within 1,000 meters from the site or epicenter of the blasting.

23. Any person carrying out the act of blasting shall comply with the guidelines listed in this regulation.

Blasting Guidelines.

(1) All relevant existing guidelines including the Explosives Act and Regulations made thereunder shall be adhered to.

(2) Blasting operations shall not be carried out at the rush hours of 7am – 10am, and 5pm and beyond.

(3) A person shall not engage in blasting during weekends, except for incidental blasting.

(4) Charge Loading Density (CLD) of explosives shall not exceed 35 kilogrammes per hole and 3 metric tons per blast.

(5) The depth and space of blasting (Blast Design Parameters) shall comply with :

(*a*) the depth of :

(*i*) 8m-10m, for commercial blasting, and

(*ii*) 8m, for outcrop blasting ;

(*b*) spacing- where the distance between the drill-holes or charges in the same row shall not exceed 1.5m.

(6) The adjoining community shall be initially informed at least 48 hours prior to any type of blasting operation through the mass media and augmented locally by the use of siren, announcement, letters, warning signs and other means deemed appropriate to convey an impending operation.

(7) Relay delays shall be used to control the vibration as well as limiting the transmission of energy below the damaging levels at any existing structure.

(8) The delay pattern shall be created to provide the energy relief immediately down the ditch in preference to a horizontal direction.

(9) The main type of delays shall be 17 milliseconds or 42 milliseconds and shall be environment-friendly .

(10) The amount of explosives used in each hole shall be limited to the manufacturer's recommendations and specifications, taking into account sub-regulation (4) of this regulation.

(11) Down hole delays shall be used where they are needed to meet specifications on maximum kilogram per delay allowed.

PART VI—POST QUARRYING PLAN

Post Quarrying Plan.

24.—(1) The quarry operator shall design the Post Quarrying Plan concurrently with reclamation such as post quarrying surface topography using available overburden rock mass, including sub-soil and top-soils.

(2) The Post Mining and Quarrying Remediation Planning shall form an integral part of the Quarry Plan before any EIA Certification.

Post Closure Ecological Management Plan.

25. A Post Closure Ecological Management Plan shall be developed by the operator containing information specified in Schedule V.

Decommissioning Plan.

26. A Decommissioning Plan of a quarry facility shall ensure that :

(*a*) all equipment in the quarry, serviceable and unserviceable, are withdrawn safely and their withdrawal is sequential without any disturbance ;

(*b*) surface water bodies are protected during the process of reclamation to prevent pollution of such water ;

(*c*) underground water bodies are regenerated properly to facilitate reactivation of aquifers and water table ; and

(*d*) the entire process of decommissioning shall be aimed at facilitating the ecological restoration and utilization of land in the post quarrying period.

Perimeter Fencing of Closed Quarry.

27. At the closure of the quarry operations, the Operator shall fence the site using wire gauze and the area put under lock.

Closure and Restoration Plan.

28.—(1) A preliminary closure and restoration plan shall be developed by quarries subject to review by the relevant regulatory bodies.

(2) The plan shall consider all technically feasible options for restoration, decommissioning and closure, including alternative uses for assets and be in compliance with Government Regulations.

(3) The considerations referred to in sub-regulation (2) of this regulation shall include :

(*a*) restoration of land to conditions capable of prior land use, equivalent uses or environmentally-acceptable uses ;

(*b*) use of overburden and topsoil for reclamation ;

(*c*) re-contouring of slopes of more than 300 meters long to minimize run-offs ;

(*d*) contouring of slopes to minimize erosion and run-offs ; and

(*e*) planting of vegetation to prevent erosion and encourage self-sustaining development of a productive ecosystem on the reclaimed land.

Control of Stagnant Water Pools.

29.—(1) A quarry operator shall adopt the following measures to control stagnant water :

(*a*) de-watering process ;

(*b*) diversion system ;

(*c*) containment ponds ;

(*d*) groundwater pumping systems ;

(*e*) surface drainage systems ; and

(*f*) surface barriers.

(2) Collection, recycling and treatment of stagnant water for various uses shall form part of the Environmental Management Plan.

Rehabilitation Plan.

30. The Quarry Rehabilitation Plan shall address all the social and environmental issues, which may arise as a result of the impacts of quarrying and other associated activities, and as specified in Schedule IV of these Regulations.

Socio-Economic and Ecological Responsibilities.

31. The quarry operator shall ensure that the Rehabilitation Plan takes cognizance of the following :

(*a*) societal issues such as displacement, loss of livelihood, disparity in income, quality of life and development of basic facilities and their availability to the people ;

(*b*) management of soils and overburden which shall be used for backfilling during reclamation and rehabilitation ;

(*c*) the design, planning and management of pit slopes in the quarries shall be used for safety and conservation of land and economics of the quarrying activities ;

(*d*) development of post mining land uses for forest land, agricultural land and land for other uses ;

(*e*) converting impacts and quarrying remnants into resources for development of surface water bodies, improvement in surface drainage and wise use of the soils in the quarried area ;

(*f*) decommissioning of quarrying activities ; and

(*g*) proper management and handling of hazardous materials and waste such as rocks, old conveyor belts, used tyres, scraps of equipment and machines, batteries, among others, as stated in the National Environmental (Sanitation and Waste Control) Regulations, S.I. No. 28 of 2009.

Restoration.

32. A quarry operator shall provide a guarantee to the relevant regulatory body to restore the degraded areas in respect of which quarry operation has been, is being, or is to be carried out.

Reclamation.

33. A quarry operator shall carry out land reclamation on all mined out areas that have been exploited as a result of the quarrying operations, as specified in Schedule IV of these Regulations.

Specific Action for Reclamation and Rehabilitation.

34. A quarry operator shall put in place Specific Action for Reclamation and Rehabilitation as specified in Schedule IV to these Regulations.

PART VII—MISCELLANEOUS RULES

Permit.

35.—(1) All applications for permits including revocation of such permits after issuance, shall comply with the procedures provided under the provision of the National Environmental (Permitting and Licensing System) Regulations, S.I. No. 29 of 2009.

(2) No later than six (6) months after the commencement of these Regulations, all quarries shall apply to the Agency and obtain permit as in Schedule II to these Regulations for the following :

(*a*) air quality ;

(*b*) hazardous chemicals and substances ; and

(*c*) waste or stagnant water effluent.

Enforcement Notice.

36.—(1) An enforcement notice shall be served on an operator where the Agency is of the opinion that the operator has contravened, is contravening or is likely to contravene any condition of the permit.

(2) An enforcement notice shall specify the :

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

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

(*c*) period within which those steps must be taken.

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

Enforcement Notice Reminder.

37.—(1) Any operator who fails to comply with the terms of the enforcement notice issued pursuant to regulation 36 of these Regulations shall attract the service of a second notice.

(2) Failure to comply with the second notice or reminder within the specified time limit will lead to the issuance of a suspension notice, sealing of the facility, premises or any other punitive action as may be necessary.

Mode of Delivery.

38. Mode of delivery of the enforcement notice shall be by hand, registered post or courier, electronic transmission, or be pasted at the facility or registered premises of the organization.

Suspension of Permit.

39.—(1) Where a suspension notice is served under these Regulations, the permit shall upon the service of such notice, cease to have effect as stated in the notice.

(2) The Agency may withdraw a suspension notice after verification of compliance.

Equity.

40. Every facility shall be given equal treatment without preference as far as inspection and enforcement of relevant laws are concerned.

Offences.

41. Contravention or failure to comply with any of the provisions in these Regulations shall constitute an offence.

Penalties.

42.—(1) Any person convicted of an offence under these Regulations shall be liable to a fine of not less than One Million Naira (₦1,000,000.00) or imprisonment for a term not exceeding two years or to both such fine and imprisonment and an additional fine of Twenty Thousand Naira (₦20,000.00) for every day the offence subsists.

(2) Where an offence is committed by a Body Corporate, it shall upon conviction, be liable to a fine not less than Ten Million Naira (₦10,000,000.00) and an additional fine of Two Hundred Thousand Naira (₦200,000.00) for every day the offence subsists.

(3) Blasting of rock outcrop in excess of one (1) metre below ground level shall attract penalty as provided in sub-regulations (1) and (2) of this regulation as appropriate, including payment of Five Hundred Thousand Naira (₦500,000.00) per cubic metre below the specified depth.

(4) Blasting of rock mass occurring below the earth surface in excess of three (3) metres shall attract penalty as provided in sub-regulations (1) and (2)

of this regulation as appropriate, including payment of Five Hundred Thousand Naira only (₦500,000.00) per cubic metre below the specified depth.

PART VIII—INTERPRETATION

Interpretation.

43. In these Regulations, unless the context otherwise indicates, a word or expression to which a meaning has been assigned in these Regulations has the same meaning :

"*act of blasting*" means carry out blasting or felling of any structure if the person uses or causes to be used, any explosive or chemical/mechanical device, to crush, implode, explode or disintegrate any rock, outcrop or structure of similar character or design, whether natural or man-made ;

"*adjoining community*" means host community next to or sharing common boundary with a quarry ;

"*Agency*" means National Environmental Standards and Regulations Enforcement Agency ;

"*appropriate*" means suitable for the occasion or circumstance ;

"*animal*" means living organism that is distinguished from plant by independent movement and responsive sense organs ;

"*authority*" means an official body set up by government to administer mining permits, approval, determine mining policies ;

"*blast*" means a sudden rush of air caused by an explosion to disintegrate rock ;

"*body corporate*" means group of people legally recognised to act as one body ;

"*borehole*" means hole drilled into the rock to charge with explosives ;

"*carrying capacity*" means sustaining the ecological function of the environment ;

"*charge load density*" (CLD) means the amount of detonator charge per hole ;

"*closure plan*" means quarry management plan for ensuring ecological restoration at the closure of the quarry ;

"*crush*" means to grind rock into smaller aggregates ;

"*commercial blasting*" means blasting in large quantities ;

"*commercial explosives*" means industrial explosive other than for military use ;

"*construction*" means building of structures such as houses, bridges, roads or malls ;

"*conservation*" means preservation, protection or restoration of the natural environment, natural ecosystems, vegetation, or wildlife ;

"*decommissioning plan*" means quarry management plan for removal of quarry equipment from site after quarry closure ;

"*detonator*" means an initiator for explosives that contains a charge of high explosive fired by means of a flame, spark, electric current or shock tube ;

"*disintegrate*" means breaking into fragment or smaller pieces ;

"*ecosystem*" means plants, animals and other organisms interacting with each other and with their environment in such a way as to perpetuate them more or less indefinitely ;

"*Ecological Sensitive Areas (ESAs)*" means an area identified, designated or protected by law or body as ecologically significant or important or which needs special protection because of its landscape, wildlife or historical values ;

"*ecological disturbance*" means disturbance, displacement or endangering living organism and their interaction with the natural or development environment ;

"*effluent*" means liquid waste discharge from quarry facility ;

"*environment-friendly technology*" means technology designed to minimise harm to the environment and human health ;

"*excavation*" means any place at the quarry where minerals are or have been extracted and includes the ground, faces or sides of the quarry ;

"*explosives*" means explosive articles or explosive substances ;

"*extraction*" means process of removing rock mineral from the earth ;

"*emission*" means releasing of harmful substance into the atmosphere ;

"*enforcement notice*" means letters of compliance concerns or abatement notices informing the quarry management of observed violations and the need to remedy same with time limit, failure of which, the quarry shall be sanctioned as provided in these Regulations ;

"*environmental degradation*" means the deterioration of the environment through degradation and contamination of resources, such as air, water, land and vegetation ;

"*Environmental Audit (EA)" means an assessment of facilities'* compliance with environmental laws and regulations ;

"*Environmental Impact Assessment (EIA)*" means a formal procedure through which decision makers gather environmental information about a project and take this information into account in decision making. The EIA gives the likely impacts of the project on the environment and proposed mitigation measures to reduce the significance of those impacts ;

"*Environmental Management Plan (EMP)*" means quarry management guide in identifying and evaluating the environment, health and safety issues associated with quarry operation ;

"*epicentre*" means the exact location on the earth surface, directly above the focus of an earthquake or explosion ;

"*fauna*" means group of animals found in a particular ecosystem ;

"*flora*" means group of plants found in a particular ecosystem ;

"*fume*" means unpleasant or harmful smoke, gas, or vapour ;

"*hazard*" in relation to an excavation or tip means having the potential to cause harm to the health and safety of any person ;

"*hillock*" means small hill or mound ;

"*implode*" means collapse inward with force as a result of external pressure ;

"*incidental blasting*" means blasting of any rock/outcrop that was encountered in the process of construction activities ;

"*land degradation*" means loss or decline in the quality of land and its productivity caused by soil erosion, deforestation, desertification, flooding etc ;

"*landscape*" means the visible features of an area of land, including physical elements, such as landforms and living elements of fauna and flora ;

"*landslide*" means the movement of soil and bedrock downhill in response to gravity ;

"*overburden*" means top soils removed in order to access mineral body ;

"*pollution*" means undesirable state of the environment being contaminated with harmful substances as a consequence of human activities ;

"*particulate*" means a substance that consists of separate particles especially airborne pollution ;

"*polluter-pays-principle*" means principle that a company or person that causes pollution should pay for the cost of removing it or provide compensation to those who have been affected by it ;

"*personnel protective equipment*" means safety materials such as boots, eye and ear protectors, hand gloves, coveralls etc used by workers during operation to protect them from injury ;

"*public road*" means a highway maintainable at public expense ;

"*quarry*" means :

(1) an excavation or a system of excavations made for the purpose of or in connection with, the extraction of minerals, or

(2) any reclamation site from which minerals are being extracted for sale or further use and for the purpose of these Regulations, the following shall be deemed to form part of a quarry :

(*a*) so much of the surface (including buildings, structures and works thereon) surrounding or adjacent to the quarry, which is occupied for the purpose of, or in connection with :

(*i*) the working of the quarry,

(*ii*) the consumption, use, storage, preparation for sale of minerals or products for sale of the minerals or products thereof extracted from the quarry, or

(*iii*) the removal from the quarry of any substance extracted from the quarry ; and

(*b*) any trip used in conjunction or connection with the operation of the quarry, or situated on the premises occupied by the operator of the quarry ;

"*quarry*" does not include an excavation or system of excavation made for the purpose of or in connection with the extraction of such minerals or products of minerals where the exclusive purpose of that extraction to enable the minerals or products of minerals so extracted is to be used for the purpose of carrying out any building, civil engineering or engineering construction work on the site at which the extraction has taken place ;

"*quarry operation*" means the operations and work carried out in the course of rock exploitation or any form of activities for the extraction of mineral resources for construction ;

"*quarry operator*" means the person in overall control of the working of the quarry or an owner or licensed owner of the quarry, which is an individual or body corporate or the manager of the quarry ;

"*reclamation site*" means a site where the extraction of minerals forms part of the process whereby that site is restored for agricultural, industrial or domestic use from which minerals are being extracted for sale or further use ;

"*rehabilitation*" means restoration of mined site to its former good condition ;

"*rehabilitation plan*" means a quarry management plan to restore mine site to its former good condition ;

"*restoration*" means repair of quarried area to its earlier or better condition ;

"*resuscitate*" means to revive the mined land to its original status through re-vegetation and reforestation ;

"*remediation*" means to reverse environmental damage caused by quarrying operation ;

"*rock*" means a large stone or boulder forming a heap of consolidated or unconsolidated materials such as granite, sandstone etc ;

"*Site of Special Scientific Importance*" means an area designated for scientific studies or a preserved site for heritage ;

"*solid waste*" means unwanted solid material within a quarry site ;

"*statutory*" means established laws or regulations guiding quarry and quarrying operations ;

"*stone*" means small pieces of rock of any shape ;

"*sustainable use*" means the present use which does not compromise the right to use the same resource by future generations ;

"*unauthorized*" means not permitted to carry out or to do something or be somewhere by law ;

"*vehicle*" means any mechanically propelled vehicle (including mechanically propelled plant) ;

"*vehicular emission*" means harmful exhaust of gases from vehicles and other heavy duty equipment in the quarry site ;

"*vibration*" means the process of moving back and forth very rapidly during quarrying operations ;

"*water body*" means any watery environment including ocean, marine, estuary, wetlands, rivers, dams, lakes, ponds and mine pits ;

Citation.

44. These Regulations may be cited as National Environmental (Quarrying and Blasting Operations) Regulations, 2013.

4. PROJECT DESCRIPTION :

Land use for which the applicant is seeking a permit (Tick one)

a. [ ] Permitted Use

b. [ ] Regulated Use

c. [ ] Special Exception

Describe the proposed activity and its purpose.....

.....

.....

Proposed encroachment of Built-up Area (in metres) :.....
Proposed encroachment of Farm Settlement Area (in metres) :.....
Proposed encroachment of other facilities (in metres) :

(*i*).....

(*ii*).....

Proposed encroachment of Regulated Special Area (in metres) :.....
Proposed alteration of Watercourse (in hectares) :.....
Air pollution control techniques proposed :.....
Soil conservation techniques proposed :.....

Disturbance of designated Watershed [ ] No [ ] Yes

A. BLAST-INDUCED HAZARDS

1.	Number of complainant(s)	Male [ ]	Female [ ]	
2.	Ground vibration	Yes [ ]	No	[ ]
3.	Noise overpressure	Yes [ ]	No	[ ]
4.	Air overpressure	Yes [ ]	No	[ ]

B. DAMAGE CRITERIA

1.	No appreciable damage	Yes [ ]	No [ ]
2.	Threshold damage	Yes [ ]	No [ ]
3.	Minor damage	Yes [ ]	No [ ]
4.	Major damage	Yes [ ]	No [ ]

C. TYPES OF ROCK

1. .....

2. .....

3. .....

4. .....

SCHEDULE I

APPLICATION FORM FOR REGISTRATION OF QUARRYING OPERATIONS

(Tick where applicable)

Permitted Use [ ] Regulated Use [ ] Special Exception [ ]

1. APPLICANT :

Name .....

Signature.....

Address.....

City.....

State .....

Local Government Area.....

Zip Code.....

Telephone No : [ ] Home ..... [ ] Work.....

2. PROPERTY OWNER(S) :

Name.....

Signature.....

Address.....

City.....

State.....

Local Government Area.....

Zip .....

Telephone No.: [ ] Home..... [ ] Work.....

3. GENERAL INFORMATION ABOUT THE FACILITY :

Address.....

Location (GPS) : Lat.....Long.....

Assessor's Map No.....

Assessor's Lot No(s).. .....

Street of Access.....

Name of Watercourse or Water Body.....

Total Area of Lot(s).....

D. QUANTITY OF TONS PER DAY..... (Tonne)

E. Distance to the nearest settlement in ..... (metres)

F. Types of detonator being used : Electric [ ] Non-Electric [ ]

Permit Number.....

Date applied for.....

Disposition.....

.....

Application No.....

Date Filed.....

Approved.....

Denied.....

SCHEDULE II

PERMIT TO DISCHARGE EFFLUENTS, OTHER WASTES AND BIODIVERSITY DISTURBANCES :

1. Permit to discharge waste : Yes [ ] No [ ]
2. Permit for Water/Air Pollution : Yes [ ] No [ ]
3. Permit for Biodiversity Disturbances : Yes [ ] No [ ]

Permit No.....

Name.....

Address.....

Having Satisfied all the requirements on the Application Form and with other relevant permits, you are hereby permitted to carry out.....

Activities on this..... (in metres or hectares) of Land.

Located at.....

This permit is granted valid from (date) ..... to.....and subjected to the following conditions :

(*i*).....

(*ii*).....

(*iii*).....

(*iv*).....

(*v*).....

Date.....

Name/Signature.....

SCHEDULE III

Ecologically Sensitive Areas (ESAs)

1. Valleys of National Importance.
2. Hills of National Importance.
3. Lagoon, Sea and Ocean Coast.
4. Lake and Bay Shoreline.
5. Marshes and Swampy Land.
6. Mountain Peak.
7. Wetlands of National Importance.
8. River Banks.
9. Estuaries (Sparsely vegetated-beach/Spit).
10. Wildlife Value (National Parks and Wildlife Sensitive Areas).
11. Dam Areas.
12. Sanctuaries.
13. Heritage Sites.
14. Any designated area by the Agency and which needs special protection because of its landscape, wildlife or historical importance.

SCHEDULE IV

Specific Action for Reclamation and Rehabilitation

(1) Back filling of burrow pits with quantity of overburden and top soil.

(2) Assessment of post mining land use for bringing the land back to primary uses.

(3) Mining activities are to be designed in a manner to minimize erosion potential.

(4) Replant the trees and other plants to the extent possible to minimize loss of vegetation.

(5) Re-vegetation plan should address the local species including grasses, shrubs and spacing of trees.

SCHEDULE V

Ecological Management Plan

(1) An inventory of fauna and flora existing in the Quarry areas through survey and consultation with the local community .

(2) Development of flora bank for replanting after closure.

(3) Conservation of wildlife for their protection, preservation and perpetuation of species, especially endangered and rare ones, in their natural habitats.

SCHEDULE VI

Guidelines for Preparation of Blasting Plan

1. The guidelines are in accordance with the provisions of regulation 16 of these Regulations, and a person shall :

(*a*) conduct risk management process before the use of explosives, to identify the hazards that may arise or interact ;

(*b*) put in place written procedures for the blasting to include :

(*i*) maintenance of equipment used for charging and firing ;

(*ii*) cleaning of blast holes before charging ;

(*iii*) adherence to specific blasting times ;

(*iv*) adequate warning and restriction of persons to safe areas during blasting ;

(*v*) a safe distance between the position where the firing is done and the location of the effect of the blasts not less than 200m ;

(*vi*) whether it is safe to re-enter the blasted area ;

(*vii*) examination of the blasted area and blast hole remnants ; and

(*viii*) communication in-between shifts on information about charging and blasted locations.

2. A person blasting shall ensure that :

(*a*) no blasting is done within 10 metres of existing pipelines or other structures ;

(*b*) all blasts located along adjacent power line rights-of-way are conducted in a manner that will not cause damage to the power company's property and other facilities ;

(*c*) the blast area is backfilled or covered by blasting mats and/or other materials as required to protect nearby existing facilities, structures, highways, railroads or significant natural resources from thrown rock fragments ; and

(*d*) a medical personnel and medical kits should be on-site as part of blasting preparation in case of emergency.

3. All Quarries shall ensure that warning signs indicating the blast area are erected and maintained at all approaches to the blast area.

4. Warning sign letterings shall be a minimum of 10cm in height on a contrasting background.

5. Warning signs shall comply with the requirements of the Local Government Area Authority (LGA) where the quarrying is located.

6. Flaggers shall be stationed on all roadways passing within 300m of the blast area and be responsible to stop all traffic during blasting operations.

7. All personnel not involved in the actual blast shall maintain a distance of at least 300m and workers involved in the actual blast 200m from the time the blast signal is given until the "All Clear Signals" has been sounded.

8. An audible blasting signal (air horn or siren) shall be used.

9. The following blast signals will be used during blasting :

(*a*) Warning Signal: A one minute series of long horn or siren sounds will be made 5 minutes prior to the blast ;

(*b*) Blast Signal: A series of short horn or siren sounds will be made one (1) minute prior to the blast ; and

(*c*) All Clear Signal: A prolonged horn or siren sound following the inspection of the blast area.

10. The plan set out hereunder shall be observed in controlling fly rock during blasting :

(*a*) all shots/holes loading activities shall be carefully designed and supervised by a Licensed Blaster to control fly rock.

(*b*) the Blaster shall communicate with the drillers to obtain geological information for each shot.

(*c*) matting and/or padding shall be utilized at the discretion of the Blaster.

(*d*) a good quality, non-bridging stemming material that completely fills any void in the drill hole shall also be used to reduce the amount of fly rock.

(*e*) a minus 2.42cm crushed rock shall be used in conformity with international best practices.

11. All quarrying and blasting operations shall be conducted in a manner that :

(*a*) all residents within 1000m of the blast are notified (24 hours) before the blast day ;

(*b*) all residents within 200m of the blasting operation shall be given five days' notice of the operation and be reminded to evacuate their residence an hour before loading and blasting and one hour following the blast ;

(*c*) necessary measures are taken to exclude livestock from the blasting area ; and

(*d*) during the normal safety check prior to blasting, the area shall be checked for both livestock and wildlife.

SCHEDULE VII

MITIGATION MEASURES FOR QUARRYING PLAN

(1) Compensation of affected persons in land acquisition.

(2) Stockpiling for subsequent uses of loss of vegetation and humus soil.

(3) Provision of roads/paths for pedestrian and vehicles.

(4) Development and designation of dump sites and stockpile sites.

(5) Safety measures along haulage routes.

(6) Transported material shall be covered with trampolines during transportation.

(7) Maintenance of vehicles to ensure efficiency and reduce emission levels.

(8)Waste management.

(9) Pollution control measures.

(10) Safety and Warning signs shall be installed for the duration of construction activities.

(11) Land reclamation measures.

ISSUED at Abuja this 29th day of October, 2013.

ARC. DARIUS DICKSON ISHAKU, fnia,
Honourable Minister of Environment

EXPLANATORY NOTE

(This note does not form part of the above Regulations but is intended to explain its purport)

These Regulations seek to control and regulate Quarrying and Blasting Operations and their adverse effects on the Environment and Human Health.

Extraordinary

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

NATIONAL ENVIRONMENTAL (PULP AND PAPER, WOOD AND WOOD PRODUCTS SECTOR) REGULATIONS, 2013

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NATIONAL ENVIRONMENTAL (PULP AND PAPER, WOOD AND WOOD PRODUCTS SECTOR) REGULATIONS, 2013

[29*th October*, 2013] Commencement.

In exercise of the powers conferred on me by section 34 of the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007, and all other powers enabling me in that behalf, I, ARC. DARIUS DICKSON ISHAKU, fnia, Honourable Minister of Environment hereby make the following Regulations—

PART I—GENERAL PROVISIONS

1. These Regulations seek to prevent and minimize pollution from all operations and ancillary activities from this sector in the Nigerian Environment. Purpose.

2. A facility, body corporate or organization shall be given equal treatment in the inspection and enforcement of relevant laws. Environmental Governance.

3.—(1) A facility shall submit to the Agency an : Planning.

(*a*) Environmental Impact Statement (EIS) arising from the Environmental Impact Assessment (EIA) for new projects or modification including expansion of existing ones before commencement of activity ;

(*b*) Environmental Audit Report (EAR) for existing industries every three years and Environmental Audits shall be conducted by external consultants accredited by NESREA ; and

(*c*) Environmental Management Plan (EMP) as contained in Schedule XIII to these Regulations.

(2) A facility, body corporate or organisation in this sector shall apply up-to-date, efficient 'cleaner production' technologies to minimize pollution to the barest degree practicable.

(3) Facility's emphasis on environmental planning shall be to prevent, reduce or eliminate pollutants at source and less emphasis shall only be placed on external hardware which are end-of-pipe mechanisms.

4. A facility, body corporate or organization shall ensure that precautionary principles for treated wood are carried out as prescribed in Schedule VII to these Regulations. Precautionary Principle.

5.—(1) A facility, body corporate or organization shall plan and set up measures to combat pollution hazards in the event of an emergency. Emergency Response Plan.

(2) A facility, body corporate or organization shall for the purposes of sub-regulation (1) of this regulation, have an emergency plan and a stock of pollution response equipment which shall be readily accessible and available to combat pollution hazards in the event of accidental discharges in line with Schedule XII to these Regulations.

(3) A facility, body corporate or organization shall put in place a functional Emergency Response Plan which shall describe measures to be taken to prevent any deposit of a deleterious substance out of the normal course of events or to mitigate the effects of such a deposit.

(4) The Emergency procedures mentioned under sub-regulation (3) of this regulation shall include such details as prescribed in Schedule XII to these Regulations.

(5) An updated emergency response plan shall be prepared not later than January 31st of each calendar year.

Pollution Abatement Equipment.

6.—(1) A facility, body corporate or organization shall install anti-pollution equipment for the detoxification of effluent, emissions and chemicals emanating from the facility to meet the prescribed effluent and emissions permissible limits.

(2) An installation made pursuant to sub-regulation (1) of this regulation shall be based on the best practicable environmental option, cleaner production and green technologies to reduce pollution to meet with the minimum national standards as may be certified by the Agency.

Polluter Pays Principle.

7.—(1) The Polluter-Pays-Principle shall apply to every facility that pollutes the environment in the course of their operations.

(2) The collection, treatment, transportation and final disposal of wastes shall be the responsibility of the facility generating the wastes within the specified standards and guidelines.

(3) In the event of an incidence resulting in an adverse impact on the environment whether socio-economic or health wise, the facility shall be responsible for :

(*a*) the cost of damage assessment ;

(*b*) damage control and clean–up ;

(*c*) remediation ; and

(*d*) reclamation or restoration.

Best Practices and Waste Minimisation.

8.—(1) A facility, body corporate or organization shall ensure the adoption of the 5Rs-Reduce, Reuse, Recover, Repair and Recycle, in the management of waste generated in the course of production.

(2) A facility, body corporate or organisation shall implement programmes on best practices as prescribed in Schedule IV to these Regulations or assign the responsibility for pollution control to a person or body corporate accredited by the Agency.

(3) Pollution prevention programmes shall focus on reduction of use of water and more efficient use of process chemicals.

(4) All recyclables, damaged and disused packaging materials including but not limited to plastics, paper, wood shall be recycled.

(5) A facility shall ensure that no employee is exposed to any hazardous condition in the work place without awareness.

(6) A facility shall adopt systems for collection and recycling of temporary and accidental discharges from process water spills.

(7) A facility shall ensure sufficient and balanced volumes of pulp storage, broke storage and white water storage tanks to avoid or reduce process water discharges.

(8) A facility shall ensure that contaminated storm water is combined with process effluent for treatment.

Waste Utilisation and Disposal.

9. A facility, body corporate or organization shall ensure the adoption of integrated waste management practices and waste disposal in an environmentally sound manner as prescribed in Schedule VI to these Regulations.

Pollution Prevention and Control Techniques.

10. A facility, body corporate or organization shall control particulate matter emissions as prescribed in Schedule VIII to these Regulations.

Global Warming Control.

11. A facility, body corporate or organisation shall prepare a voluntary action programme for mitigation and adaptation, and such measures shall take into account energy-saving and Best Available Technology (BAT) in their production processes.

Volatile Organic Compounds.

12. A facility, body corporate or organisation shall control Volatile Organic Compounds (VOCs) as prescribed in Schedule X to these Regulations.

Pollution Control Organisational System.

13.—(1) A facility, body corporate or organization shall put in place organizational system for pollution control and shall assign Environmental Pollution Control and Prevention duties to Environmental Managers as prescribed in the Schedule XVI to these Regulations.

(2) Capacity building workshops including courses on pollution prevention, control and assessments shall be conducted to assist Environmental Managers to obtain certification by the Agency as prescribed in Schedule XVI to these Regulations.

Wood and Wood Product Handling and Processing.

14.—(1) A facility, body corporate or organization shall ensure that :

(*a*) wood logs are stacked in an environment-friendly manner ;

(*b*) equipment used to manufacture wood products are designed or fitted with protective devices for effective guarding or screening to protect workers from flying chips, debris or hazards in the event of failure of

equipment or component ;

(*c*) every log-haul has at least one walkway fitted with handrails and sufficient weight to enable workers to stand clear of logs in the log haul, unless clearly impracticable ; and

(*d*) the height of any excavated or stable face of a chip, hog fuel or sawdust pile does not exceed the safe reach of the mobile equipment being used to handle the material.

Occupational Risk Control and Safety Measures.

15. A facility, body corporate or organization shall ensure that the guidelines in Schedule IX to these Regulations and the following are adhered to :

(*a*) process controls, including automatic digester capping valves, local exhaust at batch digesters are provided to prevent gas leakages from negative pressure in recovery boilers, sulphite, sulphur dioxide and acid towers ;

(*b*) gas monitors with alarms are installed where leakages or generation of hazardous gases may occur ;

(*c*) contaminated clothing with sodium chlorate spills are kept wet until laundered ;

(*d*) non-skid walking surfaces that allow drainage and quick clean up of spills are used ;

(*e*) conveyor drums, drive belts, pulleys, circular saws , rotator debarkers, rollers on paper machines and shredder feed rolls are fitted with safety guards or interlocks capable of preventing access to moving parts ;

(*f*) compressed air is not used in clearing wood dust and waste paper ;

(*g*) equipment are shut down and locked out before maintenance, cleaning or repairs are undertaken ; and

(*h*) all mills and plants are equipped with adequate and accessible fire fighting equipment including automatic sprinkler systems for mills operating in buildings that are more than three floors and to ensure periodic medical checkup for all workers twice yearly.

Extended Producer Responsibility Programme.

16.—(1) A manufacturer or importer shall subscribe to an Extended Producer Responsibility Programme as prescribed in Schedule XIV to these Regulations.

(2) The Agency shall work with the sector to achieve the Extended Producer Responsibility Program within a period of three years from the commencement of these Regulations.

Chemical Usage.

17.—(1) A facility, body corporate or organization shall submit, on a quarterly basis to the nearest office of the Agency the following information :

(*a*) list of chemicals used in the manufacture of its products including Material Safety Data Sheet (MSDS) ;

(*b*) details of stored chemicals and storage conditions ;

(*c*) list of obsolete, expired or abandoned chemicals and the proposed plan for their environmentally sound management ;

(*d*) the local sources of listed precursor chemicals utilized ; and

(*e*) the sources of listed precursor chemicals imported by the facility, organization or body corporate.

(2) A facility, body corporate or organization shall ensure the :

(*a*) minimization of the use of organic solvents ; and

(*b*) use of ozone depleting substances which shall be controlled in accordance with the provisions of the National Environmental (Ozone Layer Protection) Regulations, 2009.

(3) A facility, body corporate or organization shall ensure :

(*a*) the elimination or decrease in the formation of dioxins and furans in wood and non-wood bleaching processes ;

(*b*) the removal of hexenuronic acids by mild hydrolysis for hardwood pulp ;

(*c*) the collection and recycling of spent cooking liquor spills ;

(*d*) the neutralization of spent cooking liquor before evaporation and reuse of condensates in order to reduce dissolved organics ;

(*e*) chemical recovery in sulphite as well as Kraft mills ; and

(*f*) that current database of all chemicals used and manufactured in the mill are maintained.

Restricted Chemicals.

18. Use of restricted chemicals listed under Schedule XI to these Regulations shall be with a permit from the Agency.

Ink Usage.

19. A facility, body corporate or organisation shall ensure :

(*a*) the use of non-hazardous chemical-based ink ; and

(*b*) that Extended Producer Responsibility applies to the manufacturing, importation and distribution of the ink.

Ink Waste Reduction Alternatives and Disposal.

20 A facility, body corporate or organization shall ensure that :

(*a*) best environmental practices for ink waste reduction alternatives are as prescribed in Schedule V to these Regulations ; and

(*b*) ink waste, hazardous and non-hazardous, are recycled or disposed off in an environmentally sound manner, in strict compliance with these Regulations.

Management of Chemicals, Oil Station and Fuel Dumpsite.

21. A facility, body corporate or organisation shall :

(*a*) ensure that there is no contamination arising from leakage of surface or underground oil, fuel or chemicals storage tank likely to cause pollution of the environment including surface and ground water ;

(*b*) have an impermeable base for all ancillary equipment and provide an appropriate bund wall in the event of any unanticipated discharge or spillage ; and

(*c*) install underground tanks and fuel dumps with leak detection equipment and shall regularly inspect for leakages to prevent seepage into ground water.

Community Relations.

22. A facility shall have a sustainable community relations programme as part of demonstration of compliance with corporate social responsibility.

Effluent Limitation Standards.

23. —(1) The National Environmental Standards in relation to effluent limitation for the Pulp and Paper Sector shall be as prescribed in Schedule I to these Regulations ;

(2) An effluent shall be deemed to be polluted where :

(*a*) the concentration of any of its parameters exceeds the permissible limits in Schedule I to these Regulations ; and

(*b*) it is discharged from a facility without appropriate pre-treatment.

(3) The effluent described under sub-regulation (2) of this regulation shall not be discharged from a facility, without pre-treatment to National Standards as prescribed in Schedule I to these Regulations.

Restriction on the Release of Toxic Effluent.

24.—(1) A facility, body corporate or organization shall not discharge effluent onto land, into a watercourse or water body unless the facility ensures that the parameters of the effluent do not exceed the permissible limits as prescribed in Schedule I to these Regulations.

(2) Notwithstanding the provision of sub-regulation (1) of this regulation, any facility, body corporate or organization using an influent, in which the concentration of each of the parameters exceeds the permissible limit as prescribed in schedule I to these Regulations, shall ensure that the concentration or value of the parameters of the effluent conforms to the prescribed standards.

(3) Disposal of hazardous waste on water or land without prior treatment is prohibited.

Effluent Treatment.

25.—(1) A facility, body corporate or organization that discharges effluent into the environment shall treat the effluent to the permissible limits as prescribed in Schedule I to these Regulations.

(2) A facility, body corporate or organization shall :

(*a*) carry out effective treatment, at the time the plant is operating ;

(*b*) ensure that Environmentally Sound Management (ESM) of sludge or residuals containing heavy metals or other toxic materials are disposed in a designated disposal site or landfill by the appropriate Regulatory Authority ;

(*c*) ensure the treatment and disposal of toxic organics contained in both effluent and sludge as approved by the Agency ;

(*d*) ensure that effluent is not diluted to achieve the standards contained in Schedule I to these Regulations ; and

(*e*) ensure that wastes containing toxic organics are treated with Best Available Technology (BAT) and Best Environmental Practices (BEP).

Sludge Disposal.

26.—(1) A facility, body corporate or organization shall not discharge sludge directly into any water body and any discharge to any part of the environment is prohibited except under a sludge disposal license.

(2) Sludge disposed onto land shall be classified and none of its components shall exceed the prescribed limit in Schedule II to these Regulations.

(3) Any other sludge besides purely domestic organic and purely agricultural organic shall be treated as hazardous waste to be treated and disposed in a secure landfill.

Emission Standards

27. A facility, body corporate or organization shall comply with the Emission Standards as prescribed in schedule III to these Regulations.

Priority Air Pollutants.

28.—(1) A facility, body corporate or organisation with potential source of emission shall measure the emission of every priority air pollutant, develop and implement a plan to control such emission in accordance with the standard prescribed in Schedule III to these Regulations.

(2) A facility, body corporate or organisation shall be required to report the emission data, sources of emissions and undertake emission reduction in accordance with the implementation plan which shall be reviewed every three years by the Agency.

(3) A facility, body corporate or organisation shall ensure that, it measures the odour detection threshold and the odorous dilution ratio of the working environment.

(4) A facility, body corporate or organization shall adopt dilution method of testing odours such as the American Society for Testing Materials (ASTM) or any other method as may be specified by the Agency to safeguard the health of the workers.

Burning of Fuels.

29.—(1) A facility, body corporate or organisation shall not burn light fuel containing over 0.5 percent sulphur by weight as fired in an existing source or in a new source.

(2) A facility, body corporate or organisation shall not burn medium oil fuel containing over 1.1 percent sulphur by weight as fired.

(3) Notwithstanding the provisions of sub-regulation (1) of this regulation, heavy fuel oil with not more than 3 percent 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 scrubbing device or other material ; and

(*b*) the total sulphur dioxide emission from the entire facility is less than the allowable sulphur dioxide emission.

Abatement Technology and Treatment.

30.—(1) A facility, body corporate or organisation that discharges gaseous emissions shall reduce emissions to the permissible level as prescribed in Schedule III to these Regulations using appropriate reduction technologies as listed in Schedule XX to these Regulations.

(2) Reduction can be achieved through minimizing the release of significant pollutants to the air by adopting the measures in Schedule XX to these Regulations.

Air Quality Control Permit

31.—(1) A facility, body corporate or organisation with activities connected with those listed in Schedule XV to these Regulations shall require an atmospheric emission permit from the Agency before operation.

(2) The Agency shall notify the operators of any of the following amendments :

(*a*) additions to the list of activities in Schedule XV to these Regulations ;

(*b*) removal of any activity from the list ; or

(*c*) changes to particulars on the list.

Noise Standards.

32. A facility, body corporate or organization shall evaluate its installations and ensure that routine controls are sufficient to prevent risks of noise pollution from pulp and paper processing and production.

Noise Abatement.

33. Noise abatement measures should be in place to achieve the levels prescribed in the National Environmental (Noise Standards Control) Regulations, 2009.

Hearing Conservation Programme.

34.—(1) A facility, body corporate or organization shall administer a continuing, effective hearing conservation programme, whenever employee noise exposures equal or exceed an 8-hour Time-Weighted Average sound

level (TWA) of 90 decibels (dB) measured on the A scale (slow response) or, equivalent to a dose of 80 as stipulated by Occupational Safety and Health Act (OSHA 18001) as in Schedule XIX to these Regulations.

(2) For purpose of hearing conservation programme, employee noise exposure shall be computed, regardless of the provision and the use of Personal Protective Equipment.

(3) An 8-hour time weighted average of 90 dB shall be referred to as the action level.

Noise Monitoring.

35. A change in production process shall be communicated to the Agency and monitoring shall be repeated whenever a change in production process, equipment or control increases noise exposures to the extent that :

(*i*) additional employees may be subjected to risk at the action level ; or

(*ii*) the attenuation provided by hearing protectors being used by employees may be rendered inadequate to meet requirements of regulation 34(1) of these Regulations.

PART II—SAMPLING PROCEDURES

Collection and Analysis of Samples.

36. A facility, body corporate or organisation shall examine samples according to the Standard Operating Procedures (SOP) as developed by the Agency.

Spot Sampling for Physical or Chemical Parameters.

37. A spot sample for the purpose of analysis for all the tests including oil and grease, dissolved oxygen, pH, chlorine and sulphide shall be taken as follows :

(*a*) the whole sample volume is to be taken at one time, at the point of discharge or, where the discharge has stopped, at the nearest practicable point within zero to one kilometre upstream and downstream of point of discharge ; and

(*b*) the sample shall be analysed immediately after collection where possible but not later than 24 hours after taking the sample and the whole sample volume shall be used.

Composite Sampling for Physical or Chemical Parameters.

38. A composite sample for the purpose of analysis for all tests other than those for temperature and pH shall be taken by combining individual samples as follows :

(*a*) a minimum of five samples of equal volume of not less than 500 ml each shall be taken at the point of discharge or, where the discharge has stopped, at the nearest practicable point within zero to one kilometre upstream and downstream of the point of discharge, at approximately equal intervals of time over a minimum period of four (4) hours within any 24 hour period ;

(*b*) two of the composite samples collected when the discharge has been stopped, will be used to prove the source and extent of pollution ;

(*c*) the samples shall be kept as cool as at site ambient conditions and sample analysis shall commence not later than 24 hours after taking the last sample ; and

(*d*) where the discharge has stopped or is intermittent, two grab samples shall be collected at the nearest practicable point within zero to one kilometre upstream and downstream each of the point of discharge.

Sampling for License Classification.

39. The whole volume of sample for spot and further laboratory analysis shall be taken at one time at the point of discharge.

Sampling for other Parameters.

40. Where full laboratory facilities do not exist on the site, the oxygen in the sample may be "fixed" at the time of sampling by adding any of the following reagents; alkaline azide, sulphuric acid, permanganate, oxalate, manganese sulphate and alkaline iodide or any other approved scientific method, provided that the :

(*a*) stopper of the sample container shall be replaced and the solution shall be well mixed ; and

(*b*) remaining steps shall be carried out later in the laboratory.

Sampling for Microbiological Analysis.

41.—(1) When a number of samples for different purposes are to be taken from the same sampling point, the following precautions are to be observed :

(*a*) the sample for bacteriological examination shall be collected first unless special investigations are necessary ;

(*b*) samples for bacteriologcal examination shall be kept strictly separate from all others to avoid contamination ; and

(*c*) boxes for the transportation of samples shall be made of materials that can be disinfected regularly, and they shall not be used for carrying anything other than samples of water for bacteriological examination.

(2) Sterile bottles used exclusively for bacteriological purposes that are fit for immediate use shall be provided by the laboratory performing the examination.

(3) Officers must ensure that the volume of each sample is at least 500ml and one sample at least is taken at each sampling point.

Air Sampling for Analysis.

42. Measurements of air quality parameters shall take place at a facility, downwind and upwind.

(2) Measurement of total suspended particulate shall be by gravimetric method using air sampler as follows :

(3) A report shall be based on sampling analysis performed in the period covered by the report and all the reports shall be in compliance with the format as prescribed in Schedule XVII to these Regulations.

(4) A permit holder shall report all sample results for parameters listed on the Monitoring Requirement, on the Industrial/Commercial Effluent/Emission and Discharge Monitoring Report Forms as prescribed in Schedule XVIII to these Regulations.

(5) A permit holder shall install monitoring equipment to facilitate accurate observation, sampling and measurement of the quality of effluent discharges as required by the permit and such equipment shall be in working order and accessible to all authorized officials at all times.

(6) A Permit holder discharging or proposing to discharge effluent to a general sewer or treatment plant shall maintain the following :

(*a*) records of production ;

(*b*) water consumption and discharge flow records ;

(*c*) complete monitoring records as specified in these Regulations ;

(*d*) process monitoring records ;

(*e*) incident reports ;

(*f*) waste handling records ; and

(*g*) any other records necessary to demonstrate compliance with these Regulations.

(7) A permit holder shall be required to file reports with the Agency for explanation where the holder :

(*a*) commits a serious violation or fails to submit a completed Monthly Effluent Data Sheet ;

(*b*) 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

(*c*) has any discharge that could cause problems to the environment including any sludge loadings.

Authorized Signatory.

46.—(1) A permit holder shall sign the report and attach a copy of the certificate of analysis from the Agency's accredited laboratory.

(2) A report shall be signed by the appropriate officer and all reports shall include the following certification statement :

"*I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. This information submitted is, to the best of my knowledge and belief, true, accurate, and complete*".

(*a*) a three sampling period (morning 8-10 am, afternoon 12-2pm and evening 4-6pm) shall be adopted ; and

(*b*) the heavy metals level of total suspended particulate shall be determined using any referenced standard method.

(3) Gaseous pollutants shall be measured by any of the following or as may be approved by the Agency :

(*a*) passive sampling method shall require the submission of analysis certificate along with results and a minimum of three sampling periods (1-hour, 24-hour and 30-days) shall be adopted as appropriate ;

(*b*) active sampling for NO_x shall use the Saltzman or any other standard method ;

(*c*) active sampling for SO_x shall use the West-Gaeke, hydrogen peroxide, conductimetry or any other standard method ;

(*d*) active sampling for hydrocarbons shall use the adsorption on activated charcoal method ; or

(*e*) continuous sampling of any gaseous air pollutant shall use instrument with detection range accommodating the maximum allowable limit of measured parameter and the measurement shall last for at least 1 hour in every sampling location.

Noise Measurements.

43.—(1) Noise levels shall be measured with instrument having both A and C weighting, a resolution not more than 0.1 dB and fast or slow responses.

(2) Measurement shall be taken at least 3m from any barrier or other sound reflecting sources, at about 1.2-1.5m above ground level or working platform and shall last for at least 10 seconds and daytime (06:00-18:00) and night time (18:00-06:00) measurements shall be taken at the fence line of any facility.

Part III—Permits

Procedures for Licensing and Permit.

44. Procedures for application for issuing of permit and revocation of such permit where they have already been issued shall be as contained in the National Environmental (Permitting and Licensing System) Regulations, 2009.

Part IV—Industrial Effluent and Air Quality Monitoring and Reporting

Reporting Requirements.

45.—(1) A permit holder, subject to categorical standards shall comply with reporting requirements under the Agency's permit including incidence report and monthly Effluent and Emission Data Sheet to the Agency's field offices.

(2) A permit holder shall submit to the Agency quarterly, a description of the nature, concentration and flow of all pollutants in the Monthly Effluent Data Sheet.

(3) A report shall be based on sampling analysis performed in the period covered by the report and all the reports shall be in compliance with the format as prescribed in Schedule XVII to these Regulations.

(4) A permit holder shall report all sample results for parameters listed on the Monitoring Requirement, on the Industrial/Commercial Effluent/Emission and Discharge Monitoring Report Forms as prescribed in Schedule XVIII to these Regulations.

(5) A permit holder shall install monitoring equipment to facilitate accurate observation, sampling and measurement of the quality of effluent discharges as required by the permit and such equipment shall be in working order and accessible to all authorized officials at all times.

(6) A Permit holder discharging or proposing to discharge effluent to a general sewer or treatment plant shall maintain the following :

(*a*) records of production ;

(*b*) water consumption and discharge flow records ;

(*c*) complete monitoring records as specified in these Regulations ;

(*d*) process monitoring records ;

(*e*) incident reports ;

(*f*) waste handling records ; and

(*g*) any other records necessary to demonstrate compliance with these Regulations.

(7) A permit holder shall be required to file reports with the Agency for explanation where the holder :

(*a*) commits a serious violation or fails to submit a completed Monthly Effluent Data Sheet ;

(*b*) 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

(*c*) has any discharge that could cause problems to the environment including any sludge loadings.

Authorized Signatory.

46.—(1) A permit holder shall sign the report and attach a copy of the certificate of analysis from the Agency's accredited laboratory.

(2) A report shall be signed by the appropriate officer and all reports shall include the following certification statement :

"*I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. This information submitted is, to the best of my knowledge and belief, true, accurate, and complete*".

Monitoring Records.

47. A record shall be made available to the Agency, and shall be retained for a minimum of ten years and throughout the course of any pertinent litigation thereafter.

Fees.

48.—(1)The Agency shall adopt charges and fees that shall include :

(*a*) fees for processing application for permit ;

(*b*) fees for reviewing accidental discharges, prevention procedures and construction ; and

(*c*) other fees as the Agency may deem necessary to carry out the requirements contained in these Regulations, which may include emergency incident response and cost of personnel and equipment.

(2) The fees in sub-regulation (1) of this regulation relate solely to the matters covered by these Regulations and are separate from all other fees chargeable by the Agency.

Confidential Information and Public Access to Records.

49. Without prejudice to any extant law, public access to records shall be governed by the Act and effluent constituents, and characteristics shall not be recognized as confidential information to the Agency.

PART V—ENFORCEMENT

Enforcement Notices.

50.—(1) An enforcement notice shall be served on an operator where the Agency is of the opinion that the operator has contravened, is contravening or is likely to contravene a condition of the permit.

(2) An enforcement notice shall specify the :

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

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

(*c*) period within which those steps must be taken.

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

Enforcement Notice Reminder.

51.—(1) Any Operator who fails to comply with the terms of the enforcement notice issued pursuant to regulation 50 of these Regulations shall attract the service of a second notice.

(2) Failure to comply with the second notice in sub-regulation (1) of this regulation within the specified time limit will lead to the issuance of a suspension notice or any other punitive action as may be necessary.

Mode of Delivery.

52. Mode of delivery of the enforcement notice shall be by hand, registered post or courier, electronic transmission, or pasted at the facility or registered premises of the organization.

Suspension of Permits.

53.—(1) Where a suspension notice is served under these Regulations the permit shall upon the service of such notice, cease to have effect as stated in the notice.

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

Equity.

54. Every facility shall be given equal treatment as far as inspection and enforcement of relevant laws are concerned.

PART VI—OFFENCES

Permit Conditions.

55.—(1) A facility, body corporate or organization, contravenes a permit condition where it fails to comply with :

(*a*) the conditions of a permit ;

(*b*) the requirements of an enforcement notice, or a closure notice under these Regulations ; and

(*c*) any requirement imposed by a notice served by the Agency.

False Statement.

56.—(1) A facility, body corporate or organization contavenes the provisions of these Regulations where it makes a statement which is known to be false or misleading particularly, where the statement is :

(*a*) in purported compliance with a requirement to furnish an information imposed by or under any provision of these Regulations ;

(*b*) for the purpose of obtaining a permit for the facility for variation, transfer or surrender of a permit ;

(*c*) to intentionally make a false entry in any record pertaining to the permit ;

(*d*) with the intent to deceive, forge or use a document issued or authorized to be issued under a condition of the permit ; and

(*e*) made or a document is circulated to deceive and mislead the Agency.

Failure to Comply with Abatement Measures.

57. A facility, body corporate or organization contravenes the abatement measures under these Regulations where it fails to :

(*a*) take appropriate measures to remove or otherwise treat and dispose of any effluent to minimize adverse effects ;

(*b*) take measures required by the Agency after unauthorized release of effluent ;

(*c*) remediate the environment to the standard prescribed by the Agency ;

(*d*) furnish all information to the inspector ;

(*e*) remove equipment or contain materials causing release into the environment when requested by the inspector ;

(*f*) produce a document when requested by the inspector ;

(g) comply with guidelines with respect to the handling, storage and transporting of any hazardous material(s) ; and

(*h*) ensure the use of Personal Protective Equipment (PPE) while handling, storing, treating or disposing of wastes.

(2) A facility, body corporate or organization contravenes the abatements measures where it :

(*a*) handles effluent in a manner which causes adverse effect to the environment ;

(*b*) disposes of industrial or factory effluent treated with pesticides contrary to these Regulations ;

(*c*) knowingly obstructs the inspectors from performing their duties ;

(*d*) dismisses, suspends or imposes penalty on an employee who reports a contravention of these Regulations ;

(*e*) transports effluent and sludge not completely enclosed, secured or covered by a manifest ; and

(*f*) transports effluent and sludge in bulk without prior authorization from the Agency.

Failure to Report.

58. A facility, body corporate or organization contravenes these Regulations where it fails to :

(*a*) maintain records of all discharges ;

(*b*) file quarterly and annual reports of all discharges ;

(*c*) submit record of receipt of or removal of effluent and sludge within the time frame prescribed by these Regulations ; and

(*d*) submit an atmospheric pollution prevention plan or air quality impact report arising from its operations.

Discharge of Effluent beyond Permissible Levels.

59. A facility, body corporate or organization contravenes these Regulations where it :

(*a*) releases effluent and sludge into the environment in excess of permissible level in these Regulations;

(*b*) fails to report release of effluent and sludge into the environment in excess of the permissible level as prescribed in Schedules I and II to these Regulations ; and

(*c*) fails to take reasonable measures to prevent, reduce or remedy the adverse effect of effluent, sludge and emissions into the environment.

Operating without Permit.

60. A facility, body corporate or organisation contravenes these Regulations where it engages in the operation of any of the activities listed under regulation 59 of these Regulations without a permit from the Agency.

PART VII—OFFENCES AND PENALTIES

Offences and Penalties.

61.—(1) Any person who violates any of the provisions of regulations 55 to 60 of these Regulations commits an offence and shall on conviction, be liable to a fine not less than ₦200,000 or to imprisonment for a term not less than six months or to both such fine and imprisonment and an additional fine of ₦5,000 for every day the offence subsists.

(2) Where an offence under the provisions of regulations 55 to 60 is committed by a body corporate, it shall on conviction, be liable to a fine not less than ₦1,000,000 and an additional fine of ₦50,000 for every day the offence subsists.

(3) Notwithstanding the provisions of these Regulations, the Agency shall have power to enter and seal any facility contravening any of the provisions of these Regulations.

PART VIII—INTERPRETATIONS

Interpretation.

62. In these Regulations unless the context otherwise requires :

"*Act*" means the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007 ;

"*Agency*" means the National Environmental Standards and Regulations Enforcement Agency (NESREA) ;

"*BAT*" (*Best Available Technology*) means an emission limitation based on the maximum degree of emission reduction which (consisting energy, environmental and economic impact and other costs) is achievable through application of production processes and available methods, systems, and techniques ;

"*BEP*" (*Best Environmental Practices*) means actions carried out to mitigate environmental impact of a facility ;

"*Bleaching*" means any process that chemically alters pulp to increase its brightness ;

"*BPT*" (*Best Practicable Technology*) means non-conventional standard based on cost, environmental and engineering factors ;

"*broke*" means any formed paper during the papermaking process (from the beginning of the paper making to the finished product) that has never been shipped to the customer ;

"*CTMP*" (*Chemi-thermo-mechanical Pulping*) means the process of reducing wood chips into pulp in mechanical disk refiners, usually after pretreament of chips with steam or chemical solutions ;

"*composite sample*" means representative mixture of several different samples (usually bulk sample) ;

"*de-inking*" means processes used to remove ink to make the pulp brighter and cleaner ;

"*designated officer*" means a person who has been appointed by the Agency to be responsible for processing applications with respect to activities designated under these regulations, and includes an acting officer ;

"*deleterious substance*" the following classes of substances from a mill are prescribed as deleterious substances :

(*a*) acutely lethal effluent ;

(*b*) BOD matter ; and

(*c*) suspended solids ;

"*Director General/Chief Executive Officer* (*DG/CEO*)" means the Director General of the National Environmental Standards and Regulations Enforcement Agency (NESREA) ;

"*effluent*" means waste water (treated or untreated) that flows out of a treatment plant, sewer, or industrial outfall resulting from commercial or industrial use of water generally refers to wastes discharged into surface waters ;

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

"*emission*" means the direct or indirect release of substances, vibrations, heat or noise from individual or diffuse sources in a facility into the air, water or land ;

"*emission limit*" means the mass, expressed in terms of specific parameters, concentration or level of an emission, which may not be exceeded during one or more periods of time ;

"*expansion*" means an increase in size, volume or other physical dimensions of an activity such that the increase may cause an adverse effect if not properly mitigated ;

"*facility*" means Pulp and Paper, Wood and Wood Products Sectoral Group.

"*flow weighted sample*" means a composite sample consisting of a mixture of aliquots collected at a constant time interval where the volume of each aliquot is proportional to the rate of flow ;

"*grab sample*" means a single sample or measurement taken at a specific time or over a short period of time as feasible ;

"*hazardous waste*" means solid waste that exhibits one or more of the following characteristics :

(*i*) ignitable,

(*ii*) corrosive,

(*iii*) reactive,

(*iv*) toxic ;

"*influent water*" means either processed waste water or raw water from a river, stream, spring or canal, or water abstracted from underground and used by a facility ;

"*inspection officer or inspector*" means a provincial officer who has the legal authority to enter a facility to conduct an inspection under environmental legislation (Acts), guidelines and regulations ;

"*kraft*" means thick brown paper made from chemically treated wood pulp ;

"*Minister*" means the Minister responsible for matters of Environment, the appropriate government structure operating at that time ;

"*modification*" mean 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 ;

"*other facility wastewater*" means effluent originating from the washing and general maintenance of a facility ;

"*particle board*" means a type of pressed wood made up of wood particles (wood chips, shavings and sawdust) and synthetic resin ;

"*permit*" means an official document, authorization, license, or equivalent control document issued by the Agency to implement the requirements of these Regulations to discharge effluent especially for a limited period of time ;

"*permitee*" means a person authorised by a permit to carry out a specific function ;

"*person*" means natural or juristic personality (including facility) ;

"*printing and publishing*" mean a group of facility encompassing these three sub-sectors: newspapers and periodicals; books and pamphlets; and commercial and job printing and other allied industries ;

"*process*" means an activity undertaken by industries to detoxify effluent or emission ;

"*pulp*" means processed cellulose fibres that are derived from wood, other plant material or recycled paper products ;

"*responsible corporate officer*" means Chief Executive, or Managing Director, or Chairman, of the corporation in charge of a principal business function, or any designated person who performs similar policy or decision making functions for the corporation ;

"*sample*" means a small part of something intended as a representative of the whole ;

"*sludge*" means liquid or solid sediments including other residue from a municipal sewage collection, treatment system and liquid or solid, other septic

from septic or holding tank pumping from commercial, industrial or residual establishments ;

"*SOP*" means Standard Operating Procedure developed by the Agency for chemical analysis ;

"*sulphite paper*" means thick white paper made from chemically treated wood pulp ;

"*time weighted sample*" means a composite sample consisting of equal volume aliquot collected at a constant time interval ;

"*water bodies*" means underground water, river, stream, spring, canal, reservoir, well, lake, lagoon, ocean etc ;

"*water efficient device*' means any device that minimizes the use of water in the production process ;

"*wastewater system*" :

(*a*) a sewer, conduit, pump, engine or other appliance used or intended to be used for the reception, conveyance, removal, treatment and disposal of effluent ; and

(*b*) does not include house sewers ;

"*watercourse*" 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 ; and

"*white water*" means water generated from compressed pulp.

63. These Regulations may be cited as the National Environmental (Pulp and Paper, Wood and Wood Products Sector) Regulations, 2013. Citation.

SCHEDULE I

Regulations 23(1), (2)(*a*), (3) ; 24 (1), (2); 25 (1), (2)(*d*) ; 59(*b*)

TABLE A

EFFLUENT LIMITATION FOR (PULP, PAPER AND PAPER PRODUCTS, PRINTING AND PUBLISHING SECTORAL GROUP)

Parameter	*Unit*	*Value*				
		Bleached Kraft	*Unbleached Kraft*	*Sulphite*	*CTMP*	*Mechanical Pulping*
Flow[a]	m^3/ADt	50	25	55[d]	20	20
pH		6-9	6-9	6-9	6-9	6-9
TSS	kg/ADt	1.5	1.0	2.0	1.0	0.5
COD	kg/ADt	20	10	30[c]	5	5.0
BOD_5	kg/ADt	1	0.7	2.0	1.0	0.5
AOX	kg/ADt	0.25		0.005		0.01
Total N	kg/ADt	0.2[b]	0.2	0.5	0.2	0.1
Total P	kg/ADt	0.03	0.02	0.05	0.01	0.01

TABLE B

EFFLUENT LIMITATION FOR (PULP, PAPER AND PAPER PRODUCTS, PRINTING AND PUBLISHING SECTORAL GROUP)

Parameter	*Unit*	*Value*						
		Recycled Fibre without de-inking	*Recycled Fibre with de-inking*	*Recycled Fibre Tissue Mills*	*Uncoated Paper*	*Coated Paper*	*Tissue Mills*	*Fiber Preparation, Nonwood*
Flow[a]	m^3/ADt	10	15	25	15	15	25k	50
pH		6-9	6-9	6-9	6-9	6-9	6-9	6-9
TSS	kg/ADt	0.15	0.3	0.4	0.4	0.4	0.4	2.0
COD	kg/ADt	1.5	4.0	4.0	2.0	1.5	1.5	30
BOD_5	kg/ADt	0.15	0.2	0.5	0.25	0.25	0.4	2.0
AOX	kg/ADt	0.005	0.005	0.005	0.005	0.005	0.01	
Total N	kg/ADt	0.05	0.1	0.25	0.2	0.2	0.25	0.5
Total P	kg/ADt	0.005	0.01	0.015	0.01	0.01	0.015	0.05

Kg/ADt- Kilograms of pollutant per 1,000kg of air dry pulp.

(*a*) Cooling water and other clean water are discharged separately and are not included.

(*b*) Any nitrogen discharge associated with the use of complexing agents should be added to the figure of tot-N.

(*c*) Because of higher kappa number after cooking for magnefite process the BAT associated level is 35kg COD/ADt.

(*d*) Does not include process water from the paper mill in integrated sulfite pulp mills.

TSS - Total Suspended Solids
COD - Chemical Oxygen Demand
BOD - Biochemical Oxygen Demand
AOX - Adsorbable Organic Halides
Sources of Information

TABLE C—EFFLUENT LIMITATION FOR WOOD TREATMENT AND PRESERVATION

Parameter	Unit	Value
Flow[a]	m^3/Adt	20
pH	S.U	6-9
TSS	mg/l	50
COD	mg/l	150
BOD_5	mg/l	50
Oil and Grease	mg/	10
Phenol	mg/l	0.5
Arsenic	mg/l	0.1
Chromuim -Total -Hexavalent	mg/l	 0.5 0.1
Copper	mg/l	0.5
Fluorides	mg/l	5
PAHs (each)	mg/l	0.05
Dioxins/Furans	mg/l	0.1
Pesticides (each)	mg/l	0.05
Toxicity	To be determined on a case specific basis	
Temperature	°C	<3[b]

Notes :

(*a*) Process waste water containing chemical preservatives should be contained as part of a closed loop application system.

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

PAHs- Polycyclic Aromatic Hydrocarbons.

TABLE D—EFFLUENT LIMITATION FOR BOARD AND PARTICLE BASED PRODUCTS

Parameters	Units	Value
pH		6-9
BOD_5	mg/l	50
COD	mg/l	150
TSS	mg/l	50
Formaldehyde	mg/l	10
Temperature	°C	<3[a]

(*a*) At the edge of a scientifically established mixing zone which takes

SCHEDULE III

Regulations 27, 28(1), 20(1)

GASEOUS EMISSION

Industry-specific pollutants that may be emitted from point or fugitive sources during routine operations consist of numerous organic and inorganic compounds, including Sulphur Oxides (SO_X), Nitrogen Oxides (NO_x), Ammonia (NH_3), dioxins and furans, formaldehyde, and other volatile organic compounds (VOCs)

TABLE A—AIR EMISSION LIMITATIONS FOR (PULP AND PAPER FACILITY)

Table 2 - Emission for Pulp and Paper Facility			
Parameter	Type of mill	Unit	Value
TSP	Kraft, bleached	Kg/ADt	0.5
	Kraft, Unbleached-Integrated	kg/ADt	0.5
	Sulfite, integrated and Non-integrated	kg/ADt	0.15
SO_x as SO_2	Kraft, bleached	kg/ADt	0.4
	Kraft, Unbleached-Integrated	kg/ADt	0.4
	Sulfite, integrated and Non-		

TRS - Total Reduced Sulfur compounds
Kg/ADt- Kilogram of pollutant per 1,000kg of air dry pulp

TABLE B—AIR EMISSION LIMITATION FOR SAW MILL FACILITIES

Parameters	Unit	Value
Wood dust	mg/Nm^3	50
VOCs	mg/Nm^3	20

mg/Nm^3 milligram per Nanometer cube

TABLE C—AIR EMISSION LIMITATION FOR BOARD AND PARTICLE BASED PRODUCTS

Parameters	Unit	Value
Particulate Matter	mg/Nm^3	20 (MDF) 20 (Wood Dryers) 50 (Other Sources)
Condensable VOCs	mg/Nm^3	130
Formaldehyde	mg/Nm^3	20 (Wood Dryers) 5 (Other Sources)

SCHEDULE IV *Regulation* 8(2)

BEST PRACTICES

1. Embracing cleaner production with emphasis on water reuse and recycling.
2. Encourage more efficient use of process chemicals.
3. Recovering and reusing process chemicals and ink solution .
4. Using peroxide-based bleaches instead of sulphur and chlorine-based bleaches, where feasible.
5. Adopting counter-current rinsing and improved cleaning and housekeeping.
6. Install vapour recovery systems to control air emissions to prevent the release of toxic organics into air.
7. Replace highly toxic and persistent ingredients with less toxic, degradable ones.
8. Control loss and wastage of active ingredients and return packaging for refilling.
9. Use equipment wash down waters as makeup solutions for subsequent batches.
10. Minimize wastage by inventory control, and find uses for off-specification products.

Advantage of Electron Beam Drying (EB) (*used on web presses*)

Similar in use to ultraviolet inks and uses less solvent than heat-set inks.

SCHEDULE VI *Regulation* 9

WASTE UTILISATION AND DISPOSAL

1. Use bark-free wood chips and other wood waste as raw material input for the pulp and paper or board-making industries.
2. Wood and bark chips are to be used as mulch for gardens, highway verges and agriculture.
3. Sawdust and wood shavings are to be used for animal beddings.
4. Wood wastes are to be used as secondary raw materials for facility's process needs or for export.
5. Particle board manufacturers may also accept sawdust and chips with bark.
6. All Rags contaminated with hazardous ink and solvent shall be considered hazardous and shall be stored separately from municipal waste and transported in an environmentally sound manner.

SCHEDULE VII *Regulation* 4

TREATED WOOD PRECAUTIONS AND HANDLING GUIDELINES

1. Only use copper treated wood that is clean, dry and free of surface residues.
2. Avoid inhaling wood dust and wear a filter mask while power sawing, machining, sanding or any operation where wood dust is generated.
3. Protect the eyes while using power tools or any work where small particles may be ejected.
4. Wear c[illegible]

11. Substituting potentially harmful process chemicals with less harmful alternatives.

12. Ensure dry debarking of wood to minimise waste water generation .

13. Workers should be trained specifically in the safe use of debarking, chipping, and other equipment.

14. Label, mark, package and store all chemicals and hazardous materials according to national and internationally recognized requirements and standards.

15. Avoid the use of elemental chlorine for bleaching and use a more environmentally friendly bleach.

16. Avoid the use of Copper Chrome Arsenate (CCA) as a preservative for timber and use any environmentally friendly preservative.

17. Use water-based (rather than solvent-based) inks and dyes.

18. Keep sulfur storage bins free of sulfur dust accumulation.

19. Implement an inspection and maintenance program to prevent and identify leaks and equipment failure.

SCHEDULE V *Regulation* 20

GUIDELINES FOR INK WASTE REDUCTION IN PRINTING AND PUBLISHING

1. Fill ink fountains only enough for a particular run or shift.

2. Return all unemulsified to their containers.

3. Install automatic ink levelers in large web presses to keep ink fountains at their optimal level for good print quality.

4. Run similar jobs simultaneously to reduce waste generation between cleanup and start of the next run.

5. Clean ink fountains only when changing colors or when the ink might dry out between runs to reduce waste ink generation but

SCHEDULE VIII *Regulation* 10

POLUTION PREVENTION AND CONTROL TECHNIQUES

Recommendation for pollution prevention and control techniques for emission of particulate matter includes :

(*a*) Filtration of air exhaust from material handling and granulation areas using a cyclone or bag house ;

(*b*) Installation of ventilation control systems, especially at the points of highest processing temperature(s) along the production line ;

(*c*) Installation of local exhaust extraction systems and activated carbon adsorbers ;

(*d*) Substitution of solvent-based coatings and adhesives with less toxic alternatives ; and

(*e*) Use of automated techniques for coatings and adhesive applications.

SCHEDULE IX *Regulation* 15

GUIDE FOR OCCUPATIONAL RISK CONTROL AND SAFETY MEASURES

A. PULP AND PAPER

1. Automate pulping and bleaching operations to ensure that operators that monitor and operate processes from control rooms are isolated from potential chemical exposures and other health and safety hazards.

B. Wood and Wood Products

1. All cutting and debarking equipment such as circular saws and rotator debarkers should be fitted with safety guards or interlocks to prevent access to moving parts.

2. All log yard activities should be mechanized to reduce human contact with logs during handling and stacking.

3. Ensure that log stacks are not higher than the safe height defined by risk assessment carried out by qualified personnel or consultant which should take account of site specific circumstances including stacking methodology.

4. All operating personnel should be trained in safe working procedures in log stacks, avoidance of felling of logs, planning of escape routes and ways to minimize injury during movement of logs to log ponds.

5. All conveyor system routes must be clearly demarcated to prevent access as necessary and belt must be inspected daily to ensure they are in

SCHEDULE XI *Regulation* 18(1)

BANNED/RESTRICTED CHEMICALS-
CONTROLLED SUBSTANCES UNDER THE MULTILATERAL
ENVIRONMENTAL AGREEMENTS

Chemical/Pesticide	*CAS Number*
ROTTERDAM CONVENTION	
PART 1: Banned Chemicals and Pesticides	
2,4,5-T	93-76-5
Aldrin	309-00-2
Binapacryl	485-31-4
Captafol	2425-06-1
Chlordane	57-74-9
Chlordimeform	6164-98-3
Chlorobenzilate	510-15-6
DDT	50-29-3
Dieldrin	60-57-1
DNOC and its salts (such as ammonium salt, potassium salt and sodium salt)	534-52-1;2980-64-5;5787-96-2;2312-76-7

dustable powder formulations containing a combination of benomyl at or above 7%, carbofuran at or above 10% and thiram at or above 15%	17804-35-2;1563-66-2;137-26-8
Methamidophos (Soluble liquid formulations of the substance that exceed 600 g active ingredient/l)	10265-92-6
Methyl-parathion (emulsifiable concentrates (EC) with 19.5%, 40%, 50%, 60% active ingredient and dusts containing 1.5%, 2% and 3% active ingredient)	298-00-0
Monocrotophos	6923-22-4

STOCKHOLM CONVENTION PART 3 : PERSISTENT ORGANIC POLLUTANTS—(POPs)	
Aldrin	309-00-2
Chlordane	57-74-9
DDT	50-29-3
Dieldrin	60-57-1
Dioxins	
Endrin	
Furans	
Heptachlor	76-44-8
Hexa Chloro Benzene (HCB)	11-74-1
Polychlorinated Biphenyls (PCBs)	1336-36-3
Mirex	
Toxaphene	8001-35-2

Pentachlorofluoroethane	354-56-3
Tetrachlorodifluoroethane	76-12-0
Tetrachloromethane or carbon tetrachloride	56-23-5
Trichloroethane or methyl chloroform	71-55-6
Chlorodifluoromethane	75-45-6
Dichlotrifluoroethane	306-83-2
Chlorotetrafluoroethane	2837-89-0
Dichlorofluoroethane	1717-00-6
[illegible]	[illegible]

Carbon tetrafluoride	75-73-0

Polybrominated diphenyl ethers	

B 612

3. Policy statements are important to an organisation because they help Policy.

SCHEDULE XIV *Regulation* 16(1)

GUIDELINES FOR EXTENDED PRODUCER RESPONSIBILITY PROGRAMME

1. As part of the Strategic Alliance Programme of the Agency, all manufacturers and importers of pulp and paper products shall partner with the Agency to establish an effective Consumer Product Stewardship Programme.

2. The manufacturers and importers shall submit a proposal for a consumer products stewardship program to the Agency for approval and the proposal shall include elements for successful implementation of the scheme as follows :

(*a*) establish a process for the collection, handling, transportation and final treatment of post-consumer products, regardless of who the original brand owner is ;

(*b*) incorporate the principles of a pollution prevention hierarchy by moving progressively from disposal to reduction, reuse, recycling and recovery of post-consumer products ; and

(*c*) submit on or before June 30 in each year to the Agency , an annual report on their consumer products stewardship program during the previous fiscal year including information with respect to :

(*i*) the total amount of paper products and other related products sold and post-consumer products collected,

(*ii*) the total amount of post-consumer products processed or in storage,

(*iii*) the percentage of post-consumer products that were treated, contained, reduced, reused, recycled or recovered,

(*iv*) efforts taken through marketing strategies to reduce post-consumer products and packaging waste,

(v) the types of processes used to reduce, reuse, recycle or recover post-consumer products, including details of efforts to incorporate the priorities of a pollution prevention hierarchy by moving progressively from disposal to reduction, reuse, recycling and recovery of post-consumer products,

(*vi*) the location of return collection facilities or depots,

(*vii*) the location of any long-term containment or final treatment and processing facilities for post-consumer products and packaging waste,

(*viii*) the types of educational information and programs provided,

(*ix*) the process of internal accountability used to monitor environmental effectiveness, and

(*x*) any other information requested by the Agency.

SCHEDULE XV *Regulation* 31(1), (2*a*)

ACTIVITIES REQUIRING AIR QUALITY CONTROL PERMIT

Based on precautionary consideration to safeguard public health and the environment, the following activities shall require Atmospheric Emission Permit :

(*a*) use of solvents in activities ;

(*b*) processes including the use of ammonia, formaldehyde, methanol and other alcohols, esters, aliphatic hydrocarbons and several monomers ;

(*c*) the use of perchloroethylene ; and

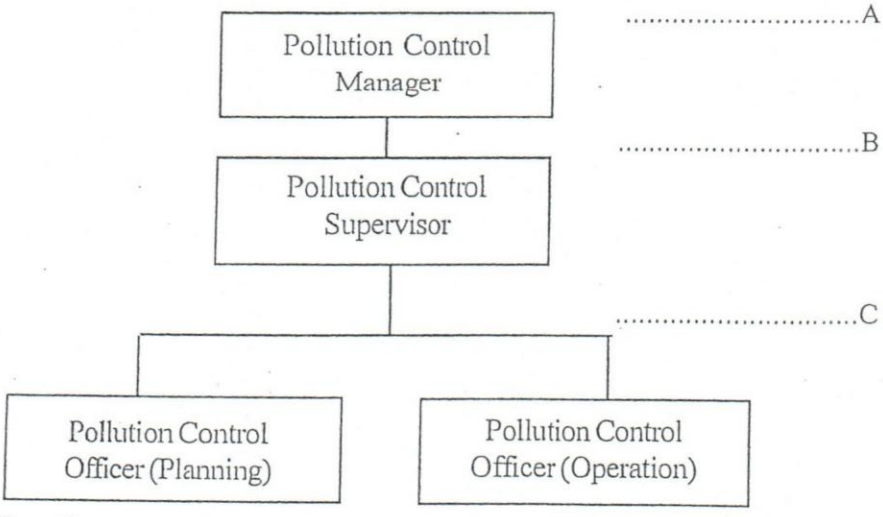
(*d*) any other activity whose process may result in atmospheric emission.

SCHEDULE XVI *Regulation* 13(1), (2)

ORGANISATIONAL SYSTEM FOR POLLUTION CONTROL

Each facility shall be mandated by the Agency to have an organizational system that will carry out Internal Environmental Auditing of the facility as well as liaise with NESREA and other Government Authorities. The Organizational system shall have Pollution Control Manager, Pollution Control Supervisor and Pollution Control Officers with relevant scientific background as minimum qualification shall be appointed. These shall be certified by the Agency.

Organization for Pollution Prevention



Functions

1. Manages the pollution control issues of the facility.
2. Assists the manager and directs the officers (only applicable in facilities where large amount of smoke and sewage is generated).

3. Deals with technical matters like inspection of the facility and raw materials.

Note : 3 depends on the size of the facility, and for a large facility there shall be PCM for air, land and water.

SPECIFIC DUTIES OF THE POLLUTION CONTROL MANAGER (PCM)

The specific duties of the PCMs are to :

(*a*) ensure that the responsibilities are very clear for all the staff involved in pollution control ;

(*b*) ensure that daily pollution control practices are complied with ; and

(*c*) maintain smooth and proper environmental and safety communications within the facility and the regulatory authorities as well as the host community.

CONCRETE POLICIES CONCERNING INDUSTRIES' POLLUTION CONTROL

1. Management concerning pollution control at facilities include the following:

(*a*) improvement and operation of effective environmental management system ;

(*b*) communication with the Agency's Headquarters ;

(*c*) ability to know when a system is malfunctioning ;

(*d*) documentation of the environmental management procedure and control of the records and documents.

(5) co-operation with interested parties such as other related companies, regulations.

2. Addressing corporate-wide environmental measures in the following ways :

(*a*) recognition of the business risk relative to the environmental management system ;

(*b*) recourse management including maintenance of human resources for pollution control and their competency ;

(*c*) establishing a corporate-wide environmental management system including risk information feed-back system ;

(*d*) establishing a redundant monitoring, assessment and self-improvement system ; and

(*e*) establishing a contingency plan and its verification.

SCHEDULE XVII *Regulation* 45(3)

PERMIT FORM

FORM 1

APPLICATION FOR EFFLUENT/EMISSION DISCHARGE

1. Name of Applicant .....
2. Year of Incorporation and Registration Number of Business Name
.....
3. Location of Business Premises
.....
.....
4. Description of plant facilities, outfall location(s), Effluent Characteristic(s)(to be Geo-referenced)
.....
.....
5. Qualifications and experience of staff involved in pollution control.....
.....
6. A listing of all toxic substances used or manufactured on the site.....
7. Does the establishment have any other permit issued to the facility? (State type)
.....
.....
8. Description of pollution abatement/monitoring facilities on site (including details of year of installation, capacity, etc. and also copies of design plans of sewerage and/or drainage plans.....
.....
9. A listing of all chemicals in use at the facility (trade names not acceptable)
.....
.....
10. Present discharge locations (to be geo-referenced) (illustrate) and position of inspection tap for compliance monitoring.....
.....
11. For new sources—submission of EIS report is mandatory. Request for permit must be made 3 months before the expected date of discharge.
12. Volume of raw water consumption (cubic meters /year)
.....
13. Source of energy at facility and quantitative estimate of consumption on a monthly basis .....
.....
14. Any safety/contingency plan/EMP.....
.....

15. Distance of facility from residential area .....
.....
.....

16. Detailed description of effluent/disposal methods.....
.....
.....

17. Production Capacity :
(*a*) current production capacity.....
(*b*) estimated production especially as a result of any proposed expansion
.....
.....
(*c*) estimated effluent organic load per year(kg / year COD)
.....

18. Air pollution emission points - with stack height and diameter (Drawing may be attached)
19. Process and pollution abatement equipment descriptions and specifications
20. All exhaust gas outlet temperatures (°C)
21. All exhaust gas flow rates (m^3/min.)
22. Chemical nature of air pollution emissions
23. Air pollution emission estimates or existing stack test data (examples of pollutants —NO_x, SO_x, VOC, CO, PM, etc.)
24. Fuel specifications (type-%sulfur-%nitrogen-%ash-%H_2O-BTU-grade)
25. Describe fuel and material storage sites (size, temperature, pressure)

....

Date *Applicant's Signature*

SCHEDULE XVIII *Regulation* 45(4)

QUARTERLY DISCHARGE MONITORING REPORT (QDMR) [NESREA]

DISCHARGE MONITORING REPORT

Please Complete and submit One Copy per Quarter, this report must be postmarked not later than the 28th of the following month.

FACILITY NAME AND ADDRESS :
Facility e-mail address:

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

SAMPLING POINT LOCATION : ..... [ ] .....

MONTH YEAR

SAMPLING DATES AND TIME : .....

Type of Sampling							
Parameters	*Monthly Results*						*National Regulatory Limits*
PHYSICAL :	*Units*	*1st*	*2nd*	*3rd*	*4th*	*Average*	
Appearance							
Odour							
Temperature	°C						
Ph							
Conductivity	µs/cm						
Turbidity	NTU						
Dissolved Oxygen (DO)	mg/l						
Total Suspended Solids (TSS)	mg/l						
Total Dissolved Solids (TDS)	mg/l						
BOD	mg/l						
COD	mg/l						
INORGANIC :							
Chloride	mg/l						

Nitrate	mg/l						
Sulphate	mg/l						
Sulphite	mg/l						
Cyanide	mg/l						
Nitrites	mg/l						
Chromium (hexa-valent)	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 & Grease	mg/l						
MICRO-BIOLOGICAL:							
Feacal Coli form	mg/l						

NOISE MEASUREMENTS

Locations					Noise Levels											
				Signature with date of Principal Executive Officer or Authorized Agent;					I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure 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)

INCIDENT REPORT FORM

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/her employment at the facility. She must complete and submit the **"Incident Report"**. If the employee is unable to complete the form, the supervisor must complete on his/her behalf.

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

All accidental discharges/emergencies/accidents should be reported to NESREA within 48 hours.

1. FACILITY :

Name & Address of Facility :.....
.....
.....
.....

No of Employees :.....
.....

Department where the discharge occurred :.....
.....

Place of the accidental discharge :.....
.....

2. DISCHARGE :

Cause(s) of discharge :.....
Did the discharge occur as a result of mechanical/technical/unskilled application? Please specify.....
.....

Was the discharged gaseous, liquid or solid? Please specify.....
.....

What was the nature of discharge, sludge, effluent or influent? 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) ?.....

.....

SCHEDULE XIX *Regulation* 34

HEARING CONSERVATION TABLE

A-Weighted Sound Level(dB)	Duration (hours)
80	32
85+	16
90‡	8
95	4
100	2
105	1
110	0.5
115	0.25
120	0.125
125	0.063
130#	0.031

Where :

* Measuring threshold

\+ Hearing Conservation begins—50% dose

‡ Eight hour criteria level

\# Minimum upper range

SCHEDULE XX *Regulation* 30(1), (2)

APPROPRIATE ABATEMENT AND TREATMENT TECHNOLOGIES

1. Stack gas scrubbing, carbon adsorption or combustion (for toxic

Extraordinary

Federal Republic of Nigeria Official Gazette

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S. I. No.	*Short Title*	*Page*
35	National Environmental (Motor Vehicle and Miscellaneous Assembly Sector) Regulations 2013	B625-B682

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

NATIONAL ENVIRONMENTAL (MOTOR VEHICLE &

29. Air Sampling for Analysis.
30. Noise Measurements.

PART III—VEHICLE SERVICING AND MAINTENANCE

31. Servicing and Maintenance.
32. Auto Body Shops.

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60. Performance Criteria and Rating.

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61. Interpretation.

62. Citation.

SCHEDULES

Schedule I : Guidelines for Preparing Environmental Management Plan (EMP).
Schedule II : Guide Template for Emergency Procedures in Motor Vehicle.
Schedule III : Best Practices.
Schedule IV : Organizational System and the Functions of Pollution Control Manager(s).
Schedule V : Banned/Restricted chemicals.
Schedule VI : Guidelines for Extended Producers Responsibility Programme.
Schedule VII : Effluent Limitation for Motor Vehicle and Miscellaneous Assembly.
Schedule VIII : Sludge Disposal Permissible Limit.
Schedule IX : Air Emission Standards.
Schedule X : Noise Standards.
Schedule XI : Guidelines for proper wastes handling in Motor Vehicle Servicing and Maintenance Workshops.
Schedule XII : Requirement for Establishment of End- of- Life Motor Vehicle Dismantling and Treatment Facility.
Schedule XIII : Guidelines for Personal Protective Equipment (PPE) for Motor Vehicle Maintenance, Servicing, Repairs Workshop and Body Shops.
Schedule XIV : Minimum Requirements for Certificate of Destruction Issued for End -of- Life Motor Vehicles.
Schedule XV : Monthly Discharge Monitoring Report(MDMR)
Annex : Application Form for Motor Vehicle/ELV Permit.

S. I. No. 35 of 2013

NATIONAL ENVIRONMENTAL (MOTOR VEHICLE AND MISCELLANEOUS ASSEMBLY SECTOR) REGULATIONS 2013

In exercise of the powers conferred on me by Section 34 of the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007, and all other powers enabling me in that behalf, I, Arc. Darius Dickson Ishaku, fnia, Honourable Minister, Federal Ministry of Enviro[illegible] make the following Regulations :

[illegible]

[illegible]

1.—(1) The purpose of these Regulations is to prevent and [illegible] pollution and nuisance from activities in the Motor Vehicle MV and Miscellaneous Assembly sectors in the Nigerian Environment and these Regulations shall be reviewed and updated [illegible] Motor Vehicles (MV/MLV).

(2) These Regulations are based on the cycle approach and covers all aspects of the Motor Vehicle & Miscellaneous Assembly, from [illegible] (Cradle).

(3) The principles of these Regulations shall be applied in the sector [illegible] Reduce, Reuse, Repair, Recycle and Recover in the primary drivers and the [illegible] shall [illegible] Energy, Resources & Wastes.

2.—(1) A facility and shall [illegible] to the Agency :

(a) an [illegible] Environmental Impact Statement (EIS) [illegible] Environmental Impact Assessment (EIA) for new project or modification to existing expansion or rehabilitation [illegible] commencement of [illegible] ;

(b) an Environmental Audit Report (EAR) [illegible] every three years to be [illegible] by an external consultant [illegible] Agency ; and

(c) Environmental Management Plan (EMP) [illegible] to these Regulations.

3.—(1) A facility, body corporate or organisation shall :

(a) apply appropriate Best Practicable Environmental Option, Cleaner Production and Green Technologies to reduce pollution [illegible] ;

(b) plan and [illegible] equipment in the event of an emergency ;

(c) have an Emergency Response Plan and a stock of [illegible] equipment [illegible] easily accessible and available to control pollution [illegible] in the event of [illegible] as prescribed in Schedule [illegible] these Regulations ; and

(*d*) prepare and implement a functional Emergency Response Plan which shall include measures to be taken :

(*i*) in the discharge of deleterious substances ;

(*ii*) to prevent any deposit(s) or discharges out of the normal course of events of such a substance ; and

(*iii*) to mitigate the effects of such deposits or discharges.

(2) Practicable steps shall be taken to ensure that accidental discharges such as spills or leaks, do not pollute the storm water system, local waterways or water bodies by :

(*a*) keeping chemicals (such as fuels, solvents, oils and coolants) within a bund wall and covered storage area ;

(*b*) having adequately stocked spill kits on hand ; and

(*c*) training staff on the use of spill kits.

Pollution Abatement Equipment.

4.—(1) A facility, body corporate or organisation shall install anti-pollution equipment for the detoxification or treatment of effluent and emission emanating from it so as to meet the prescribed effluent and emissions standards in Schedules VII and IX respectively.

(2) The installation of anti-pollution equipment made pursuant to sub-regulation (1) of this regulation shall be based on the Best Available Technology (BAT) or the Best Practicable Technology (BPT).

Polluter Pays Principle.

5.—(1) The Polluter-Pays-Principle shall apply to every facility, body corporate or organisation.

(2) The collection, treatment, transportation and final disposal of wastes shall be the responsibility of the body corporate or organisation generating the wastes within the specified standards and guidelines.

(3) In the event of an incident resulting in an adverse impact on the environment whether socio-economic or health wise, the facility shall be responsible for :

(*a*) the cost of damage, assessment and control ;

(*b*) remediation ; and

(*c*) reclamation.

Best Practices and Waste Minimisation.

6.—(1) Implementation of cleaner production processes and pollution prevention measures shall be employed to yield economic, social and environmental benefits as prescribed in Schedule III to these Regulations.

(2) All damaged and disused components including wires, electronic devices, oil filters, batteries, tyres, airbags, etc, shall be amenable to recovery under the Extended Producer Responsibility Programme or by recyclers in an Environmentally Sound Manner (ESM).

(3) All waste from motor vehicle assembly or manufacturing with hazardous properties shall be clearly labelled, stored separately from the general waste and contained in storage areas that are chemically resistant before disposal in an environmentally sound manner.

Pollution Control Organisational System.

7.—(1) A facility, body corporate or organisation shall put in place organizational system for pollution control and shall assign a qualified Environmental Manager (EM) or Pollution Control Manager (PCM) as prescribed in Schedule IV to these Regulations.

(2) It is important for the capacity of PCMs to be continually strengthened with the ultimate goal of attaining the Agency's required qualification and certification as prescribed in Schedule IV to these Regulations.

Banned and Restricted Chemicals.

8.—(1) All vehicles containing POP-BDEs polymer materials are banned from entering into the country.

(2) Any vehicle designated for Nigeria shall have a certificate of 'free of POP(s)/BDE polymer or hazardous chemicals'.

(3) Use of restricted chemicals shall be with a permit from the Agency and the list of banned/restricted chemicals is as stated in Schedule V to these Regulations.

Extended Producers Responsibility.

9.—(1) All importers, exporters, manufacturers, assemblers, distributors of motor vehicles as well as spare parts dealers, of various brands of motor vehicle products shall subscribe to an Extended Producers Responsibility Programme as prescribed in Schedule VI to these Regulations.

(2) Manufacturers and Importers of Motor Vehicle shall partner with the Agency on the Extended Producers' Responsibility Programme within two (2) years of commencement of these Regulations.

(3) It shall be the responsibility of the :

(*a*) manufacturers, importers, assemblers, distributors, spare parts and components producer to put in place a collection system to take back the end-of-life motor vehicles and components and setup dismantling points or centres ; and

(*b*) manufacturers and importers of motor vehicles to setup junk yards to collate the vehicle carcass for recycling.

Management of Chemicals, Oil Station and Fuel Dump Sites.

10.—(1) A facility, body corporate or organisation shall :

(*a*) ensure that there is no contamination arising from leakage of surface and underground oil, used oil, refrigerant, fuel or chemicals storage tank likely to cause pollution of the environment including surface and ground water ;

(*b*) have an impermeable base for any ancillary equipment and provide an appropriate bund wall in the event of any unanticipated discharge or spillage ; and

(*c*) install underground tanks and fuel dumps with leak detection equipment and shall be regularly inspected for leakages to prevent seepage into ground water.

Community Relations.

11. A facility, body corporate or organisation shall have a sustainable community relations programme as part of demonstration of compliance with her Corporate Social Responsibility.

EFFLUENT LIMITATION

Effluent Limitation Standards.

12.—(1) The National Environmental Standards in relation to effluent limitations for the sector shall be as prescribed in Schedule VII to these Regulations.

(2) An effluent shall be deemed to be polluted if :

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

(*b*) it is discharged from a facility without appropriate pre- treatment.

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

Restriction on the Release of Toxic Effluent.

13.—(1) A facility, body corporate or organisation shall not discharge effluent or discard spent oil, grease, wash-water, debris, flammable liquids such as paint, litter, sediment etc disposed of on land, into a water course or water body except treated to the permissible limits as prescribed in Schedule VII to these Regulations.

(2) Under no circumstance shall any person wash a spill down the drain.

(3) Notwithstanding sub-regulation (1) of this regulation, a facility, body corporate or organisation using an influent, shall ensure that the concentration or value of any of the parameters of the effluent conforms to standard as prescribed in Schedule VII to these Regulations.

Effluent Treatment.

14.—(1) A facility, body corporate or organization that discharges effluent into the environment shall treat the effluent to the permissible limits as prescribed in Schedule VII to these Regulations.

(2) A facility, body corporate or organization shall :

(*a*) carry out effective treatment each time the plant operates ;

(*b*) ensure that the Environmentally Sound Management of sludge containing heavy metals or other toxic materials are disposed of in a designated disposal site or landfill by the appropriate Regulatory Authority ;

(*c*) ensure the treatment and disposal of toxic organics contained in both effluent and sludge as approved by the Agency ;

(*d*) ensure that effluent is not diluted to achieve the standards contained in Schedule VII to these Regulations ; and

(*e*) ensure that wastes containing toxic organics are treated with Best Available Technology (BAT) and Best Environmental Practices (BEP).

Sludge Disposal.

15.— (1) A facility, body corporate or organisation shall not discharge sludge directly into any water body or the environment except under a sludge disposal permit.

(2) Sludge disposed of on land shall be classified and none of its components shall exceed the limit as prescribed in Schedule VIII to these Regulations.

(3) Any sludge except purely domestic or organic sludge and purely agricultural (organic) sludge shall be treated as hazardous waste and subject to the provisions of the Harmful Waste (Special Criminal Provisions, etc) Act Cap. H1 LFN, 2004.

(4) Hazardous Sludge shall be treated and disposed of in a secured landfill approved by the Agency.

Emission Standards.

16. A person, facility, body corporate or organisation who operates a machine or uses a motor vehicle shall comply with the Air Emission Standards as prescribed in Schedule IX to these Regulations and the National Environmental (Control of Vehicular Emissions from Petrol and Diesel Engines) Regulations, S.I No. 20 of 2011.

Priority Air Pollutants.

17.—(1) A facility, body corporate or organisation with any source or potential source of emission shall be required to measure the emission, develop and implement a plan to control it in accordance with the standards prescribed in Schedule IX to these Regulations.

(2) A facility, body corporate or organisation shall be required to report the data, sources of emissions with a view to undertaking its reduction in accordance with the implementation plan which shall be reviewed every three (3) years by the Agency.

(3) A facility, body corporate or organisation shall ensure that it measures the odour detection threshold and the odorous dilution ratio of the working environment or emissions.

(4) The dilution method of testing odours shall adopt American Society for Testing Materials (ASTM) or any other method as may be prescribed by the Agency to safeguard the health of the workers.

Burning of Fuels.

18.—(1) A facility, body corporate or organisation shall not burn, or be permitted to burn light fuel oil containing over 0.5 percent sulphur by weight in an existing source or a new source.

(2) A facility, body corporate or organisation shall not burn, or be permitted to burn medium fuel oil containing over 1.1 percent sulphur by weight.

(3) Notwithstanding the provisions of sub-regulation (1) and (2) of this regulation, heavy fuel oil with no more than 3 *per cent* sulphur may be burnt at a new or existing fuel combustion sources or a combination of both 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 source is less than the allowable sulphur dioxide emissions.

Abatement Technologies for Air Emissions.

19.—(1) A facility, body corporate or organisation which discharges gaseous substances shall treat such to the permissible limits as prescribed in Schedule IX to these Regulations.

(2) Treatment can be achieved through the use of appropriate pollution abatement technologies for minimizing the release of significant pollutants to the air including the following :

(*a*) stack gas scrubbing, carbon adsorption or combustion (for toxic organics) ;

(*b*) bag houses or cyclone (for particulate matter removal) ; and

(*c*) biological filters or any other appropriate technology.

Noise Standards.

20. Noise standards shall be subject to the National Environmental Noise Standards and Control) Regulations, S.I No. 35, 2009.

Noise Abatement.

21. A facility, body corporate or organization shall evaluate its installations and ensure that routine controls are sufficient to prevent risks of noise pollution.

Hearing Conservation Program.

22.—(1) A facility, body corporate/organisation shall administer a continuing, effective hearing conservation programme, whenever employee noise exposures equal or exceed an 8-hour time- weighted average sound level (TWA) of 90 decibels measures on the A scale (slow response) or, equivalent to a dose of 80 as stipulated by Occupational Safety and Health Act, Laws of the Federation of Nigeria 2004, OSHA 18001 as prescribed in Schedule X to these Regulations.

(2) For the purpose of hearing conservation programme, employee noise exposures shall be computed, regardless of the provision and the use of Personal Protective Equipment.

(3) An 8-hour time weighted average of 90 decibels shall be referred to as the action level.

Noise Monitoring.

23. Monitoring shall be repeated whenever a change in production, process, equipment or control, increases noise exposures to the extent that :

(*a*) additional employees may be subjected to risk at the action level ; or

(*b*) the attenuation as a result of hearing protectors being used by employees may be rendered inadequate to meet requirements of regulation 22(1) of these Regulations.

PART II—SAMPLING PROCEDURES

Collection and Analysis of Samples.

24. A facility, body corporate or organization shall collect and analyse samples according to Standard Operating Procedure (SOP) as developed by the Agency.

Spot Sampling for Physical or Chemical Parameters.

25. A spot sample for the purpose of analysis for all the tests including oil and grease, dissolved oxygen, pH, chlorine and sulphide shall be taken as follows :

(*a*) the whole sample volume is to be taken at one time, at the point of discharge or, where the discharge has stopped, at the nearest practicable point within one kilometre upstream and downstream of the point of discharge ; and

(*b*) the sample shall be analysed immediately after collection where possible but not later than 24 hours after taking the sample.

Composite Sampling for Physical or Chemical Parameters.

26. A composite sample for the purpose of analysis for all tests other than those for temperature and pH shall be taken by combining individual samples as follows :

(*a*) a minimum of five samples of equal volume of not less than 500 ml each shall be taken at the point of discharge or, where the discharge has stopped, at the nearest practicable point within one kilometre upstream and downstream of the point of discharge, at approximately equal intervals of time over a minimum period of four hours within any 24 hour period ;

(*b*) two of the composite samples collected when the discharge has been stopped, shall be used to prove the source and extent of pollution ;

(*c*) the samples shall be kept as cool as at site conditions licence ;

(*d*) sample analysis shall commence not later than 24 hours after taking the last sample ; and

(*e*) where the discharge has stopped or is intermittent, two grab samples shall be collected at the nearest practicable point within one kilometre upstream and downstream each of the point of discharge.

Sampling for Licence Classification.

27. The whole volume of spot samples for further laboratory analysis shall be taken at one time at the point of discharge.

Sampling for other Parameters.

28. Where full laboratory facilities do not exist on the site, or in the absence of a calibrated Dissolved Oxygen (DO) meter, the oxygen in the sample may be "*fixed*" at the time of sampling by adding any of the following reagents : 1 ml of manganese (II) sulphate followed by 1 ml of alkali-iodide-azide solution, (alkaline azide, sulphuric acid, permanganate, oxalate, manganous sulphate and alkaline iodide) or any other approved scientific method provided that :

(*a*) the stopper of the sample container shall be replaced and the solution shall be well mixed by shaking ; and

(4) Operator of treatment facility shall :

(*a*) issue certificate of destruction to the licensed owner of EL motor vehicle in accordance with the requirements as prescribed in Schedule XIV to these Regulations ;

(*b*) maintain copies of all EL motor vehicle manifests and/or receipts and make same available for sighting ;

(*c*) forward a copy of the EL motor vehicle manifests to the Agency within thirty days of removal ; and

(*d*) sign copies of the EL motor vehicle manifest.

(5) Operator of shredder EL motor vehicle treatment facility shall :

(*a*) ensure that shredded metals are stored in an appropriate place prior to collection by the end users ; and

(*b*) ensure that shredder residues are disposed of using Best Environmental Practices (BEP) and Best Available Technology (BAT).

Record keeping.

39.—(1) An authorized road or off-road motor vehicle license registration office shall upon registration, keep records and furnish the Agency in writing of the quantity so registered the preceding year by 30th of June of every year and shall also enter details to National Automotive Council Nationwide AUTO DATA platform at point of registration.

(2) A producer or importer of motor vehicle, shall keep records and furnish the Agency in writing of the quantity of all motor vehicles which have been imported the preceding year by the 30th of June of every year.

(3) An operator of any collection centre and recycling plant shall keep records and furnish the Agency in the prescribed format, quarterly of the quantity of EL motor vehicles received and the quantity dismantled and shall keep such records for a minimum period of 5 years.

Insurance Policy.

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

PART V—PERMITS

General Permits.

41.—(1) All permits shall be in writing and as set out in the National Environmental (Permitting and Licensing Systems) Regulations, 2009.

(2) A facility, body corporate or organisation shall obtain permit from the Agency for :

(*a*) discharging or causing to be discharged, any effluent, or oil in any form into water system, public drains, or underground injection and land ; and

(*b*) releasing of hazardous or toxic substances into the water, land or air of Nigerian ecosystem within the permissible limits as prescribed in Schedule VII to these Regulations.

Auto Body Shops.

32.—(1) A person, body-corporate, or organization, involved in operating auto body shops shall ensure that :

(*a*) paints free of heavy metals including but not limited to Lead Mercury are used ;

(*b*) all spray painting is done in an enclosed spray booth equipped with filters ;

(*c*) when cleaning spray guns with solvents, a smaller diameter tubing are used with less solvent ; and

(*d*) spent or used solvents from the process bath systems are not discharged into the drain, but through a pre-treatment system.

PART IV—END OF LIFE VEHICLES (ELV)

Registration/ Approval for EL Motor Vehicle.

33.—(1) A person, body-corporate or organization operating a dismantling centre shall :

(*a*) register with the Agency ; and

(*b*) provide information as specified in Schedule XII to these Regulations.

Vehicle Waste Handling.

34.—(1) A person, body-corporate or an organisation shall not discard, throw and or drop any Motor Vehicle component anywhere except in designated centers and shall ensure that :

(*a*) hazardous waste are segregated from other wastes ;

(*b*) motor vehicle components are not disposed of in trash receptacles or at a dump-site and or landfill ;

(*c*) the vehicle carcass is taken to the junk yard for transportation to the designated recycling-centre ; and

(*d*) open burning of waste shall be in accordance with the National Environmental (Control of Bush, Forest Fire and Open Burning) Regulations 2011.

(2) Open burning of tyre and other plastic component is prohibited.

(3) An operator of a facility, technician, assembler or scavenger of motor vehicle shall dispose waste in an environmentally sound manner and shall not :

(*a*) burn motor vehicle waste in the Nigerian environment ;

(*b*) dispose of motor vehicle waste alongside domestic and or municipal waste ;

(*c*) dispose of motor vehicle waste at dump site, land-fill site, water body, etc ;

(*d*) release Chlorofluorocarbons (CFCs) from cooling systems ; and

(*e*) release used oil into the environment.

Use of PPE.

35. A facility, body corporate, maintenance and repairs workshop, organisation involved in the handling of motor vehicle, recycling plants shall

(*b*) the remaining steps shall be carried out later in the laboratory.

Air Sampling for Analysis.

29.—(1) Measurements of air quality parameters shall take place at any facility, downwind and upwind.

(2) Measurement of total suspended particulate shall be by gravimetric method using air sampler or by any other recommended scientific method and the following shall be observed :

(*a*) a three sampling period (morning 8-10am, afternoon 12-2pm and evening 4-6pm) shall be adopted ; and

(*b*) the heavy metals level of total suspended particulate shall be determined using any referenced standard method using atomic absorption spectrometer.

(3) Gaseous pollutants shall be measured in a manner as may be approved by the Agency in any of the following ways :

(*a*) passive sampling method shall require the submission of analysis certificate along with results ;

(*b*) a three sampling periods (morning 8-10am, afternoon 12-2pm and evening 4-6pm) shall be adopted ;

(*c*) active sampling for NO_X shall use the Saltzman or any other recommended standard method ;

(*d*) active sampling for SO_2 shall use the West-Gaeke, hydrogen peroxide, conductimetry or any other recommended standard method ;

(*e*) active sampling for hydrocarbons shall use the adsorption on activated charcoal method ;

(*f*) continuous sampling of any gaseous air pollutant shall use instrument with detection range accommodating the maximum allowable limit of measured parameter ; and

(*g*) measurement shall last for at least 1 hour in every sampling location.

Noise Measurements.

30.—(1) Noise levels shall be measured with instrument having both A and C weighting, a resolution not more than 0.1 dB and fast or slow responses.

(2) Measurement shall be taken at least 3 meters from any barrier or other sound reflecting sources, at about 1.2-1.5 meters above ground level or working platform and shall last for at least 10 seconds.

(3) Daytime (07:00-22:00) and night time (22:00-7:00) measurements shall be taken at the fence line of any facility.

PART III—VEHICLE SERVICING AND MAINTENANCE

Servicing and maintenance.

31.—(1) A person, technician, body-corporate, or organization involved in repair, dismantling and re-assembling of Motor Vehicle shall :

(*a*) register with the Agency ; and

(*b*) operate in accordance with the guidelines for good housekeeping as prescribed in Schedule XI to these Regulations.

ensure that the technicians, repairers or scavengers wear appropriate Personal Protective Equipment (PPE) as prescribed in schedule XIII to these Regulations.

Citizens Obligation.

36. It shall be the responsibility of any individual, group of persons or body corporate, to :

(*a*) report any fly tipping and disposal of motor vehicle wastes in an undesignated location to the appropriate authority ;

(*b*) incorporate sound environmental care in their daily activities ;

(*c*) report all categories of abandoned vehicles on all roads to the appropriate authority ; and

(*d*) dispose of end-of-life vehicles at authorized treatment facility and obtain certificate of destruction as prescribed in schedule XIV to these Regulations.

Establishment of EL Motor Vehicle Treatment Facility.

37—(1) A person, or organisation intending to establish a treatment facility shall :

(*a*) register with the Agency ;

(*b*) provide information for approval to operate the facility as prescribed in Schedule XII to these Regulations ; and

(*c*) comply with the requirements prescribed in Schedule XII to these Regulations.

(2) All registered end- of -life treatment facilities shall ensure that :

(*a*) a treatment facility has sufficient capacity to treat the actual number of end-of-life vehicles that are designated to the facility ;

(*b*) where necessary, transportation of end-of-life vehicle from one treatment facility to an alternative treatment facility is carried out in accordance with the provisions of these Regulations ; and

(*c*) treatment facilities are reasonably accessible to any person who wishes to deliver an end-of- life vehicle.

Management of ELV.

38.—(1) An end-of-life treatment facility (dismantling center, junk yard, shredder or recycling facility) shall ensure that the facility is maintained in a clean and orderly condition.

(2) Treatment Facilities and Dismantling Centers shall ensure that all scrap motor vehicles are '*treated*' in an environmentally sound manner and this requires :

(*a*) removal of battery, tyres, LPG tank, activation of explosive devices, airbags and pre-tensioners, materials containing POP-BDEs (upholstery seats, headrest, steering wheel, dashboard etc) and

(*b*) separation and storage of Fuel, Motor oil, Transmission oil, Gearbox oil, Hydraulic oil, Cooling liquids, Anti-freeze, Brake fluids and Air conditioning fluids.

(3) Treatment facility and dismantling centre shall ensure that all materials listed above and those containing POP-BDEs in vehicles are managed in accordance to the BAT/BEP principles.

(3) Procedures for application for permits and revocation of such permits where they have already been issued shall be as contained in the National Environmental (Permitting and Licensing System) Regulations, 2009, S.I. No. 29.

(4) A permit is designed to allow the holder thereof to conduct activities listed in the permit only after strict compliance with conditions and applicable effluent limitations.

Permits.

42. A facility, body corporate or organisation involved in motor vehicle manufacturing, servicing and maintenance, dismantling or treatment facility shall obtain relevant permit from the Agency and such permits shall be in the format as contained in the *Annex* to these Regulations and shall include :

(*a*) Spare Parts (Second hand) Import Permit ;

(*b*) Dismantling Centre Permit ;

(*c*) Spent Oil Collection Permit ;

(*d*) Junk Yard Permit ;

(*e*) Industrial/Commercial Discharge Permit ; and

(*f*) Sludge Disposal Permit.

Effective Date/ Validity.

43. A permit shall become effective from the day of issuance and shall expire on December 31st of the second year and shall thereafter be renewable once every year.

PART VI—INDUSTRIAL EFFLUENT MONITORING AND REPORTING

Reporting Requirements.

44.—(1) A Permit holder, shall subject to categorical standards, comply with reporting requirements under the Agency's Permit including (but not limited to) Incidence Report and Monthly Effluent Data Sheet by submitting these documents to the Agency's Field Offices.

(2) The Permit holder shall submit to the Agency quarterly, a description of the nature, concentration and flow of the pollutants in the Monthly Effluent Data Sheet required to be reported.

(3) The report shall be based on sampling analysis performed in the period covered by the report. All reports shall be in compliance with the format as prescribed in Schedule XV to these Regulations.

(4) The Permit holder shall report all sample results for parameters listed on the Effluent Limitations and Monitoring Requirement, on the Industrial or Commercial Discharge Monitoring Report Forms as prescribed in Schedule XV to these Regulations.

(5) The Permit holder shall install monitoring equipment to facilitate accurate observation, sampling and measurement of the quality of waste discharges as required by the permit and such equipment shall be in working order and accessible to all authorized officials at all times.

(6) A permit holder who discharges effluents shall have in place :

(*a*) flow meters ;

(*b*) point inspection chambers ;

(*c*) recording apparatus ; and

(*d*) sampling test points/points of inspection.

(7) The Permit holder discharging or proposing to discharge effluent to a general sewer or treatment plant shall maintain the following :

(*a*) records of production ;

(*b*) water consumption and discharge flow records ;

(*c*) complete monitoring records as specified in these Regulations ;

(*d*) process monitoring records ;

(*e*) incident reports ;

(*f*) waste handling records ; and

(*g*) any other records necessary to demonstrate compliance with these Regulations.

(8) The Permit holder shall be required to file reports with the Agency where the permit holder :

(*a*) commits a serious violation ;

(*b*) fails to submit a 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*) has discharges that could cause problems to the Environment, including any sludge loadings.

Authorized Signatory.

45.—(1) The Permit holder shall sign the report referred to in sub-regulation (8) of regulation 44 and attach a copy of the Certificate of analysis from the Agency's accredited laboratory.

(2) Each report shall be signed by the appropriate officer.

(3) The report shall include the following certification statement :

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information herein submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Monitoring Records.

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

Confidential Information and Public Access to Records.

47. Without prejudice to any extant law, public access to records shall be governed by NESREA Act but effluent constituents and characteristics, shall not be recognized as confidential information.

PART VII—ENFORCEMENT

Enforcement Notices.

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

(2) An enforcement notice shall :

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

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

(*c*) specify the period within which those steps must be taken.

(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 by or contravenes a condition of the permit.

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

(*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 ; and

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

Equity.

49. Every facility, body corporate or organisation shall be given equal treatment with respect to inspection and enforcement of relevant laws.

Mode of Delivery.

50. An Enforcement notice shall be delivered by hand, registered postor courier, electronic transmission, newspaper publication, or pasted at the facility or registered premises of the organisation.

Enforcement notice Reminder.

51.—(1) Where a person fails to comply with the enforcement notice within the specified period as contained under of regulation 48(2) of these Regulations, a second notice shall be served.

(2) Failure to comply with the second notice in sub-regulation (1) of this regulation within the specified time limit will lead to issuance of a suspension notice or any other punitive action as may be necessary.

Suspension of Permit.

52.—(1) Notice shall be served or any other punitive action taken as may be necessary .

(2) Where a suspension notice is served pursuant to these Regulations the permit shall, on the service of such notice cease to have effect as stated in the notice.

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

(4) Notwithstanding the provisions of these Regulations, the Agency shall have the power to enter and seal any facility found contravening any of the provision of these Regulations.

PART VIII—CONTRAVENTIONS/OFFENCES

Offences General.

53.—(1) It shall be an offence for a person to operate any treatment facility (dismantling centre, Junk yards or recycling facility) without registration with the Agency.

(2) It shall be a contravention for a person to manufacture, import, assemble, or distribute motor vehicle or operate a dismantling centre or junk yard without making provision for its end-of-life collection.

(3) It shall be a contravention for a person, organization, manufacturer, importer, assembler, distributor of motor vehicle to :

(*a*) discard, throw, drop any motor vehicle or municipal waste anywhere except in authorized collection centre ;

(*b*) dispose motor vehicle waste at dump site, landfill site, water body, or any other place except at the designated recycling plant ;

(*c*) burn tyres or other plastic components in the environment ;

(*d*) release Chlorofluorocarbons (CFCs) from cooling system ;

(*e*) transport motor vehicle waste to non-designated recycling plant ;

(*f*) fail to supply information as required for approval to operate treatment facility ;

(*g*) fail to maintain treatment facility in (an environment friendly) clean and orderly condition ;

(*h*) fail to comply with the decommissioning conditions of treatment facility ;

(*i*) fail to submit to the Agency within a specified period, information or data about materials received at facility ; and

(*j*) fail to submit an Environmental Audit Report as required by these Regulations.

Contravention of Permit Condition.

54. It is a contravention where a person fails to comply with :

(*a*) any condition stipulated under a permit ;

(*b*) the requirements of an enforcement notice or closure notice under these Regulations ; and

(*c*) any other requirement imposed by a notice served by the Agency without reasonable excuse.

False Statement.

55. It shall be a contravention to have in possession a document that is likely to mislead or deceive the Agency or make a statement which is known to be false or misleading particularly, where the statement is made :

(*a*) in purported compliance with a requirement to furnish any information pursuant to the provisions of these Regulations ;

(*b*) for the purpose of obtaining a permit for the body corporate or organisation for variation, transfer or surrender of a permit ;

(*c*) to intentionally make a false entry in any record pertaining to the permit ; and

(*d*) with intent to deceive, to forge or use a document issued or authorized to be issued under any condition of a permit.

Failure to comply with abatement measures.

56.—(1) It shall be a contravention if a person fails to :

(*a*) take reasonable measures to remove or otherwise treat and dispose of any effluent to minimize adverse effects ;

(*b*) take measures required by the Agency after unauthorized release of effluent ;

(*c*) remediate the environment to the standard prescribed by the Agency ;

(*d*) furnish all information to the inspector ;

(*e*) remove equipment containing materials causing release into the environment from place when requested by inspector ;

(*f*) produce document when requested by the inspector ;

(*g*) comply with the guidelines with respect to the handling, storing and transport of any effluent ; and

(*h*) ensure the use of Personnel Protective Equipment (PPE) in the course of operational activity in the facility.

(2) It shall be an offence for a body corporate or organisation to :

(*a*) handle effluent in a manner which causes adverse effect to human health and the environment ;

(*b*) intentionally obstruct the inspectors from performing their duties ;

(*c*) dismiss, suspend or sanction employees who report any contravention of these Regulations ;

(*d*) impose penalty on any employee who reports cases of contravention of these Regulations to the Agency ;

(*e*) transports effluent and sludge which are not covered by a manifest,completely enclosed, or secured ; and

(*f*) transports hazardous effluent and sludge in bulk without prior authorization from the Agency.

57. It shall be an offence if a person fails to : Failure to Report.

(*a*) maintain records of all discharges ; and

(*b*) file quarterly and annual reports of all discharges.

58. It shall be an offence for a person to : Discharge of Effluent beyond Permissible Level.

(*a*) release effluent and sludge into the environment beyond the permissible level ;

(*b*) fail to report release of effluent and sludge into the environment in excess of permissible level as contained in these Regulations ; and

(*c*) fail to take reasonable measures to prevent, reduce or remedy the adverse effect of effluent, sludge and emissions released into the environment.

PART IX—FINES/PENALTIES

PENALTY

59.—(1) A person who violates the provisions of regulations 53 (1), (2) and (3) (*a*)-(*j*) of these Regulations commits an offence and shall on conviction be liable to a fine not less than ₦500,000.00, or to imprisonment for a term not less than two years or to both such term and imprisonment. Fine/ Penalty.

(2) A person who violates the provisions of regulations 54 to 58 of these Regulations commits an offence and shall on conviction, be liable to a fine not less than ₦200,000.00 or to imprisonment for a term not less than six months or to both such fine and imprisonment and an additional fine of ₦5,000.00 for every day the offence subsists .

(3) Where an offence under regulations 53 (1), (2) and (3) (*a*)-(*j*) of these Regulations is committed by a body corporate, it shall on conviction, be liable to a fine not less than ₦1,000, 000.00 and an additional fine of ₦50,000 for every day the offence subsists.

PART X—MISCELLANEOUS

60. The environmental performance requirements shall be based upon agreed criteria and rating for each sector. Performance Criteria and Rating.

PART XI—INTERPRETATIONS

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

"*Act*" means the National Environmental Standards and Regulations Enforcment Agency (Establishment) Act, 2007 ;

"*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 that result 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 ;

"*ambient air*" means air occurring at a particular time and place out of structure ;

"*appropriate authority*" means NESREA or any other relevant Governments Agency ;

"*assembler*" means a person or groups of persons who bring or fix together, separate parts of motor vehicle ;

"*authorised treatment facility*" means any facility (collection, dismantling, junk yard and recycling) operated by an establishment or undertaking carrying out treatment and which is licensed or otherwise permitted under or by virtue of any legislation made in Nigeria, as stated in these Regulations ;

"*auto body shop*" means any industry that provides repair and customization work to the interior and body of passenger cars, trucks, vans and trailers (industry that specialize in certain auto repairs; for example, panel beating shop, paint shops ;

"*Best Available Technology (BAT)*" means the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting discharges ;

"*Best Environmental Practices (BEP)*" means actions carried out to mitigate environmental impact of a facility ;

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

"*carcass*" means worthless body of the vehicle that is meant for treatment facility ;

"*collection centre point*" means a centre or point where ELV are collected and stored temporarily for the purpose of recycling ;

"*cooling systems containing refrigerants*" means refrigerators, chillers or air conditioners ;

"*development control*" means the arm of the government that is responsible for development activities of a state/area ;

"*Director General/Chief Executive Officer (DG/CEO)*" means the Director General of the National Environmental Standards and Regulations Enforcement Agency (NESREA) ;

"*dismantling*" means disassembling, or substantially altering a motor vehicle's components ;

"*distributor*" means any person who makes available motor vehicle or components on a commercial basis to the party who is going to use it ;

"*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 refers to wastes discharged into surface waters ;

"*end-of-life*" means motor vehicles that have attained end of their usefulness ;

"*enforcement*" means actions to obtain compliance with environmental laws, rules, regulations and agreements or obtain penalties or criminal sanctions for violations ;

"*enforcement officer*" means :

(*a*) an officer of NESREA who is authorised in writing by NESREA to act as an enforcement officer for these Regulations, or

(*b*) a person appointed by the Minister responsible for Environment matters, authorising him in writing to act as an enforcement officer for these Regulations ;

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

"*environmental assessment report*" means a report prepared for an organisation or body corporate which identifies potential or existing environmental contamination liabilities ;

"*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 Federal Ministry responsible for Environment matters after duly completed EIA process ;

"*Environmental Management Plan (EMP)*" means a plan that describes the process that an organization will follow to maximize its compliance and minimize harm to the environment. This plan also helps an organization map its progress toward achieving continual improvements ;

"*Environmentally Sound Manner (ESM)*" means the best management practices for motor vehicle recyclers that can be used in conjunction with recycling Industry operating standards to ensure compliance with all applicable regulations and ensure environmental and workers protection ;

"*expansion*" means an increase in size, volume or other physical dimensions of an activity such that the increase may cause an adverse effect if not properly mitigated ;

"*hazardous wastes*" means substances which even in low concentrations are harmful to animals, plants, human health and the environment and may take the form of solids, liquids or sludge.

"*ICNRP*" means International Commission for Non ionization Radiation Protection ;

"*importer*" means a person or body corporate who, in the ordinary course of conduct of a trade, occupation or profession, imports motor vehicle.

"*influent*" means either processed waste water or raw water from a river, stream, spring or canal, or water abstracted from underground and used by a facility ;

"*inspection officer or inspector*" means an officer who has the legal authority to enter facilityies to conduct an inspection under environmental legislation (*Acts*), guidelines and policies ;

"*junk yard*" means any place of storage or deposit, of motor vehicle carcass intended to be transported to treatment facility ;

"*large scale business*" means any facility that has more than fifty employees.

"*Minister*" means the Minister responsible for environment matters or the appropriate government structure operating at that time ;

"*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 ;

"*motor vehicle*" means a self-propelled wheel that does not move on the rail which includes trucks, trailers, tractors, cars, tricycles, motor cycles, boats e.t.c. ;

"*motor vehicle and miscellaneous assembly sector*" means a facility, or body corporate or organisation involved in manufacturing, assembling, servicing, maintaining, dismantling or recycling any components contained in the categories of motor vehicle as listed in these Regulations.

"*permit*" means an official document, authorization, license, or equivalent control document issued by the Agency to implement the requirements of these regulations to discharge effluent especially for a limited period of time ;

"*PolybrominatedDiphenyl Ethers (PBDEs)*" mean hazardous chemicals that can be added to many consumer products found in homes, office, automobile amongst others ;

"*Persistence Organic Pollutants (POPs)*" means a group of organic chemicals that are resistant to environmental degradation ;

"*permit holder*" means a person authorised by a permit to carry out a specific function ;

"*person*" means a natural and juristic personality including a facility ;

"*producer*" means the local manufacturer or importer of record of motor vehicle and other motor vehicle components both new and used to be placed on sale at first invoice in the Nigerian market ;

"*5Rs*" means Reduce, Repair, Reuse, Recycle and Recover ;

"*recovery*" means any operation leading to the creation of value of material ;

"*recycling*" means the reprocessing in a production process of the waste materials for the original purpose or for other purposes ;

"*reuse*" means any operation by which motor vehicle 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 ;

"*scavenger*" means a person who searches and picks waste that can be useful for recycling purposes by people that will convert them to other useful forms ;

"*servicing*" means a series of maintenance procedures carried out at a set time interval or after the vehicle has travelled a certain distance.

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

"*Small scale business*" means any facility that has less than ten employees ;

"*standards*" means a consensus document with limits ;

"*Treated sludge*" means the sludge which has undergone biological, chemical, heat treatment, long term storage or any other appropriate process so as to reduce or completely eliminate its toxicity or hazards to human and the environment ;

"*treatment*" means any activity after a motor vehicle waste has been handed over to a facility for depollution, disassembly, shredding, recovery or preparation for disposal and any other operation carried out for the recovery or disposal or both of the motor vehicle waste ;

"*used motor vehicle and components*" means secondhand motor vehicle and components meant for reuse ;

"*vehicle*" means a mobile machine that is designed or used to transport people or cargo and includes bicycles, cars ,motorcycles, tricycles, trains, ships, boats, aircraft, etc. ;

"*water bodies*" means underground water, ground water, river, stream, spring, canal, reservoir, well, lake, lagoon, ocean etc ;

"*water efficient device*" means any device that minimizes the use of water in the production process ;

"*wastewater system*" means a sewer (excluding house sewers). conduit, pump, engine or other appliance used or intended to be used for the reception, conveyance, removal, treatment and disposal of effluent ;

"*watercourse*" means any natural or artificial channel, pipe or conduit (excluding the sewerage system), carrying, or that may carry, and discharges water directly or indirectly into a water body ;

"*water pollution*" includes introducing litter, sediment, oil, grease, wash water, debris, storm water system, ground water, flammable liquids such as paint, etc. into waters or placing such material where it is likely to enter waterways ;

"*writing*" includes text that is :

(*a*) transmitted by electronic means ;

(*b*) received in legible form ; or

(*c*) capable of being used for subsequent reference ;

"*year*" means a calendar year commencing on 1st January.

Citation.

62. These Regulations may be cited as the National Environmental (Motor Vehicle and Miscellaneous Assembly) Regulations, 2013.

SCHEDULE I *Regulation* 2 (1)(*c*)

GUIDELINES FOR PREPARING ENVIRONMENTAL MANAGEMENT PLAN (EMP)

An Environmental Management Plan (EMP) describes the process that an organization will follow to maximize its compliance and minimize harm to the environment. This plan also helps an organization map its progress toward achieving continual improvements.

Regardless of the organization's situation, all environmental plans must include the following elements :

(*a*) policy ;

(*b*) planning ;

(*c*) implementation and operation ;

(*d*) impact characterisation ;

(*e*) checking and corrective action ; and

(*f*) management review and commitment.

Policy : Policy statements are important to an organisation because the organisation relies on a core set of beliefs. These environmental guiding principles will enable all members of an organisation to focus on the same objective. They provide an opportunity for outside interests to understand the operation of the organisation. The policy should be focused, concise and easy to read. The environmental policy should address the following :

(*a*) compliance with legal requirements and voluntary commitments ;

(*b*) minimising waste and preventing pollution ;

(*c*) continual improvement in environmental performance, including areas not subject to these Regulations ;

(*d*) sharing information on environmental performance with the community.

Planning : The planning should define the organisation's environmental footprints and set goals. Goals and objectives should be focused on maximising their positive impacts on the environment. When evaluating, the following elements should be considered :

(*a*) impacts on the environment through its activities, products and services ;

(*b*) legal requirements associated with protecting the environment ;

(*c*) meaningful and focused environmental objectives and targets.

Implementation and Operation : Implementation and operation should define the activities that the organisation will perform to meet its environmental objectives and targets. This section should identify the activity that each person is responsible for, ensure completion and set targets for each of the identified activity. In addition, this area should specify employee training, communication and outreach activities that are necessary to ensure successful implementation of the plan.

*Checking and Corrective Action :*The EMP should describe the process that will be followed to verify proper implementation and how problems will be corrected in a timely manner. Routine evaluation and continual improvement on the process is necessary to make sure that the plan successfully leads towards the completion of environmental objectives and targets.

Management Review and Commitment to Improvement : Routine management review and support is a necessary and meaningful tool for the organization. This should identify the routine management evaluations that will be conducted to ensure that the plan is appropriately implemented to meet its environmental objectives.

SCHEDULE II *Regulation* 3(1)(*c*)

GUIDE TEMPLATE FOR EMERGENCY PROCEDURES IN MOTOR VEHICLE FACILITY

CONTENTS

STEP 1—ESTABLISH A PLANNING TEAM

There shall be persons responsible for developing the emergency management plan, and the following actions taken :

(*a*) form the Team to include the local Community likely to be affected ;

(*b*) establish Authority ;

(*c*) issue a Mission Statement in English and local language ;

(*d*) establish a Schedule and 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, and includes the following actions.

(*a*) where do you stand right now ?

(*b*) meet with outside groups.

(*c*) identify codes and regulations.

(*d*) identify critical products, services and operations

(*e*) identify internal resources and capabilities.

(*f*) identify external resources.

(*g*) do an insurance review.

(*h*) conduct a vulnerability analysis.

(*i*) list potential emergencies.

(*j*) estimate probability.

(*k*) assess the potential human impact.

(*l*) assess the potential business impact.

(*m*) assess the potential property impact.

(*n*) assess internal and external resources.

(*o*) evaluate the capabilities and hazards. .

STEP 3 - DEVELOP THE PLAN

Emergency planning must become part of the corporate culture.

Look for opportunities to build awareness ; to educate and train personnel ; to test procedures ; to involve all levels of management, all departments and the community in the planning process ; and to make emergency management part of what personnel do on a day-to-day basis.

STEP 4-IMPLEMENT THE PLAN

Implementation means more than simply exercising the plan during an emergency, it also means acting on recommendations made during the vulnerability analysis, integrating the plan into company operations, training employees and evaluating the plan, and includes the following actions :

(*a*) integrate the plan into facility or organisation's operations ;

(*b*) conduct training, drills and exercises ; and

(*c*) activate the plan as and when necessary.

STEPS 5 - RISK ASSESSMENT

How to assess the risks in your workplace entails the following :

(*a*) identifying the hazards ;

(*b*) deciding who might be harmed and how ;

(*c*) evaluating the risks and deciding on precautions ;

(*d*) recording your findings and implementing them ; and

(*e*) reviewing your assessment and updating if necessary.

SCHEDULE III *Regulation* 6 (1)

BEST PRACTICES

(1) Every industry shall develop a data base for all effluent generated.

(2) Every industry shall install.

(*a*) anti-pollution equipment for the detoxification/treatment of effluent and sludge ;

(*b*) efficient effluent treatment plant based on the Best Practicable Technology (BPT) and Best Environmental Practices ;

(*c*) containment equipment for spills in case of accidental discharge ;

(3) Every person, bodycorporate or organisation shall adopt in-plant waste and energy reduction and pollution prevention strategies.

(4) Every person, bodycorporate or organisation shall :

(*a*) provide a buffer zone between a facility and the nearest human settlement in accordance with the Planning Permit ;

(*b*) provide appropriate bund walls around tank farms for containment in case of accidental discharges ;

(*c*) provide adequate protection (e.g. Shield) for ionizing radiations emanating from manufacturing processes ; and

(*d*) report an unusual or accidental discharge of waste from a facility to the nearest office of the Agency within 24 hours of the discharge.

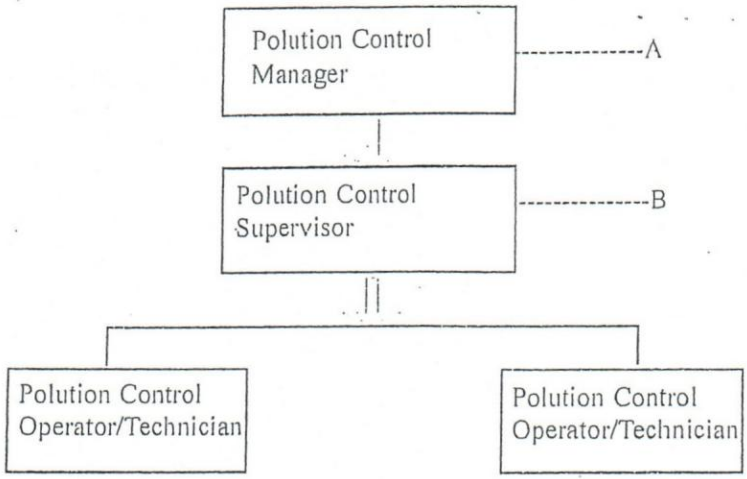
SCHEDULE IV *Regulation* 7(1)(2)

ORGANIZATIONAL SYSTEM AND FUNCTIONS OF POLLUTION CONTROL MANAGER(S)

(1) Each facility shall be mandated by the Agency to have an organizational system that will carry out Internal Environmental Auditing of the facility as well as liaise with NESREA and other relevant Government Authorities.

(2) The organizational system shall have Pollution Control Supervisor, Pollution Control Manager and Pollution Control Chief Manager which shall be elected, appointed or outsourced to a NESREA accredited Consultant. These shall be certified by the Agency through a National qualifying examination.

Organization for Pollution Prevention



FUNCTIONS :

(*a*) manages the pollution control issues of the facility ;

(*b*) assists the Manager and directs the Operators/Technicians ; and

(*c*) deals with technical operations of the pollution abatement equipment.

NOTE : (*c*), depends on the size of the facility; for a large facility there shall be PCM for Air, Land and Water.

(2) SPECIFIC DUTIES OF THE POLLUTION CONTROL MANAGER (PCM)

The specific duties of the PCM are :

(*a*) to ensure that the responsibilities are very clear for all the staff involved in pollution control ;

(*b*) to ensure that daily pollution control practices are complied with ; and

(*c*) to maintain smooth and proper environmental and safety communications within the facility and the regulatory authorities as well as the host community.

(3) CONCRETE POLICIES CONCERNING INDUSTRIES' POLLUTION CONTROL

1. Management concerning pollution control of facilities are :

(*a*) improvement and operation of effective environmental management system ;

(*b*) communication with NESREA's headquarters ;

(*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*) cooperation with interested parties such as other related companies.

2. addressing corporate-wide environmental measures entails :

(*a*) recognition of the business risk relative to the environmental management system ;

(*b*) recourse management including maintenance of human resources for pollution control and their competency ;

(*c*) establishing a corporate-wide environmental management system including risk information feed-back system ; and

(*d*) establishing a redundant monitoring, assessment and self-improvement system ;

(*e*) establishing a contingency plan and its verification.

SCHEDULE V *Regulation* 8 (3)

BANNED /RESTRICTED CHEMICALS

Chemical/Pesticide	*CAS Number*
ROTTERDAM CONVENTION PART 1: Banned Chemicals and Pesticides	
2,4,5-T	93-76-5
Aldrin	309-00-2
Binapacryl	485-31-4
Captafol	2425-06-1
Chlordane	57-74-9
Chlordimeform	6164-98-3
Chlorobenzilate	510-15-6
DDT	50-29-3
Dieldrin	60-57-1
DNOC and its salts (such as ammonium salt, potassium salt and sodium salt)	534-52-1;2980-64-5;5787-96-2;2312-76-7
Dinoseb and its salts and esters	88-85-7
EDB (1,2-dibromoethane)	106-93-4
Ethylene dichloride	107-06-2
Ethylene oxide	75-21-8
Fluoroacetamide	640-19-7
HCH (mixed isomers)	608-73-1
Heptachlor	76-44-8
Hexachlorobenzene	118-74-1
Lindane (gamma-HCH)	58-89-9
Mercury Compounds	
Monocrotophos	6923-22-4

Parathion	56-38-2
Parathion (all formulations - aerosols, dustable powder (DP), emulsifiable concentrate (EC), granules (GR) and wettable powders (WP) - of this substance are included, except capsule suspensions (CS))	56-38-2
Pentachlorophenol	87-86-5
Toxaphene (Camphechlor) dustable powder formulations containing a combination of benomyl at or above 7%, carbofuran at or above 10% and thiram at or above 15%	8001-35-2 17804-35-2;1563-66-2;137-26-8
Methamidophos (Soluble liquid formulations of the substance that exceed 600g active ingredient/l)	10265-92-6
Methyl-parathion (emulsifiable concentrates (EC) with 19.5%, 40%, 50%, 60% active ingredient and dusts containing 1.5%, 2% and 3% active ingredient)	298-00-0
Monocrotophos	6923-22-4
Phosphamidon (Soluble liquid formulations of the substance that exceed 1000g active ingredient/l)	13171-21-6 (mixture, (E)&(Z)-isomers) 23783-98-4 ((Z)-isomer), 297-99-4 ((E)-isomer)
Actinolite asbestos	77536-66-4
Amosite, asbestos	12172-73-5
Anthophylite	77536-67-5
Tetraethyl lead	78-00-2
Tetramethyl lead	75-74-1
Tremolite	77536-68-6
Tris(2,3 dibromopropyl)phosphate	126-72-7
Alachlor	15972-60-8
Aldicarb	116-06-3
PART 2:—SEVERELY RESTRICTED CHEMICALS AND PESTICIDES	
Polybrominated Biphenyls (PBBs)	36355-01-8(hexa-) 27858-07-7(octa-) 13654-09-6(deca-)

Polychlorinated Biphenyls (PCBs)	1336-36-3
Polychlorinated Terphenyls (PCTs)	61788-33-8
STOCKHOLM CONVENTION PART 3:—PERSISTENT ORGANIC POLLUTANTS - (POPs)	
Aldrin	309-00-2
Chlordane	57-74-9
DDT	50-29-3
Dieldrin	60-57-1
Dioxins	
Endrin	
Furans	
Heptachlor	76-44-8
HexaChloro Benzene (HCB)	11-74-1
Polychlorinated Biphenyls (PCBs)	1336-36-3
Mirex	
Toxaphene	8001-35-2
a-hexachlorocyclohaxazne	319-84-6
B-hexachlorocyclohaxazne	319-85-7
Chlordecone	143-50-0
Hexabromobiphenyl	36355-01-8
hexabromodiphenyl ether and heptabromodipheny lindane (gamma- hexachlorocyclohexane)	58-89-9
Pentachlorobenzene	608-93-5
tetrabromodiphenyl ether and pentabromodiphenyl ether	
perfluorooctanesulfonic	
acid (PFOS) its salt and perfluorooctanesulfonyl fluoride (PFOS)	
MONTREAL PROTOCOL PART 4- OZONE DEPLETING SUBSTANCES	
Trichlorofluoromethane	75-69-4
Dicholrodifluoromethane	75-71-8
Trichlorotrifluoroethane	76-13-1
Dichlorotetrafluoroethane	76-14-2
Bromochlorodifluoromethane	76-15-3 353-59-3
Bromotrifluoromethane	75-63-8
Dibromotetrafluoroethane	76-15-3
Chlorotrifluoromethane	75-72-9

Pentachlorofluoroethane	354-56-3
Tetrachlorodifluoroethane	76-12-0
Tetrachloromethane or carbon tetrachloride	56-23-5
Trichloroethane or methyl chloroform	71-55-6
Chlorodifluoromethane Dichlotrifluoroethane	75-45-6 306-83-2
Chlorotetrafluoroethane	2837-89-0
Dichlorofluoroethane	1717-00-6
Clorodifluoroethane	75-68-3
Methyl Bromide or Bromoethane	74-83-9
1,2-dibromoethane (EDB)	106-93-4
BASEL CONVENTION All wastes arising from the chemicals covered under the Rotterdam and Stockholm Conventions as well as the Montreal Protocol	
OTHERS	
Acetic acid	64-19-7
Acetone	67-64-1, 7217-25-6
Acetyl bromide	506-96-7
Allylisothiocyanate	57-06-7
Ammonia (35% or greater)	
Ammonia (less than 35%)	7664-41-7
Ammonium Nitrate	6484-52-2
Antimony pentachloride	7647-18-9
Antimony trihydride	7803-52-3
Arsine	7784-42-1
Arsenical substances	
Boric acid; Sodium borate	10043-35-3, 1330-43-4
Boron tribromide	10294-33-4
Boron trichloride	10294-34-5
Boron trifluoride	7637-07-2
Bromine; Bromine solutions Captafol	7726-95-6, 2939-80-2, 2425-06-1
Carbamates,	598-55-0
Bendiocarb	22781-23-3
BPMC (Fenobucarb)	3766-81-2
Mercaptodimethur (methiocarb)	2032-65-7
Calcium Ammonium Nitrate	

Carbon monoxide	630-08-0
Carbon tetrafluoride	75-73-0
Chlorinated hydrocarbons	85422-92-0
Chlorine	7782-50-5
Chlorine trifluoride	7790-91-2
Chlorobenzenes	108-90-7
Chlorophenols	25167-80-0
Chlorophenoxyacids; their salts, esters, amines	94-74-6
Chlorosilanes	
Chlorosulphonic acid	7790-94-5
Chromic acid	1333-82-0
Cyanides	
Diborane	19287-45-7
Dibromochloropropane	96-12-8
Diethyl sulphate	77-78-1
Epichlorohydrin	106-89-8
Ethyl mercaptan	75-08-1
Ethylene imine	151-56-4
Ferric chloride	7705-08-0
Fipronil	120068-37-3
Fluorine	7782-414
Fluoroacetamide	640-19-7
Formic acid	64-18-6
Germane	
Hydrazine anhydrous; Hydrazine aqueous solutions	302-01-2
Hydrochloric acid	7647-01-0
Hydrofluoric acid	7664-39-3
Hydrogen chloride	7647-01-0
Hydrogen cyanide; Hydrocyanic acid	74-90-8,
Hydrogen Peroxide	7722-84-1
Hydrogen selenide	7783-07-5
Isocyanates	
Mercury compounds	
including inorganic mercury	
compounds, alkyl mercury	
compounds, alkyloxyalkyl	
and aryl mercury compounds,	
and other organic compounds of mercury	
Metanil yellow (sodium salt of metanilylazodiphenylamine)	587-98-4

Methyl chloride	74-87-3
Methyl mercaptan	74-93-1
Monomethyltetrachlorodiphenyl methane	76253-60-6
Monomethyl-dichloro-diphenyl methane	76253-60-24
Monomethyl-dibromodiphenyl methane	99688-47-8
Neonicotinoid compounds used as pesticides	138261-41-3
Nitric acid (95% or greater)	
Nitric acid (less than 95%)	
Nitric oxide	10102-43-9
Nitrogen trifluoride	7783-54-2
Nitromethane	75-52-5
Oleum	8014-95-7
Orange II [sodium salt of p-(2-hydroxy-1-naphthylazo) benzene sulphonic acid]	
Organic peroxides	
Organo-tin compounds	
Perchloromethylmercaptan	594-42-3
Perfluorooctanesulfonate (PFOS)	29457-72-5
Phenols	
Phenol ethoxylate	9016-45-9
Phosgene	75-44-5
Phosphides	
Phosphine Phosphorus compounds, excepting Dimethoate Fenchlorphos Fenitrothion Phenthoate Profenophos Prothiophos Quinalphos	603-35-0
Phosphorus oxybromide	7789-59-5
Phosphorus oxychloride	10025-87-3
Phosphorus pentabromide	7789-69-7
Phosphorus pentachloride	10026-13-8
Phosphorus pentafluoride	7647-19-0
Phosphorus trichloride	7719-12-2
Polybrominateddiphenyl ethers	

Potassium hydroxide	1310-58-3
Potassium Nitrate	7757-79-1
Potassium Perchlorate	7778-74-7
Prochloraz	67747-09-5
Pyrethroid compounds used as pesticides	
Sodium azide	26628-22-8
Sodium Chlorate	7775-09-9
Sodium hydroxide	1310-73-2
Sodium Nitrate	7631-99-4
Sulphurtetrafluoride	7783-60-0
Sulphur trioxide	7446-11-9
Sulphuric acid	7664-93-9
Sulphuryl chloride	7791-25-5
Sulphuryl fluoride	2699-79-8
Titanium tetrachloride	7550-45-0
Tungsten hexafluoride	7783-82-6
Urea	57-13-6

SCHEDULE VI *Regulation* 9 (1)

GUIDELINES FOR EXTENDED PRODUCERS RESPONSIBILITY PROGRAMME

1. As part of the Strategic Sectoral Alliance Programme of the Agency, all private individuals, manufacturers, assemblers, dealers, dismantlers, recyclers, and importers of motor vehicle and spare part components shall partner with the Agency to establish an effective Extended Producer Responsibility Programme. The manufacturers and importers shall submit a proposal for an Extended Producer Responsibility Programme to the Agency for approval; such a proposal shall include :

New Motor Vehicle Only.

(*a*) a proof of the existence of a manufacturers and importers process for the collection, handling, transportation and final treatment of post-consumer motor vehicle products regardless of who is the original brand owner ;

(*b*) new and Used motor vehicle, spare part or component but not limited to branded post-consumers products ; and

(*c*) Incorporation of the principles of a pollution prevention hierarchy by moving progressively from disposal of used spare parts or components toreuse, repair, recover and recycle.

2. All private individuals, manufacturers, assemblers, dealers, dismantlers, recyclers and importers of motor vehicles and spare parts components shall submit on or before June 30th in each year to the Agency, an annual report on their extended producer responsibility program during the previous fiscal year including, but not limited to, information in respect of :

The Strategic Sectoral Alliance Programmeof the Agency.

(*a*) the total amount of consumer Motor Vehicle sold and post-consumer products collected ;

(*b*) the total amount of post-consumer Motor Vehicle products processed or in storage ;

(*c*) the types of processes used to repair, reuse, recycle or recover post-consumer Motor Vehicle products shall incorporate the priorities of pollution prevention hierarchy by moving progressively from disposal to recovery, repair, reuse, recycling ;

(*d*) the location of any long-term containment or final treatment and processing facilities for post-consumer product ;

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

(*f*) any other information requested by the Agency.

Responsibilities of the Manufacturer.

3. The manufacturer, spare parts and components dealers shall be responsible for :

(*a*) collecting any motor vehicle-waste generated during the manufacture of Motor Vehicle and channeling the same for recycling ;

(*b*) ensuring that all motor vehicles are provided with a unique serial number or individual identification code for tracking the products in the EL motor vehicle-waste management system ;

(*c*) collecting motor vehicle-waste generated from the end-of-life of their products in line with the principle of Extended Producer Responsibility (EPR), and to ensure that such motor vehicle-wastes are channeled to registered dismantlers or recyclers ;

(*d*) setting up collection centers or take back system either individually or collectively for all motor vehicles at the end of their life ;

(*e*) financing, and organizing a system to meet the costs involved in the environmentally sound management of motor vehicle-waste generated from the end-of-life of its own products and historical waste available on the date from which these regulations come into force. Such financing system shall be transparent. The producer may choose to establish such financial system either individually or by joining a collective scheme ;

(*f*) providing contact details such as address, telephone numbers, helpline numbers and e-mail of dealers and authorized collection centers to consumers or bulk consumers so as to facilitate return of used EL motor vehicle ;

(*g*) incorporating the principles of energy efficiency in all manufactured motor vehicle ;

(*h*) creating awareness through publications, advertisements, posters, or by any other means of communication and information booklets accompanying the equipment, with regard to the following :

(*i*) information on hazardous constituents in motor vehicle ;

(*ii*) information on hazards of improper handling, accidental breakage, damage or improper recycling of motor vehicle ;

(*iii*) instructions for handling the dismantling scrap after its use, along with the Dos and Don'ts ;

(*iv*) promoting acquisition of motor vehicle products with energy efficiency measures ; and

(*v*) affixing the symbol given below on the products to prevent motor vehicle-waste from being dropped in garbage bins containing waste for disposal ;

(*i*) obtaining an authorization from the Agency in accordance with Schedule XII ;

(*j*) maintaining records of the motor vehicle-waste handled. Such records shall be available for ensuring full compliance by the appropriate authority ; and

(*k*) filing annual returns to the Agency on or before the 30th day of June following to the financial year to which that return relates.

Responsibilities of Collection Centres.

4. A person operating a collection centre either individually or collectively shall :

(*a*) obtain authorization in accordance with procedures prescribed under ScheduleXII from the Agency as the case may be and provide details such as address, telephone helpline numbers, e-mail, etc. of such a collection centre to the general public ;

(*b*) ensure that the motor vehicle-waste collected by them are stored in a secured manner till these are sent to a producer, registered dismantler or recycler as the case may be ;

(*c*) ensure safe transportation of the EL motor vehicle ;

(*d*) ensure that no damage is caused to the environment during storage and transportation of EL motor vehicle ;

(*e*) file annual returns to the Agency on or before the 30th day of June following the financial year to which that returns relate ; and

(*f*) maintain records of the EL motor vehicle handled and such records should be available for scrutiny by the appropriate authority.

5. Consumers of motor vehicle shall ensure that EL motor vehicle are deposited with the dealer or authorized collection centres.

Responsibilities of Dismantler:

6. Every dismantler shall :

(*a*) obtain registration from the Agency in accordance with the procedures prescribed in Schedule XII ;

(*b*) ensure that no damage is caused to the environment during storage and transportation of EL motor vehicle ;

(*c*) ensure that the dismantling processes do not have any adverse effect on the environment and health ;

(*d*) ensure that the facility and dismantling processes are in accordance with the standards or guidelines published by the Agency from time to time ;

(*e*) ensure that dismantled EL motor vehicle are segregated and sent to the registered recycling facilities for recovery of materials ;

(*f*) ensure that non-recyclable/non- recoverable components are sent to authorized treatment storage and disposal facilities ;

(*g*) file a return to the Agency as the case may be, on or before 30th June following the financial year to which that return relates ; and

(*h*) not process any EL motor vehicle for recovery or refining of materials, unless he is registered with NESREA as the recycler for refining and recovery of materials.

Responsibilities of Recycler.

7. A recycler shall :

(*a*) obtain registration from the Agency in accordance with the procedures prescribed in Schedule XII,

(*b*) ensure that the facility and recycling processes are in accordance with the standards laid down in the guidelines published by NESREA from time to time ;

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

(*d*) ensure that residue generated thereof is stored in a hazardous waste treatment storage facility for subsequent disposal in an ESM ; and

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

Collection Systems for End-of-Life. Vehicles.

8.—(1) Where producers are involved in the placing of vehicles in the Nigerian market, such producers shall establish :

(*a*) collection system to take back end of life vehicle ; and

(*b*) treatment facility where end-of-life vehicles will be collected, stored and treated.

(2) There shall be at least one treatment facility in the six Geo-political zone of the country.

(3) Producers shall ensure that the treatment facilities are reasonably accessible to any person who wishes to deliver an end-of-life vehicle.

(4) Producers shall ensure that the treatment facilities have sufficient capacity to treat the actual number of vehicles that are likely to become end of-life vehicles.

(*e*) Producers shall ensure that where an end-of-life vehicle is transported from one treatment facility to an alternative treatment facility, the transportation is carried out in accordance with the provisions of these Regulations.

SCHEDULE VII *Regulations* 12(1), (2)(*a*), (3) ; 13(1), (3); 14(1), (2)(*d*) and 42 (*b*).

Effluent Limitations for Motor Vehicle and Miscellaneous Assembly Sector

S/N	*Parameter*	*Unit*	*Guideline value*
1	pH	S.I	6 - 9
2	COD	mg/l	250
3	TSS	mg/l	5025 (electroplating)
4	Oil and grease	mg/l	10
5	Aluminium	mg/l	3.0
6	Arsenic	mg/l	0.1
7	Cadmium	mg/l	0.1
8	Chromium (total)	mg/l	0.1
9	Chromium (hexavalent)	mg/l	0.5
10	Copper	mg/l	0.1
11	Iron	mg/l	3.0
12	Lead	mg/l	0.2
13	Mercury	mg/l	0.01
14	Nickel	mg/l	0.5
15	Silver	mg/l	0.2
16	Tin	mg/l	2.0
17	Zinc	mg/l	2.0
18	Cyanides (total)	mg/l	1.0
19	Cyanides (free)	mg/l	0.2
20	Ammonia	mg/l	10.0 20.0 (electroplating)
21	Flourides	mg/l	20.0
22	Phenols	mg/l	0.5
23	Total Nitrogen	mg/l	15.0
24	Total Phosphorus	mg/l	5.0
25	Sulphides	mg/l	1.0
26	VOCs	mg/l	0.1
27	Toxicity	To be determined on a case specific basis	
28	Temperature increase	°C	<3a*

*a At the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use, potential receptors and assimilative capacity. The effluent should result in a temperature increase of not

more than 3°C at the edge of the zone where initial mixing and dilution takes place. Where the zone is not defined, use 0 -500 meters from the point of discharge.

EFFLUENT LIMITATIONS FOR DISMANTLING, RECYCLING, MAINTENANCE AND SERVICING Facilities

Parameters	*Guideline Value*
Copper, total	0.030 mg/l
Aluminum, total	1.2 mg/l
Iron, total	1.3 mg/l
Lead, total	0.010 mg/l
Zinc, total	0.16 mg/l
TSS	100 mg/l
COD	60 mg/l

EFFLUENT LIMITATIONS FOR FOUNDRIES

Parameter	*Units*	*Guideline values*
pH	_	6-9
Total suspended solids	mg/l	35
Oil and grease	mg/l	10
Temperature increase	°C	3a
COD	mg/l	125
Phenol	mg/l	1
Cadmium	mg/l	0.01
Chromium (total)	mg/l	0.5
Copper	mg/l	0.5
Lead	mg/l	0.2
Nickel	mg/l	0.5
Zinc	mg/l	0.5
Tin	mg/l	2.0
Ammonia	mg/l	(as N) 5
Fluoride	mg/l	(as F) 5
Iron	mg/l	5.0
Aluminum	mg/l	0.02b

NOTE :

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

(*b*) - Aluminum smelting and casting.

than or equal to 10g/ hour, and or halogenated VOC classified with risk phrase R40 and having a mass flow greater than or equal to 100 g/hour); 75 mg/Nm³ for waste gases from other surface cleaning

(2) Facilities with solvent consumption greater than 15 tones/year

(3) Dry air at 11 percent O_2

AIR EMISSION LIMITATIONS FOR FOUNDRIES

Industry-specific pollutants that may be emitted from point or fugitive sources during routine operations consist of numerous organic and inorganic compounds, including sulphur oxides (SO_x), ammonia (NH3), ethylene, propylene, aromatics, alcohols, oxides, acids, chlorine, EDC, VCM, dioxins and furans, formaldehyde, acrylonitrile, hydrogen cyanide, caprolactam, and other volatile organic compounds (VOCs) and semi volatile organic compounds (SVOC).

POLLUTANT	UNITS	GUIDELINE VALUE
Particulate Matter	mg/Nm³	20(2)
Oil Aerosol/ Mist NO_x	mg/Nm³ mg/Nm³	50(3) 5 400(4) 120(5)
SO_x	mg/Nm³	150(6) 400(8) 50(9)
VOC	mg/Nm³	120(7) 20(10) 30
PCDD/F CO	ngTEQ/ Nm³ mg/Nm³	150(11) 0.1 200(12)
		150(13)
Amines	mg/Nm³	5(14)
Chlorine	mg/Nm³	515)
Pb, Cd and their compounds	mg/Nm³	1-2(16)
Ni,Co, Cr Sn and their compounds	mg/Nm³	5
Cu and their compounds	mg/Nm³	5-20(17)
Chloride	mg/Nm³	518)
Fluoride	mg/Nm³	5(19)
H_2S	mg/Nm³	5

NOTES :

1. References conditions for limits. For combustion gases : dry, temperature

SCHEDULE VIII *Regulation* 15 (2)

SLUDGE DISPOSAL PERMISSIBLE LIMIT FOR MOTOR VEHICLE AND MISCELLANEOUS ASSEMBLY SECTOR

DRY SLUDGE (DS) GENERATION FROM WASTEWATER TREATMENT

Parameters	Sludge Production Kg DS/ tonne
Sludge (total)	200
Primary Treatment	
Mixing- sedimentation	80
Mixing-Chemical treatment+ sedimentation	150-200
Mixing chemical treatment+ Flotation	150-200

SCHEDULE IX *Regulations* 16, 17 (1) and 19 (1)

AIR EMISSION LIMITATIONS FOR MOTOR VEHICLE AND MISCELLANEOUS ASSEMBLY SECTOR

S/N	*Pollutant*	*Unit*	*Guideline value*
1.	VOCs - surface cleanin	gmg/Nm³	20-75(1)
2.	VOCs - metal coating	mg/ Nm³	100 (up to 15 ton/y solventconsumption) 75 (more than 15 ton/y solvent consumption)50 (drying processes)
3.	Volatile Halogenated Hydrocarbons - metal surface treatments	mg/ Nm³	20
4.	Particulate Matter metal surface treatments	mg/ Nm³	5
5.	Hydrogen Chloride	mg/ Nm³	10
6.	Nitrogen Oxides(3)	mg/ Nm³	350
7.	Ammoniamg/	Nm³	50

NOTE :

(1) As 30 minute mean for contained sources 20 mg/Nm³ for waste gases from surface cleaning using VOCs classified as carcinogenic, mutagenic or toxic to reproduction (risk phrases R45, R46 R49, R60, R61) with mass flow greater

273K (0°C), pressure 101.3 kPa (1 atmosphere), oxygen content 3% dry for liquid and gaseous fuels, 6% dry for solid fuels. For non-combustion gases: no correction for water vapor or oxygen content, temperature 273K (0°C), pressure 101.3 kPa (1 atmosphere).

2. Particulate matter emissions where toxic metals are present.
3. Particulate matter emissions where toxic metals are not present.
4. Ferrous metal melting. Maximum emissions level considered on BAT base and based on cokeless cupola furnaces.
5. Non-ferrous metal melting (shaft furnaces).
6. From thermal sand reclamation systems/regeneration units.
7. Maximum emissions level considered on BAT base and based on cold blast cupola furnaces.
8. Non-ferrous metal melting (shaft furnaces).
9. Ferrous metal melting (cupola furnaces).
10. Non-ferrous metal melting (shaft furnaces).
11. Ferrous metal melting (EAFs). Cupola furnaces may have higher emission levels (up to 1,000 mg/N3).
12. Non-ferrous metal melting (shaft furnaces).
13. Cold box molding and core making shop.
14. Non-ferrous metal melting (aluminum).
15. Thermal sand reclamation systems and solvent based investment foundry coating, shelling, and setting operation.
16. Higher value applicable to non-ferrous metal foundries from scrap.
17. Higher value applicable to copper and its alloy producing processes.
18. Furnace emissions where chloride flux is used.
19. Furnace emissions where fluoride flux is used.

SCHEDULE X *Regulation* 22 (1)

NOISE STANDARDS

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

[A]

S/N	*Column 1*	*Column 2*	*Column 3*
	Leq dB (A)	Duration (Daily)	Duration (Weekly)
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

TIME IN HOUR	LEQ								
	85	87	89	91	93	95	97	99	1
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 %	470.98 %	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 %	89.15 %	141.29 %	223.94 %	354.91 %	562.50 %	891.50 %	1412.94 %	2239.35
5.00	62.50 %	99.06 %	156.99 %	248.82 %	394.35 %	625.00 %	990.56 %	1569.93 %	2488.17
5.50	68.75 %	108.96 %	172.69 %	273.70 %	433.78 %	687.50 %	1089.61 %	1726.92 %	2736.99
6.00	75.00 %	118.87 %	188.39 %	298.58 %	473.22 %	750.00 %	1188.67 %	1883.91 %	2985.80
6.50	81.25 %	128.77 %	204.09 %	323.46 %	512.65 %	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

Dose = 100 x T/8 x 10(Leq - 85)10 % .....(*i*)

Leq. = 10log10[(Dose/100) x (8/T)] + 85dB(A).....(*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.

(*b*) Noise and induced ground vibration of quarry blast measured at 500m from the blast </= 100dB(C), 8mm/s

SCHEDULE XI

Regulation 31

GUIDELINES FOR PROPER WASTE HANDLING IN MOTOR VEHICLE SERVICING AND MAINTENANCE WORKSHOPS

(1) Periodic checking and cleaning of storm water drains near the workshop to ensure they are free of debris.

(2) Mop the workshop floor rather than hosing.

(3) Avoid hosing driveways or yards.

(4) Keep a spill kit close to where spills are likely to occur and ensure all staff know how to use it.

(5) Keep your premises and equipment clean and well maintained.

(6) Ensure that waste is segregated and contained in receptacles.

(7) Wash vehicles and parts in a designated area secured with bund wall and properly functioning washbay.

(8) Use dedicated parts cleaners to wash small parts.

(9) Treat liquids collected within bunded areas or the wash bay in an oil water separator.

(10) Place a drip tray under vehicles to collect spent oil, solvents or detergents.

(11) Use suitable absorbent, including biodegradable agents, to clean up liquid spills.

(12) Collect and store waste oil in appropriate enclosed containers for recycling.

(13) Ensure that contaminated oil is disposed of by authorized waste managers.

(14) Always drain used filters and collect oil for recycling.

(15) Ensure that wastewater from vehicle wash down is not channeled to storm water drain.

(16) Do not burn oily or/greasy rags and paper, oil soaked sawdust, plastics and rubber. They should be stored for disposal in an Environmentally Sound Manner (ESM).

SCHEDULE XII *Regulations* 33(*b*), 37 (1)(*b*) and (*c*)

REQUIREMENTS FOR ESTABLISHMENT OF EL MOTOR VEHICLE COLLECTION, DISMANTLING AND TREATMENT FACILITY

Information to be included in an application include :

(*a*) the name of the operator of the facility ;

(*b*) the registered office address and telephone number of the operator of the treatment facility where it is a body registered in Nigeria, or if the operator of the treatment facility is not a body registered in Nigeria, his principal place of business in Nigeria ;

(*c*) the names of all the partners where the operator of the treatment facility is in partnership ;

(*d*) where the operator of the treatment facility is not a body registered in Nigeria or a partnership, the name of the person having control or management of that body must be registered in Nigeria ;

(*e*) the address for service of notices if different from that referred to in paragraph 2 above ;

(*f*) in the case of an application made by an operator of more than one dismantling/treatment facility, the name and address of each of the facilities in respect of which it is applying for approval ;

(*g*) confirmation of whether or not the operator of the treatment facility has been convicted of an offence under these Regulations and where a positive confirmation is given, an explanation of how the contravention of these Regulations which resulted in the conviction occurred and what steps have been taken to forestall such a contravention in the future ;

(*h*) certification of destruction by the treatment facility ;

(*i*) approval by state's development control Authority ;

(*j*) environmental Impact Statement or Evaluation Report as the case maybe ;

(*k*) the list of persons and their qualifications working in the facility ; and

(*l*) a copy of any other information that will help the Agency in fast-tracking the approval.

SCHEDULE XIII *Regulation* 35

GUIDELINES FOR PERSONAL PROTECTIVE EQUIPMENT(PPE) FOR MOTOR VEHICLE MAINTENANCE, SERVICING, REPAIRS WORKSHOP AND BODY SHOPS

The recommended PPE to protect workers from occupational hazards, injuries and illnesses include :

(*a*) body protection and protective clothing (overall) ;

(*b*) hand and foot protection (hand glove and boot) ;

(*c*) head and face protection (helmet, eye goggle, ear muffs) ; and

(*d*) respiratory protection (nose mask).

SCHEDULE XIV *Regulation* 38 (4)(*a*)

MINIMUM REQUIREMENTS FOR CERTIFICATE OF DESTRUCTION ISSUED FOR END-OF-LIFE VEHICLES

1. Name, address, signature and waste permit number or as appropriate, waste license number, the establishment issuing the certificate.

2. Name and address of competent authority responsible for the permit, or as appropriate, license, for the establishment issuing the certificate of destruction.

3. Where the certificate of destruction is issued by a producer, dealer or collector on behalf of an authorized treatment facility, the name and address and waste permit number, or as appropriate, waste license number, of the establishment issuing the certificate.

4. Date of issue of the certificate of destruction.

5. Vehicle nationality mark and registration number (attach the registration document or a statement by the establishment issuing the certificate that the registration document has been destroyed).

6. Class of vehicle, brand and model.

7. Vehicle identification number (chassis).

8. Name, address, nationality and signature of the registered owner of the vehicle.

9. Obtain National Automotive number Auto data accessible to NESREA for confirmation.

SCHEDULE XV *Regulations* 44 (3) and (4)

FORM I

MONTHLY DISCHARGE MONITORING REPORT (MDMR)
[NESREA DISCHARGE MONITORING REPORT]

PLEASE COMPLETE AND SUBMIT ONE COPY EACH MONTH.
THIS REPORT MUST BE POSTMARKED NOT LATER THAN THE 28TH OF THE FOLLOWING MONTH

FACILITY NAME AND ADDRESS :

Facility e-mail address :

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

SAMPLING POINT LOCATION: ---------- | | | | |
MONTH YEAR
SAMPLING DATES & TIME: ----------

TYPE OF SAMPLING							
Parameters	*Weekly Results*					*NESREA's Regulatory Limits*	
Physical :	*Units*	*1st*	*2nd*	*3rd*	*4th*	*Average*	
Appearance							
Odour							
Temperature	°C						
pH							
Conductivity	µs/cm						
Turbidity	NTU						
Dissolved Oxygen (DO)	mg/l						
Total Suspended Solids (TSS)	mg/l						
Total Dissolved Solids (TDS)	mg/l						
BOD	mg/l						
COD	mg/l						

INORGANIC:						
Chloride	mg/l					
Nitrate	mg/l					
Sulphate	mg/l					
Sulphite	mg/l					
Cyanide	mg/l					
Nitrites	mg/l					
Chromium (hexa-valent)	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 & Grease	mg/l					
MICRO-BIOLOGICAL:						
Feacal Coliform	mg/l					

NOISE MEASUREMENTS	
LOCATIONS	NOISE LEVELS

		Signature with date of principal executive Officer or authorized agent ;	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.
Signature of Certified Operator	Date (day, Month, year)	Date :	
		Signature :	

© NESREA 2013.

FORM 2

NATIONAL ENVIRONMENTAL STANDARDS AND REGULATIONS ENFORCEMENT AGENCY (NESREA).

NCIDENT REPORT FORM

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

Incident reporting ensures there is a record on file with the employer, in no way does this walve the employee's right to work's compensation benefits. If an injury occurs, first aid may be appropriate treatment.

All accidental discharge/emergencies/accidents should be reported to NESREA within 48 hours.

(1) FACILITY :

Name & Address of Facility:----------

---- ----------

No of Employee:----------

Department where the discharge occurred:----------

Place of the accidental discharge:.....

(2) DISCHARGE :

Cause(s) of discharge ;

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

Was the discharged gaseous, liquid or solid? Please specify.

.....

What was the nature of discharge, sludge, effluent or influent? Please specify.

.....

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

.....

(*a*) if water body, specify type of water; pond, stream, lake, river etc.

.....

(*b*) if land ;

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

.....

(*ii*) 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) ?.....

Annex

REGULATION 42

APPLICATION FOR RELEVANT PERMITS

1.0 PARTICULARS OF APPLICANT

1.1 Name, 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 (landline).....

(*e*) Fax .....

(*f*) Mobile Phone.....

(*g*) E-mail.....

(*h*) Website.....

2.0 Legal Status of Organisation and Nature of Business

2.1. Indicate Legal Status of Organization (Tick relevant option)

(*a*) Sole proprietorship

(*b*) Partnership

(*c*) Public Limited Liability Company

(*d*) Private Limited Company

(*e*) Co-operative Society

(*f*) Other (please specify)

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

2.2. *Nature of Business*

State nature of business and type of products/ services produced or rendered by organization.....

3.0 Type And Nature of Permit Required

(*a*) Spare Parts (Second hand) Import Permit ;

(*b*) Dismantling Centre Permit ;

(*c*) Spent Oil Collection Permit ;

(*d*) Junk yard Permit ;

(*e*) Industrial/Commercial discharge permit ; and

(*f*) Sludge Disposal Permit.

3.1 *State the type of permit required*

3.2 *State whether application is fresh, for renewal or amendment*

3.3. *State whether organization has an existing permit issued by the Agency except 3(a) & (b) above*

3.4. *If answer to 3.3 is yes, state the nature of the permit, the date of issue and license number*

3.5. Does the organization own more than ten (10%) shareholding in another entity that has applied for permit or has been granted license by the Agency?

_____

3.6. *If the answer to 3.5 is yes, state the name of the entity, the nature of business, the nature of the application or permit, the date issued and permits number*

_____

3.7. *Has the Applicant ever been denied a license or has its permit ever been suspended or revoked by the Agency ?*

_____

3.8. If answer to 3.7 is yes, give details of the denial, suspension or revocation

_____

4.0. TECHNICAL CAPACITY AND MANAGERIAL EXPERIENCE

4.1. *Provide detailed statement of Applicant's technical competence and experience with regard to the permit applied for*

_____

_____

_____

_____

4.2. *Provide detailed statement of Applicant's managerial competence and experience with regard to the permit applied for*

_____

_____

_____

_____

4.3. *Describe any technical or financial support from internal and external sources with regard to the permit applied for (if any)*

_____

_____

4.4. *State the name and brief resume of the Agency's accredited consultant(s)/contractor(s) involved in pollution control programmes in your organisation (attach details if possible)*

_____

_____

_____

4.5. *State the number, qualifications and experience of staff involved with pollution control programmes at the facility*

5.0. NATURE OF OPERATIONS IN THE FACILTY

5.1. *Describe plant facilities and production figures (please attach engineering drawings and layout of factory and process line). Applicable to 3c, d, e & f above,*

5.2. *State results of quantitative and qualitative sampling of liquid and gaseous effluents from the facility for at least the past one year (if available)*

5.3. *List all the toxic substances used or manufactured on the site. Except 3a, b, & c*

5.4. *Describe pollution abatement/monitoring facilities on site (including details of year of installation, capacity, etc). Except 3a & b ;*

5.5. *List all chemicals in use at the facility (no trade names). Except 3a, b, c & e*

5.6. *List all intermediates and final products at facility including details of storage conditions(s). Applicable to 3d & f*

5.7. *State the distance and specific location of facility from residential areas, other sensitive ecosystems such as freshwater bodies and vegetation (attach* map), *and other existing industries (include name of such industries). Applicable to 3d, e & f*

5.8. *State effluents characteristics, discharge (outfall) locations, and possible compliance monitoring and inspection points (attach illustration)*

5.9. *Describe in detail the waste disposal methods available at the facility*

5.10. *State any safety/contingency plan(s) operational at the facility (attach details)*

5.11. *Provide any other relevant information that could support and facilitate the processing of your application (attach details if necessary)*

(Attach an Environmental Impact Statement if the application is for a new facility)

6.0. DECLARATION BY THE APPLICANT
(Notary Public/Commissioner of Oaths' Seal and Attestation Required)

I/we hereby declare that the details stated above are, to the best of my/our knowledge, true and correct.

DATED this.....day of.....20.....

THE COMMON SEAL OF THE WITHIN NAMED APPLICANT

_____

Has hereunto been affixed in the presence of :

*Sign*_____ *Sign*_____

Name *Name*

Director-General or/CEO *Secretary*

SWORN to this .....Day of.....20.....at.....

BEFORE ME

.....

Notary Public/Commissioner of Oaths

For Official Use Only

1.0. Date of submission of application_____

2.0. Fees paid and receipt number

(*i*) Fresh Application Processing Fee_____

(*ii*) Fees for Amendment of Permit_____

(*iii*) Fees for Renewal of Permit_____

3.0 Results of verification for competence_____

_____

_____

_____

_____

4.0. Recommendation by In- house Committee _____

_____

_____

5.0. Decision/Approval by the Director-General_____

_____

6.0. Issue Date of Permit_____

7.0. Expiry Date of Permit_____

8.0. Permit Number_____

9.0. Other Relevant information_____

_____

ISSUED at Abuja this 29th day of October, 2013.

ARC. DARIUS DICKSON ISHAKU, fnia,
Honourable Minister of Environment

EXPLANATORY NOTE

(This note does not form part of the above Regulations but is intended to explain its purport).

These Regulations seek to prevent and minimize waste and pollution from all activities of the Motor Vehicle (MV) and Miscellaneous Assembly Sector to the Nigerian environment.

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S.I. No.	*Short Title*	*Page*
36	Weights and Measures Verification Ministerial Approval 2013. ..	B683-685

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WEIGHTS AND MEASURES ACT (CAP. W3 LFN 2004)

WEIGHTS AND MEASURES VERIFICATION MINISTERIAL APPROVAL 2013

ARRANGEMENT OF SECTIONS

Section :

1. Compliance with Section 50 (*i*) (*a*) of Weights and Measures Act Cap. W3 LFN 2004.
2. Citation.

S. I. No. 36 of 2013

WEIGHTS AND MEASURES VERIFICATION MINISTERIAL APPROVAL 2013

[*6th March*, 2013] Commencement.

In exercise of the powers conferred upon me by Sections 47(2) and Section 50 (*i*) (*a*) of the Weights and Measures Act Cap. W3 LFN 2004, and all other powers enabling me in that behalf, I, OLUSEGUN O. AGANGA, CON, Minister of Industry, Trade and Investment hereby grants approval for the verification of Weights, Measures, Weighing and Measuring equipment with respect to :

1.—(*i*) Any dealing with Land ;

(*ii*) The measurement or consumption of Electricity, Gas or Water ;

(*iii*) The hire of any Taxi, in line with the requirements of Section 50 (*i*) (*a*) of the Weights and Measures Act.

Compliance with Section 50 (*i*) (*a*) of Weights and Measures Act Cap. W3 LFN 2004.

2. This approval may be cited as the Weights and Measures Verification Statutory Ministerial Approval 2013. Citation.

DATED this 6th day of March, 2013.

OLUSEGUN O. AGANGA, CON
Honourable Minister of Industry, Trade and Investment

EXPLANATORY NOTE

(*This does not form part of the Order but is intended to explain their purport*)

This Order gives approval to Weights and Measures Department of the Federal Ministry of Industry, Trade and Investment to carry out verification of all Weights, Measures, Weighing and Measuring devices for dealing with Land, Measurement or Consumption of Electricity, Gas and Water and for Hire Taxi in the Federal Republic of Nigeria.