



A CRITICAL REVIEW OF THE LAW OF ENVIRONMENTAL PROTECTION FOR MANUFACTURING INDUSTRIES IN NIGERIA

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ABSTRACT

This article will critically review the nitty gritty of Environmental Protection laws, their provisions, compliance and enforcement thereof, with regard to manufacturing industries in Nigeria. The need to carry out this research was activated by the apparent inertia in environmental protection in Nigeria generally and in the manufacturing industries in particular. Accordingly the work examined critically the legislative and institutional framework with regard to environmental protection for manufacturing industries vis-à-vis the practical realities on ground in the sector in Nigeria. It ended with some pragmatic recommendations for better environmental protection for manufacturing industries in Nigeria.

Keywords: Industry, Environmental Protection, Constitution, Public Health, Subsidiary Legislations, Effluent, Emission, Hazardous Wastes, Pollution Control, Penalties, Recycle.

INTRODUCTION

A large percentage of prevailing environmental challenges confronting the country nay the world stem from industrial or manufacturing factories' processes, mechanisms and products. These include waste products from diverse manufacturing activities; diverse environmental hazards or challenges arising from or inherent in manufacturing processes or mechanisms; and products'; end-of-life wastes and wastes products arising from the consumption of their end products. They manifest and assail the environment in the form of air, water, land and noise pollution; green house effect, global warming and climate change; depletion of the ozone layer, toxic and non-toxic solid wastes e.g. non-biodegradable e-waste, cellophane and other plastic materials, bottles and other glass materials, etc. As industrial activities increase in Nigeria, the challenges from the manufacturing industries increase. Just as the negative environmental effects of industrial activities had progressed geometrically from the onset of the industrial revolution in Europe; it subsequently assumed alarming proportion in the developed world and is today attracting a lot of attention and action over there. To the extreme extent that some of these nations and their companies are moving their industries to other less environmental sensitive zones of Asia, and Africa. The same cannot be said of Nigeria and most developing countries of the world. Instead the primary drive of every government, state and city is to attract industries and investment without any thought as to their environmental consequences and implications. Despite the apparent inertia in environmental protection pervading Nigeria in general and the manufacturing industries in particular; the government and the legislature especially, have not been totally inactive in that regard or have they? This work will therefore critically review the law of environmental protection for manufacturing industries in Nigeria. It is the objective of this paper, at the end of the day, to make the relevant stakeholders in environmental protection in the manufacturing sector especially the industrial facilities to be better informed of what is expected of them for environmental protection in the sector. This is because every individual is a relevant and major stakeholder in the protection of the environment and environmental sustainability as all stands

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to loose heavily if the environment is distorted or destroyed. Accordingly the need for all to know, be involved and comply with these laws and regulations is not only because any none compliance is a punishable criminal offence. It is equally because the manufacturing industries appear to have greater stake in environmental protection and sustainability due to the fact that manufacturing activities and availability of many industrial raw materials will be adversely affected by inimical environmental condition such as flooding, global warming and climate changes, etc.

From a look at the statute book of Nigeria, manufacturing industries in Nigeria are divided into nine broad groups namely food, beverages and tobacco sector; textile, wearing apparel, leather and footwear industry; chemicals, pharmaceutical, soap and detergent manufacturing industries; base metals, iron and steel manufacturing/recycling industries; electrical/electronic sector; domestic and industrial plastic, rubber and foam sector; non-metallic minerals manufacturing industries sector; pulp and paper, wood and wood products sector; and motor vehicles assembly and miscellaneous assembly sector. Furthermore, there are other sectors like the health care sector which is of particular relevance in environmental protection as the waste from it are hazardous and should be treated with great care. Accordingly the legislations dealing with environmental protection in these manufacturing industries which ought to be examined in this paper include the Constitution of the Federal Republic of Nigeria, the Factories Act,¹ the National Environmental Standards and Regulations Enforcement Agency (NESREA) (Establishment) Act;² and nine out of the twenty eight regulations made pursuant thereto.³ These Regulations are National Environmental (Sanitation and Waste Control) Regulations 2009⁴; National Environmental (Food, Beverages and Tobacco Sector) Regulations 2009;⁵ National Environmental (Textile, Wearing Apparel, Leather and Foot Wear Industry) Regulations 2009;⁶ and National Environmental (Chemical, Pharmaceuticals, Soap and Detergents Manufacturing Industries) Regulations 2009.⁷ Others are the National Environmental (Base Metals, Iron and Steel Manufacturing/Recycling Industries Sector) Regulations 2011;⁸ National Environmental (Domestic and Industrial Plastic, Rubber and Foam Sector) Regulations 2011;⁹ National Environmental (Electrical/Electronic Sector) Regulations 2011;¹⁰ National Environmental (Non-Metallic Minerals Manufacturing Industries Sector) Regulations 2011; National Environmental (Pulp and Paper, Wood and Wood Products sector) Regulations 2012; National Environmental Motor Vehicle Assembly and Miscellaneous Assembly) Regulations 2012. However in this work we are going to dwell only on the first seven Regulations. It may be pertinent to point out that all these Regulations are generally made compliant to all the relevant international conventions and instruments on environmental protection, environmental sustainability and sustainable development to which the Nigeria nation is party. Accordingly none compliance to some of these Regulations apart from the environmental menace transcend infraction of national or municipal legislation but is of international dimension; hence the weighty nature of this topic. In view of the above it should be pointed out for the avoidance of any doubt that the oil and gas sector is not included within the purview of this paper. Although oil and gas is vital in the sector, it is generally treated separately and is clearly excluded from the purview of the NESREA Act hence its exclusion in this work.¹¹ We are to also have cursory looks at: the Public

¹ Chapter FI LFN, 2004

² Chapter N164 LFN, 2007, hereinafter referred to as the NESREA Act

³ Section 34, *ibid*; other Regulations that are ancillary to the nine Core Regulations for the manufacturing industries are the National Environmental Regulations on Permitting and Licensing System; Noise Standards and Control; and Ozone Layer Protection all of 2009; see further National Environmental Regulations for Control of Vehicular Emissions from Petrol and Diesel Engines of 2011.

⁴ No. 60 Vol 96 of 6th October, 2009 (S.I. No.28); hereinafter referred to as RegSan

⁵ No. 65 Vol 96 of 14th October, 2009 (S.I. No. 33); hereinafter referred to in this work as RegFood

⁶ No. 66 Vol 96 of 16th October, 2009 (S.I. No. 34); hereinafter referred to as RegTex

⁷ No. 67 Vol 96 of 19th October, 2009 (S.I. No. 36); hereinafter referred to in this work as RegChem

⁸ No. 41 Vol 98 of 4th May, 2011 (S.I. No. 14); hereinafter referred to in this work as RegMetals

⁹ No. 44 Vol 98 of 10th May, 2011 (S.I. No. 17); hereinafter referred to in this work as RegPlastic

¹⁰ No. 50 Vol 98 of 25th May, 2011 (S.I. No. 23); hereinafter referred to in this work as RegElect

¹¹ See K.K. Ezeibe, "The Legislative and Institutional Framework of Environmental Protection in the Oil and Gas Sector in Nigeria – A Review" (2011) 2, *UNIZIK JILJ*) 39 – 76 for a full discussion of the topic; see also Margaret Okorodudu-Fubara, "Country Report Nigeria- Legal Developments 2009 – 2011" *IUCN Academy of Environmental Law Journal* Issue 2012 (1) 176-177; Muhammed Tawfiq Ladan, "Review of NESREA Act 2007 and Regulations 2009-2011: A New Dawn in Environmental Compliance and Enforcement in Nigeria", 8/1 *Law, Environment and Development Journal* (2012) 116-137 at 123-124; also available at <http://www.lead-journal.org/content/12116.pdf>

Health Law with regard to its provisions on industrial environmental protection and; the Harmful Waste (Special Criminal Provisions, etc.) Act¹² as it is of particular relevance to industries especially those producing harmful, especially radioactive waste. Accordingly we are going to sift out environmental protection imperatives for the manufacturing industries in Nigeria from these laws and Regulations and examine them vis-à-vis the practical realities prevailing in the sector with regard to environmental protection. Finally the paper will present recommendations for a better environmental protection in manufacturing industries in Nigeria.

Definition of Terms

Environmental Protection: A working definition of environmental protection has been given as follows; “setting pollution control standards in the area of air, water, solid waste, pesticides, radiation, and toxic materials; enforcing laws enacted to protect the environment; and co-ordinating the anti pollution efforts of state, local government”¹³ and of course the Federal government.

Environmental Law: According to the *Black’s Law Dictionary*, environmental law is the field of law dealing with the maintenance and protection of the environment including preventive measures such as the requirements of environmental impact (assessment) statements, as well as measures to assign liability and provide clean-up for incidents that harm the environment.¹⁴

Imperative: Expressive of command, advice or request; urgently necessary; calling out for action; obligatory; authoritative, peremptory.¹⁵

Imperative Law: A rule in the form of a command; a rule of action imposed on people by some authority that enforces obedience.¹⁶

Industry: Any branch of manufacture or trade, heavy industry relating to industries involving heavy equipment, light industry to smaller factory – processed goods, e.g. knitwear, glass, electronics components, etc. all branches of manufacture and trade collectively.¹⁷

Factory: In the *Chambers Concise Dictionary*, Factory is defined as a place where goods are manufactured.¹⁸ The Factories Act, however gave a very comprehensive and lengthy definition which started that; Factory on the one hand is any premises in which one person is or more persons are, employed, and on the other, it is any premises in which ten or more persons are employed – in any process for or incidental to any of the following purposes, namely

- (a) the making of any article or part of any article;
- (b) the altering, repairing, ornamenting, finishing, cleaning or washing or the breaking up or demolition of any article; or
- (c) the adapting for sale of any article; etc.¹⁹

Accordingly and from the foregoing definition, factory is subsumed in industry thus it should be seen as such in this treatise. Secondly from the foregoing definitions it could be deduced that the phrases “imperatives of environmental protection and “environmental law” connotes the same concept. Therefore this work will examine and expound the expectation or demand on the manufacturing industries for environmental protection by law.

PRIMARY AND SUBSIDIARY LEGISLATIONS ON ENVIRONMENTAL PROTECTION FOR THE MANUFACTURING INDUSTRIES IN NIGERIA

The primary legislations on environmental protection for manufacturing industries in Nigeria include the Constitution of the Federal Republic of Nigeria, 1999;²⁰ the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act;²¹ the Factories Act²² and the Public

¹² Chapter HI LFN, 2004

¹³ K.K. Ezeibe “The Legislative and Institutional Framework of Environmental Protection in the Oil and Gas Sector in Nigeria – A Review”, (2011) 2, *UNIZIK J.L.L.J* 42

¹⁴ Bryan A. Garner, et al., *Black’s Law Dictionary* (9th Ed, St. Paul, M.N, Thomson Reuters, West Publishing Co., 2009) 614

¹⁵ Catherine Schwarz, et al., *Chambers Concise Dictionary* (Edinburgh, Chambers Harrap Publishers Ltd, 1997) 518

¹⁶ Bryan A Garner, et al, *Black’s Law Dictionary* (9th Ed, St. Paul, MN, Thomson Rueters, West Publishing Co., 2009) 963

¹⁷ Catherine Schwarz, et al, *op.cit*; 529, see also Bryan A Garner, et al, *op.cit*, 845

¹⁸ Catherine Schwarz, etc, *op.cit*, 370

¹⁹ Section 87 Factories Act CAP FIFN, 2004

²⁰ As amended, also cited as Chapter C23 LFN, 2004

²¹ Chapter N164 LFN, 2007

²² Chapter FI LFN, 2004

Health Law.²³ The subsidiary legislations to be discussed in this treatise as aforementioned are seven Regulations made pursuant to the NESREA Act already listed in the introductory part of this work, and the Public Health Rules made pursuant to the Public Health Law and annexed thereto. This work will first of all examine the primary legislations before going into the subsidiary legislations where minute details of the imperatives of environmental protection in the manufacturing industries are provided and laid down.

THE NIGERIAN CONSTITUTION

The Constitution is the basic law, the supreme law of the Nation, upon it every other legislation is based. Any legislation enacted by any legislative authority in the land, be it federal, state or local government, that is inconsistent with any provision of the constitution shall be null and void to the extent of that inconsistency and the provisions of the Constitution shall prevail.²⁴

The Constitution could be rightly regarded as a primary environmental protection law. This is because it provides for environmental protection and sustainability in some of its sections. These provisions which are very relevant to environmental protection in manufacturing industries are three in all. However two of these provisions could be found in the non-justiciable Fundamental Objectives and Directive Principles of State policy of Chapter 11 of the Constitution.²⁵ They provide as follows:

(i) Section 17 (3)²⁶ The State shall direct its policy towards ensuring that (c) the health, safety and welfare of all persons in employment are safeguarded and not endangered or abused.

Under this provision which is of an intrinsic import in the sector, every agency of the state at all levels of government are expected to direct its policy towards ensuring that the health, safety and welfare of all persons in employment are safeguarded and not endangered or abused. Accordingly attaining this provision involves satisfactory environmental protection regime in the manufacturing industries. It also involves ensuring the health, safety and welfare of workers in these industries. Thus occupational health and safety concerns could be circumscribed under this provision. Occupational health and safety is very paramount to environmental protection not only because man is a constituent part of the environment but because man drives environmental protection and pollution control generally and in the manufacturing industry in particular. Thus his health and safety in the manufacturing milieu is germane not just to environmental protection but even to the output of the industry.

(ii) Section 20²⁷ – The State shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria. This provision is of similar but of a more extrinsic implication than the first provision as it extends beyond the employment or work arena. Thus the import as aforesaid is equally of an extrinsic import to the industries as it directs that every agency of the state should protect and improve the environment, which definitely includes environmental protection in the manufacturing industries and its peripheral or connecting environment. Thus every law enforcement agent of the state (federal, state and local government) can enforce environmental protection and proceed against any industry that abused the environment or failed to operate as to protect the environment.

(iii) The third constitutional provision on environmental protection could be found at the Fourth Schedule to the Constitution.²⁸ Therein it provides that one of the main functions of the local government council shall be the provision and maintenance of public conveniences, sewage and refuse disposal.

Under the head and function of provision and maintenance of refuse disposal, a vital aspect of environmental protection, the local government council can indeed do a lot in environmental

²³ Laws of Anambra State of Nigeria, 2007; every State of Nigeria has its own Public Health Law and they have similar contents being of the same colonial origin. However the Anambra State law was reviewed extensively in 2006. Furthermore some states also have Environmental Health or Sanitation Law, eg Lagos State of Nigeria. One primary legislation, the Harmful Wastes (Criminal Provisions, etc) Act, CAPH1 LFN, 2004, due to the nature of its content will be discussed with the subsidiary legislation in this work

²⁴ Section 1(3), CFRN, 1999 (as amended)

²⁵ *ibid*

²⁶ *ibid*

²⁷ *ibid*

²⁸ Item 1(b) Fourth Schedule; *ibid*

protection in the manufacturing sector. They can even make bye laws and regulations in pursuance thereof. This is because the terms “Refuse” and “Refuse Disposal” entails a lot, inclusive of recycling and refuse disposal generally in the manufacturing industries and it has been assigned to the third tier as their responsibility by the Constitution. All the foregoing three constitutional provisions although not in the form of particular imperative prescriptions, are nevertheless clear indications that the Constitution of the Federal Republic of Nigeria urges environmental protection in particular and environmental protection in the manufacturing industries in general and by necessary implication. Furthermore the none inclusion of the environment in both the Exclusive and Concurrent Legislative lists of the Constitution, leaves it in the so-called Residual list. Accordingly both the Federal government and the States can equally legislate on environmental matters generally and as it pertains to manufacturing industries in particular.

(iv) Another piece of legislation in this wise which also is in the realm of basic law is the dictates of International law and Conventions which has classified the right to a healthy (and unpolluted) environment as a third generation human rights.²⁹ This is because there cannot be a healthy and unpolluted environment without a healthy and unpolluted manufacturing sector’s environment. Furthermore absence of environmental control in the manufacturing sector will greatly impact negatively on the general environment. Accordingly the courts have gone a step further to hold that environmental pollution by industries amounts to a violation of right to life. Hence in *India Council of Environ-Legal Action v. Union of India*,³⁰ the India Supreme Court reasoned that “when certain industries by the discharge of acid produced by their plants, caused environmental pollution, that amounted to violation of right to life enshrined in Article 21 of the India Constitution... The respondents are absolutely liable to compensate for harm caused to villagers in the affected areas; including harm to soil and underground water.” Thus in India, every industry is duty bound to protect the environment or face the wrath of the court and the law.

(2) The Factories Act

The Factories Act³¹ made various provisions on environmental protection. Apart from detailed provisions on safety and hygiene, the Factories Act provides for environmental protection, through strict environmental sanitation and hygiene in particular, under its Part II which is titled “Health-General Provisions”³²

Worthy of mention are (1) Section 7³³ which makes comprehensive provisions on the cleanliness of the factory and every aspect of the factory at that.

Section 21³⁴ provides for the mandatory protection of vessels, structure; sump or pit containing dangerous liquids so as to ensure ‘safe environment’ at the work place.

Section 28³⁵ provides for safe means of access and safe place of employment; and makes it mandatory that before the construction of any factory, the building plans and such other documents as the Director of Factories may require, shall be submitted to him for approval not less than six months before the commencement of such construction. Section 45³⁶ provides *inter alia* for the removal of dust or fumes or other impurity so as to protect the persons employed against their inhalation and to prevent their accumulation in any workroom. Thus ensuring or promoting the health, safety and welfare of all persons in employment in line with the aforementioned constitutional provision. Section 53³⁷ mandates the occupier to notify the nearest inspector in writing and in the prescribed form and with prescribed particulars, of the occurrence of any occupational disease. The list of occupational diseases are contained in one of the subsidiary legislations to the Factories Act; namely a “Declaration of Industrial Diseases Notice” annexed to it.

²⁹ Comfort Chinyere Ani “The Rudiments of Human Rights”, (2010) 1 *Unizik J.I.L.J*) 88 at 117-121

³⁰ (1996) All India Reports (AIR) SC 1446

³¹ CAP FI LFN, 2004

³² See in particular Sections 7-13, 40-53, *ibid*. These Sections *inter se* made provisions for cleanliness, overcrowding, ventilation, lighting, drainage of factory floors; sanitary conveniences - affording separate accommodation for both sexes; supply of drinking waster, washing facilities, cloakroom, removal of dust, protective clothing, appliances and gadgets, etc.

³³ *Ibid*

³⁴ *Ibid*

³⁵ *Ibid*

³⁶ *Ibid*

³⁷ *Ibid*

This law is enforced by the Director of Factories and inspectors of factories and other officers appointed by the Minister and Ministry of Labour and Productivity. It is not readily clear how they liaise with other stakeholders in the sector but a cursory appraisal of most factories in Nigeria show that most of them are not aware of their involvement in this area of environmental protection thus they are not very visible in the performance of their duties in this regard. However from the provisions of the Act it is clear that non-compliance to the provisions of the Act are criminal offences and are punishable under the Act.

(3) The Public Health Law and Public Health Rules

This law of the state have certain provisions that are relevant to environmental protection in manufacturing industries first of all section 11³⁸ grants the environmental health officer *inter alia* right of entry to any premises (manufacturing industries inclusive) at any time between the hours of six in the morning and six in the evening for the purpose of examining as to existence thereon of any nuisance, etc. Secondly any environmental hazards from any manufacturing industry could be addressed as nuisances to be abated summarily by the environmental health officer given the many definitions of nuisances in Section 7 of the Public Health Law into which they may fall; and in particular Section 7(i) which defines nuisances as any act, omission, place or thing which is or may be dangerous to life or injurious to health or property.³⁹ Accordingly the environmental health officer can lead evidence in court to prove that any environmental abuse of any type by any industry is dangerous to life or injurious to health or property without anything more to ground conviction, remedy the abuse and punish the offender, that is where the first line of abatement through the law by the environmental health officer failed.⁴⁰

Furthermore the part of the Public Health Rules, the subsidiary legislation annexed to the Public Health law, dealing on sanitation, etc⁴¹ is another instrument for environmental protection and control in the manufacturing industries. Worthy of note is Rule 51 which provides as follows: “The Director of Environmental Health Services shall inspect all factories, workshops and breweries, and all places of public instruction, recreation or assembly, as he may deem necessary for the purpose of their regulation and sanitary maintenance; and he shall ascertain that –

- (a) all doors open outwards;
- (b) the drainage is effective and adequate
- (c) the minimum free air space per head is 8.6 cubic metres but the council shall have power in any case, to raise this minimum on the recommendation of the Director of Environmental Health Services;
- (d) there is sufficiency of sanitary conveniences of approved type, with separate accommodation for females.
- (e) the water supply is wholesome and sufficient
- (f) the ventilation is adequate;
- (g) the disposal of waste products is satisfactory”

Accordingly the environmental health officer could under the foregoing provisions of the public health law and Rules intervene to promote public health and hygiene; and enforce environmental protection in the manufacturing sector in Nigeria generally.

The big question however is where are the further detailed standards and express imperatives to guide the industries and such intervention and enforcement? This questions is answered satisfactorily by the NESREA Act and the Regulations made pursuant thereto which we are going to examine hereunder.

(4) National Environmental Standards and Regulations Enforcement Agency (Establishment) Act⁴²

The primary objective and function of National Environmental Standards and Regulations Enforcement Agency (NESREA) is the enforcement of all laws, guidelines, policies and standards on

³⁸ Public Health Law, Anambra State of Nigeria Law No. 3, 2007

³⁹ *Ibid*

⁴⁰ Section 15; *ibid*, empowers the environmental health officer to conduct such prosecution; S. 25; *ibid* confers on them the powers of a police officer by virtue of their appointment as EHO

⁴¹ Rules 41 – 62, Public Health Rules, *ibid*

⁴² Chapter N164 LFN, 2007

environmental matters in Nigeria.⁴³ NESREA⁴⁴ was established by the NESREA Act in 2007.⁴⁵ Apart from the contents of the NESREA Act itself which pertain or could be extended to environmental protection in the manufacturing Sector,⁴⁶ the Minister of Environment had under powers granted him under the Act⁴⁷ made particular aforementioned Regulations with regard to environmental protection in the manufacturing industries. These Regulations which are of particular and extensive importance to the manufacturing industries and shall be examined in this work are the National Environmental Regulations on Sanitation and Waste Control; Food, Beverages and Tobacco Sector; Textile, Wearing Apparel, Leather and Footwear industry; Chemicals, Pharmaceuticals, Soap and Detergents manufacturing industries; Base Metals, Iron and Steel Manufacturing/Recycling Industries Sector; Domestic and Industrial Plastic, Rubber and Foam Sector; and Electrical /Electronic Sector.

Accordingly manufacturing sector or manufacturing industries as used in this treatise should be understood to mean industries in the food, beverages and tobacco sector; textile, wearing apparel, leather and footwear industry; Electrical/Electronic sector; chemicals, pharmaceuticals, soap and detergent manufacturing industries; base metals, iron and steel manufacturing/recycling industries sector; and domestic and industrial plastic, rubber and foam sector specifically. However it should be noted that the imperatives for environmental protection and pollution control for industries not circumscribed within these aforementioned sectors are not far fetched from these ones discussed herein. The differences would pertain to peculiarities of particular industries as the imperatives are generally same or similar.

IMPERATIVES OF THE NATIONAL ENVIRONMENTAL REGULATIONS FOR MANUFACTURING INDUSTRIES

1. Mandatory Documentations, Notifications and Reports

By virtue of the provisions of the National Environmental Regulations made pursuant to the NESREA Act,⁴⁸ they are documentations, notifications and reports that are made mandatory for manufacturing industries. Whereas the documentations are to be generated and kept by the industries for environmental monitoring and protection; they are to generate the reports and submit to the Agency for the same purpose. These documentations and reports which are for environmental monitoring, control and protection are generally observed in the breach by the industries. These include the following:

- (1) Environmental Impact Statement (EIS) of new industries and modifications and major developmental projects or expansion of existing facilities: This should be prepared and submitted to the Agency before commencement of the activities or operations.⁴⁹ EIS, it should be noted is prepared from or is the result of Environmental Impact Assessment (EIA); which is the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of developmental proposals prior to major decisions being taken and commitments made.⁵⁰

⁴³ Section 7(a) *ibid*

⁴⁴ hereinafter maybe referred to as “the Agency”

⁴⁵ Section 1, NESREA Act.

⁴⁶ Sections 20, 21, 22, 23, 24, 25, 26, 27 and 28, *ibid*; see K.K. Ezeibe, The Pitfalls of the NESREA Act, 2007 as an Instrument of Environmental Protection in Nigeria”. (2010 *AJBPL* Vol. 2 No 5) 89 – 108, for a detailed analysis of that law

⁴⁷ Section 34, *ibid*; see also Sections 8(K), *ibid*.

⁴⁸ Here we are treating in particular only those made for these manufacturing industries namely Food, Beverages and Tobacco Sector; Textile, Wearing Apparel, Leather and Footwear Industries; Chemicals, Pharmaceuticals Soap and Detergent Manufacturing Industries; Base Metals, Iron and Steel Manufacturing/Recycling Industries Sector; Domestic and Industrial Plastic, Rubber and Foam Sector; and Electrical/Electronic Sector

⁴⁹ Reg 2(1)(a) RegFood; Reg 2(1)(a) RegChem; Reg 2(1)(a) RegTex; See also Reg 3 (1)(a) RegPlastic; Reg 4(1)(a) RegElect; Reg 3(1)(a) RegMetals.

⁵⁰ “Principle of Environmental Impact Assessment best Practice” – Environmental Impact Assessment in some jurisdiction- Wikipedia, the free Encyclopedia, 1 of 17, assessed 24th January 2013; in Nigeria the Environmental Impact Assessment Act CAP E12, LFN 2004 Controls and directs the process of EIA and the preparation of EIS, see also K.K. Ezeibe and M.N. Umenweke, “A Critical Review of the Law of Environmental Impact Assessment, It’s Utility and Enforcement in Nigeria” (August 2014 *AAJSH* Vol 1, Issue 26) 277-299

- (2) Environmental Audit of every facility: This shall be carried out every three (3) years by all existing industries and the Report (EAR) submitted to the Agency.⁵¹ It might be pertinent and for the avoidance of doubt to point out that environmental audit is an independent verification of current status of a party's compliance with applicable legislative requirements and an independent evaluation of a party's environmental compliance, policies, practices and control.⁵²
- (3) Environmental Management Plan (EMP): This is as contained in the Schedule to each of the Regulations and shall be prepared, kept and implemented by every manufacturing industry.⁵³ An EMP describes the process that the organization will follow to maximize its compliance and minimize harm to the environment. It also helps an organization map its progress toward achieving continual improvements in environmental compliance and objectives.
- (4) Every manufacturing industries shall have a documented Emergency Response plan of which all employees must be conversant with to combat pollution hazards in the event of accidents such as accidental discharges as specified in Schedules to each of the Regulations.⁵⁴
- (5) All manufacturers and importers shall prepare and submit a proposal for a consumer products stewardship (including Buy Back) program to the Agency for approval. Such post-consumer products for the program shall include but not limited to bottles, cans teflon/polyethylene packaging,⁵⁵ and end-of-life waste of plastic materials, used tyres, E-waste, newsprint and papers, batteries, metals, glass, refrigerators, etc.⁵⁶ For emphasis Consumer Products Stewardship and Buy Back Programme is very necessary for E-Waste or Waste Electrical and Electronic Equipment (WEEE) because of these WEEE contains hazardous substances (heavy metals e.g. lead, mercury, cadmium and organics e.g. polychlorinated biphenyls and brominated flame retardants) that can have adverse consequences on the environment and human health, especially when they end up as discarded wastes and or are improperly managed using crude methods such as dumping on refuse sites or open burning to recover copper metal and also reduce the waste volume. However in Nigeria generally, regard is not had to this particular vital prescription of the law. WEEE are generally dumped with other wastes; right from the household dustbin to temporary or transit dump or collecting sites, to the final refuse dump sites. The prescription for Buy Back or Consumer Products Stewardship programme is generally not in place or practiced anywhere in the country as of today.
- (6) All manufacturers shall submit on or before June 30 in each year to the Agency, an annual report on their consumer products stewardship (including Buy Back) program during the previous fiscal year.⁵⁷

⁵¹ Reg 2(1)(b) RegRTex; Reg 2(1)(b) RegChem; Reg 2(1)(b) RegFood; Reg 3(1)(b) RegMetals; See also Reg 4(1)(b) RegElect; and Reg 3(1)(b) RegPlastic

⁵² Reg. 54, RegFood

⁵³ Reg 2(1)(c) & Schedule IX & RegFood; see also Reg 2(1) (d) & Schedule XIV RegTex and Reg 2(1)(d) & Schedule IX Reg Chem; See further Reg 4(1)(e) & Schedule III RegElect; Reg 3(1)(c) & Schedule XI RegMetals, and Reg 3(1)(c) & Schedule X RegPlastic

⁵⁴ Reg 3(2),(3) & Schedule VIII RegFood; see also Reg 3(2)(3) & Schedule X, RegTex and Reg3(2)(3) & Schedule VIII, RegChem; Reg 5(2) & (3) & Schedule IV RegElect; Reg 4(2) – (4) & Schedule 4 RegMetals; Reg 4(2)& (3) & Schedule IX RegPlastic

⁵⁵ Reg 8 and Schedule X, RegFood; see also Reg 9 and Schedule X, RegChem; Reg 11 & Schedule XIII RegPlastic; Reg 12 & Schedule XII RegPlastic ; Reg 11(I) & Schedule VIII RegElect

⁵⁶Reg 32, Schedules VIII and IX, RegSan, see also R.16 RegSan.

⁵⁷ Item c(i)-(x) in Schedule X RegChem; Item c(i) in Schedule XIII RegPlastic; Item e(i)-(x) in Schedule XII RegMetals ; Ite 2(a)-(h) Schedule VIII RegElect; Item d(i) –(x) in Schedule X, *ibid* for details of the contents of the Consumer Products Stewardship (Buy Back) Program Annual Report. This could equally be regard as Extended Producers Responsibility Programme (EPRP) – See R.16, R.32 and Schedule IX, RegSan. It should be noted that due to their nature, that the Textile, Wearing Apparel, Leather and Footwear Industries are excluded from the programme. However in this era of plastic footwear it is not certain whether they are rightly excluded.

- (7) Every manufacturer shall submit to the Agency the following information:
 - (a) a list of the chemicals used in the manufacture of its products, including their Material Safety Data Sheet (MSDS);
 - (b) details of stored chemicals and storage conditions;
 - (c) a list of obsolete or abandoned chemicals and the proposed plan for their environmentally sound management;⁵⁸
 - (d) where chemicals are bought, sold or obtained, the name of the secondary buyer;⁵⁹
- (8) Incidence Report: This report shall be completed and submitted to the Agency by every manufacturer whenever accidental discharge, occupational illness or incident/accident e.g. physical injury occurs. It should be completed by either the affected employee or the supervisor.⁶⁰
- (9) Monthly Effluent Data Sheet (MEDS): This Report shall be completed and submitted to the Agency by every manufacturer monthly or at least quarterly or on dates specified by the Agency and should contain a description of the nature, concentration and flow of the pollutants and other parameters and information contained in the format of Form I in Schedule XIII.⁶¹ For the avoidance of any doubt, MEDS does not report only on effluent discharges which circumscribes physical, inorganic, organic and microbiological parameters, but it also covers noise measurements and control.
- (10) Industrial or Commercial Effluent or Emission Discharge Monitoring Report.⁶² Apart from parameters on MEDS, this report also contain parameters for emission control and monitoring in manufacturing industries and it should be submitted periodically by every industrial facility.
- (11) Documentation before discharging or proposal to discharge effluent to a general sewer or treatment plant: Such manufacturer permit holder 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 any other records necessary to demonstrate compliance with these Regulations.⁶³

However it should be noted that there is no central or general sewer or treatment plant any where in Nigeria save in some estates in the FCT, Abuja. Secondly manufacturing industries generally does not keep any of these records in their establishment. Thirdly the Agency or other relevant regulatory agencies hardly visit these manufacturers to enforce these regulations. However it is advisable for the manufacturing industries to keep these records as they are part of their contribution to environmental protection.

- (12) Report of Emission Sources and Data: Every manufacturer shall quantify and report sources and emissions data and also undertake emission reduction and implementation plan which shall be reviewed every three years by the Agency.⁶⁴

⁵⁸ Reg 9 (1)(a)(b) & (c), RegFood; Reg10(1)(a), (b) & (d), RegChem; Reg 9 (1)(a), (b) & (d) RegTex; See also Reg 12(1)(a)-(c) RegPlastic; Reg 13(1)(a)-(d) RegMetals

⁵⁹ Reg 9(1)(c) RegTex, see Reg10(1)(c) RegChem

⁶⁰ Reg 35(1) and Schedule XIII RegFood; see Form 2 therein for the format of the incident Report Form. See also Reg 36 (1) and Schedule XIII, RegTex and Reg 37(1) and Schedule XIV, RegChem, Reg 40(1) & Schedule XVII (Form 2), RegMetals; Reg 52 (1) & Schedule XV (Form 2) RegElect; Reg 40(1) & Schedule XVI (Form 2) RegPlastic

⁶¹ Reg 35(1)-(3) & Schedule XIII RegFood; see also Reg 36(1)-(3) & Schedule XIII, RegTex and Reg37(1)-(3) and Schedule XIV, RegChem; see also Reg 40 (1)(2)(3) & Schedule XVI (Form 1) RegPlastic; Reg 52(1)(2)(3) & Schedule XV RegElect; Reg 40(1)-(3) & Schedule XVII (Form I) RegMetals

⁶² Reg 37(4) RegChem; Reg 35(4) RegFood, Reg36(4) RegTex; see also Reg 52 (4) RegElect; Reg40(4) RegPlastic and Reg 40(4) RegMetals

⁶³ Reg 35(6) RegFood; Reg 37(9) RegChem; Reg 36(6) RegTex ; see also Reg 40(6)(a)-(f) RegMetals; Reg 40(b)(i)-(vii) RegPlastic, Reg 52(6)(a)-(g) RegElect

⁶⁴ R.20(2) RegChem, R.19(2) RegTex; R.19(2) RegFood; see also Reg 20(1) & (2) RegElect; Reg 22(1) & (2) RegPlastic; Reg 22(1) & (2) RegMetals

- (13) Notification of Hazardous Waste: All generators of hazardous waste for land filling must notify the Agency, even where such waste are treated. And such land filling is permitted according to Guidelines approved by the Agency and the Land Disposal Requirements.⁶⁵ However what obtains in Nigeria generally is fly-tipping thus sanitary land fill is not practiced anywhere in Nigeria.
- (14) Finally the manufacturer permit holder shall be required to file reports with the Agency if the manufacturer permit holder:
 - (a) in any month 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 discharges that could cause problems to the environment including any sludge loadings.⁶⁶

However it is a wonder how an establishment that failed to render routine mandatory reports would render these default reports without any compulsion or coercion. For the avoidance of doubt, it should be noted that these reports, both mandatory/routine and default reports could be submitted to the Agency office nearest to the manufacturing industries, whether head, zonal or field office.

As could be seen from the contents of all the documentations and reports detailed above, every aspect of environmental protection in the manufacturing industries are covered. Accordingly satisfactory compliance by operators in these sectors and enforcement of the Laws and Regulations by the Agency and other relevant stakeholders would enthrone environmental protection and sustainability in the sector and in the Nation as a whole. However any failure to comply with the keeping of these records and documentations and submission of these reports is a serious criminal offence for both the individual and any concerned corporate body or industry. For emphasis however, we ought to state categorically that compliance to these mandatory documentations, notifications and reports (No 1 – 14 above) are generally, without any exception, observed in the breach by manufacturing industries in Nigeria.

2. Registration, Permits and Licences

There are certain process and activities in the manufacturing industries that mandatorily require registration, permit or licences from the Agency so as to ensure control and protection of the environment. The general procedure for the registration and issuance of permits and licenses (with other attendant issues like renewal, amendment, suspension and cancellation or revocation) by the Agency are defined in the National Environmental (Permitting and Licensing System) Regulations.⁶⁷ However, the respective Regulations for the manufacturing industries prescribes particular processes that require registration, permit or licenses from the Agency for specific manufacturing industry process. These processes as provided in these specific Regulations are going to be discussed under this subhead and they include the following.

- (1) Registration By Certain Manufacturers and Importers – All manufacturers and importers of certain brands of products listed hereunder shall register with the Agency. The products are plastic materials, used tyres, E-waste i.e. all types of electronic wastes, newsprint and papers, batteries, metals, cans or tins, glass (including bottles), refrigerators and asbestos waste.⁶⁸ In addition and as aforesaid they shall undertake buy back of their recyclable containers for recycling and embark on individual or collective consumer Products Stewardship Programme (PSP) so as to be able to manage and take care of all the end-of-life waste emanating from their products.⁶⁹ The PSP as aforesaid must be submitted to the Agency for approval.

⁶⁵ R.17(6) & (7) RegChem; R.16(5) RegTex

⁶⁶ Reg 35(7) RegFood; Reg 37(10) RegChem; Reg 36(7) RegTex; See also Reg 40(7) RegPlastic; Reg 40(7) RegMetals Reg 52(7) RegElect

⁶⁷ No 61 Vol 96 of 7th October, 2009

⁶⁸ R.32(a) and Schedule 8, RegSan; Regs 3 (3), 4 3(3) RegElect see Schedule 1 RegElect for a comprehensive list of EEE; EEE means Electrical Electronic Equipment.

⁶⁹ R.32(b) & (c) and Schedule 9, RegSan; see also Reg 9 RegChem; Reg 8 RegFood. “End-of-Life Waste” means a post-consumer waste of products, appliances, equipment, machinery that may have physical integrity but have lost its utility value (e.g. tyre, vehicle, television, cooker, refrigerator, mobile phones etc) which the owner has discarded, intends to discard or is required to be discarded.

- (2) Effluent Discharge Permit – No manufacturer (or other facility at that) shall discharge effluent, or oil in any form into the water system, public drains, or underground injection or land, or natural environment without a permit from the Agency.⁷⁰ In addition no effluent so discharged under such permit shall exceed the permissible limits or levels as contained in the Effluent limitation standards for the particular industry.⁷¹
- (3) Use of Restricted Chemicals – any use of a restricted chemical by any manufacturer shall be with a permit issued by the Agency.⁷² That is to say no use of any of the restricted chemicals is allowed without a permit from the Agency. The list of banned and restricted chemicals is provided in the Schedules to each of the Regulations for particular industries or manufacturing sector.⁷³
- (4) Chemicals Requiring Separate Permit – Apart from the general permit necessary for the use of restricted chemicals discussed above, there are some chemicals use of which require separate or particular permit from the Agency. These chemicals and activities are; use of chlorine gas-based chemical in production process;⁷⁴ use of alkyl phenol ethoxylates or discharge of effluent containing alkyl phenol ethoxylates into the environment;⁷⁵ and release of persistent organic pollutants (POPs) into the ambient air.⁷⁶
- (5) Atmospheric Emission Licence – No manufacturing facility or factory shall engage in activities requiring atmospheric emission license without a permit from the Agency.⁷⁷ The activities requiring atmospheric emission license are:
 - (i) use of solvents in activities such as printing processes, painting, fabric cleaning, wool scouring, coating and dyeing operations, etc.
 - (ii) processes making use of ammonia, formaldehyde, methanols and other alcohols, esters, aliphatic hydrocarbons and other monomers.
 - (iii) The use of perchloroethylene; e.g. in dry cleaning machines
 - (iv) Any other activity whose process may result in atmospheric emission.⁷⁸

Accordingly any manufacturing facility engaging in any of the aforementioned activities or any activity that the process may result in atmospheric emission must apply to and obtain an atmospheric emission licence from the Agency.

- (6) Sludge Disposal Licence – No manufacturing facility shall discharge sludge into any water body or any part of the environment without a sludge disposal licence from the Agency.⁷⁹ Furthermore no component of such sludge disposed under any license issued by the Agency shall exceed the permissible limit for the industry⁸⁰ and any sludge containing hazardous substances shall be treated as hazardous sludge and will be disposed in a secure landfill.⁸¹

⁷⁰ R.35(1) RegSan; see also R.11(2)(a) RegFood; R.11(2)(a) RegTex & R.12(2)(a) RegChem Reg 12(2)(2)(a) RegElect, Reg 14(2)(a) RegPLastic, Reg 15(1)(a) RegMetals, C/F S.245, Criminal Code CAP C38 LFN, 2004 with regard to the offence of fouling water; R.36 RegSan

⁷¹ See .35(2), Schedules X & XI RegSan; See also Schedules I of RegChem, RegFood and RegTex respectively. See also Regs40 & 41, RegSan; Reg 16 & Schedule X RegElect; Reg 18 7 Schedule I RegMetals; Reg 18 & Schedule I & IV RegPlastic

⁷² See R.10 RegFood; See also R.10 RegTex; R.11 RegChem; Reg 13 RegPlastic; Reg 16 RegElect and Reg 18 RegMetals

⁷³ See Schedule VII RegFood; Schedule VII RegChem and Schedule IX RegTex; see also Schedules I, VIII & RegMetals, RegPlastic & RegElect respectively. See Section 248 Criminal Code Cap C38 LFN, 2004, which prohibits and made an offence the sale of matches made with white phosphorous and the use of white phosphorous in the manufacture of matches. White phosphorous is however not listed in the Banned or in the Restricted Chemicals

⁷⁴ R.11 (2)(b) RegTex, See also R.12(2) (b) RegChem & Reg 15 (1)(b) RegMetals

⁷⁵ R.11 (2)(c) RegTex; See also R.12 (2)(c) RegChem.

⁷⁶ R.11(2) (e) RegTex, See also R.12 (2)(e) RegChem and Reg 15(1)(d) RegMetals

⁷⁷ R.12(2)(f), R.23(1) RegChem; See also R.22 (1) RegTex and Reg 15 (1)(e) RegMetals. C/F Section 247 Criminal Code CAP C38 LFN, 2004, which made an offence any noxious act that vitiates the atmosphere or spread any disease dangerous to life of human or animal

⁷⁸ Schedule XI RegChem, Schedule IV RegTex, Schedule XIV RegMetals

⁷⁹ R.18(1) RegFood; see also R.18(1) RegTex, R.19(1) RegChem; R. 20(1) RegMetals; R.18(1) & (2) RegElect and R.20(1) RegPlastic

⁸⁰ Schedule II RegFood, Schedule II RegTex, Schedule II RegChem, see also R.20(2) & Schedule II RegMetals; R.18(3) & Schedule X RegElect and R.20(2) & Schedule XIV RegPlastic

⁸¹ Reg18(3) & (4) RegFood, Reg18(3) & (4) RegTex and Reg 19(3) & (4) RegChem, see also Reg 20(3) 7(4) RegPlastic; Reg 18(4) & RegElect and R. 20 (3) & (4) RegMetals

- (7) Generation and Transportation of Hazardous Waste – By definition hazardous wastes means solid, liquid, or gas wastes that can cause death, illness, or injury to people or destruction of the environment if improperly treated, stored, transported, or discarded. Substances are considered hazardous wastes if they are ignitable, corrosive, reactive, or toxic and poses a substantial danger now or in the future to human, plant or animal life. Mixtures, residues, or materials containing hazardous wastes are also considered hazardous wastes; and which therefore cannot be handled or disposed of without special precautions.⁸² Accordingly it is the law that no manufacturing industry shall engage in any activity likely to generate any hazardous waste without a permit issued by the Agency.⁸³ Furthermore export or transit of hazardous waste through the territory of Nigeria shall be with a permit from the Agency.⁸⁴ In addition to a permit any transit of hazardous waste through the territory of Nigeria shall be with a valid Prior Informed Consent.⁸⁵ Finally and for the protection of all stakeholders including the environment every generator or transporter of hazardous waste ought to have an insurance policy to cover the risk caused by the waste.⁸⁶ However the provisions with regard to hazardous waste does not end with the foregoing. Accordingly it is also provided that any generator of toxic or hazardous waste shall treat or cause such hazardous waste or its by-products to be treated; handled, packaged, stored, and disposed of using methods acceptable to the Agency.⁸⁷ For the avoidance of any doubts hazardous wastes include wastes arising from industrial processes; health care/clinical wastes; end-of-life waste of household electrical and electronic appliances; waste resulting from prospecting, extraction, treatment, and storage of mineral resources; wastes which contain compounds such as: copper, zinc, cadmium, mercury, lead and asbestos; decommissioned explosives e.g. ammunition and fireworks, etc; radioactive waste (materials and equipment); etc. All the foregoing clear provisions of these subsidiary legislations are also observed in the breach by the manufacturing industries in Nigeria generally.

3. Further Provisions on Harmful Waste

By definition harmful waste means any injurious, poisonous, toxic or noxious substance and, in particular, includes nuclear waste emitting any radioactive substance if the waste is in such quantity, whether with any other consignment of the same or of different substance, as to subject any person to the risk of death, fatal injury or incurable impairment of physical and mental health, and the fact that the harmful waste is placed in a container shall not by itself be taken to exclude any risk which might be expected to arise from the harmful waste.⁸⁸

From the definition of harmful waste above it could be seen very clearly that harmful waste is circumscribed in hazardous waste. This law, Harmful Waste (Special Criminal Provisions, etc) Act, was one of the laws enacted in the wake of Koko, Delta State, Nigeria dumping of toxic waste in 1987.⁸⁹ Due to the lethal nature of harmful waste the law took the management, treatment and punishment thereof outside the realm of the ordinary so as to treat it with the severity it deserves and demands. The law while precluding and ousting with regard to handling of offences relating to harmful waste the application of every other law including the Diplomatic Immunities and Privileges

⁸² Reg 54 RegFood; see also R.106 RegSan; R. 53 RegChem; R. 69 RegElect; R.56RegPlastic see also Schedule XII RegSan for list of types of Hazardous Waste; see Schedule XIV Regsan for the classification and coding of Hazardous waste and Schedule XV RegSan for Guidelines for labelling and packaging of Hazardous Waste containers.

⁸³ R.44 RegSan; C/FR.39 (1) RegSan which prohibits the dump or discharge of any poison, toxic, noxious or obstructing matter, radioactive waste or other pollutants into the natural environment

⁸⁴ R. 49 RegSan; R. 41(1) RegElect

⁸⁵ R.51 RegSan; See also Articles 4, 5(2), 8 and 10(7) Rotterdam Convention on Prior Informed Consent Procedure for certain Hazardous Chemicals and Pesticides in International Trade (Ratification and Enforcement) Act, CAP R12, LFN 2005

⁸⁶ R. 52 RegSan; see also R. 42 RegElect

⁸⁷ See R.45, R.47, R.48 & R.53 RegSan ; see also Regs 34, 35, 36, 37, 38, 39 & 40 for particular provisions with regard to e-waste which is a class or type of hazardous waste; see further R. 19(3) and Schedule XIII RegMetals for Hazardous Waste Management Guidelines for the Base Metals, Iron and Steel Manufacturing/Recycling Industries Sector

⁸⁸ Section 15, Harmful Waste (Special Criminal Provisions, etc) Act CAP HI LFN, 2004

⁸⁹ K.K. Ezeibe, "The Pitfalls of the NESREA Act, 2007 as an Instrument of Environmental Protection in Nigeria" (2010) *AJBCL* Vol. 2 No 5) 89 – 107, @ 92.

Act,⁹⁰ Section 25 of the Interpretation Act,⁹¹ and the Customs and Excise Tariff, etc (Consolidation) Act,⁹² the law prohibited, declared unlawful and a crime any dealing whatsoever with harmful waste.⁹³ It went on to provide a penalty of imprisonment for life⁹⁴ for all parties to the offence including the aider, procurer, accessories after the fact⁹⁵ and even attempted offender.⁹⁶ Showing the gravity with which the offence is viewed, the Section on penalty went on to provide further as follows – (a) any carrier, including aircraft, vehicle, container and any other thing whatsoever used in the transportation or importation of the harmful waste; and (b) any land on which the harmful waste was deposited or dumped, - shall be forfeited to and vest in the Federal Government without any further assurance other than this Act.⁹⁷ The Act also made such offender liable for any damage (including death of or injury to any person) caused by any harmful waste deposited, dumped or imported by him in civil liability except where the damage (a) was due wholly to the fault of the person who suffered it; or (b) was suffered by a person who voluntarily accepted the risk thereof.⁹⁸

Accordingly, with regard to harmful waste disposal and any offences relating thereto the NESREA Act and all Regulations made pursuant to it, including the ones under discussion in this work will be excluded from application or where it was applied could be discountenanced and the culprit still proceeded against under the Harmful Waste Act with its severe consequences. Thus manufacturing industries that produce harmful waste should be guided as no one knoweth whence comment a Daniel to judgement to remedy environmental abuses in Nigeria.

4. Mandatory Personnel and Infrastructure/Facilities

They are some personnel, infrastructure and facilities that are necessary and by law for effective and efficient prevention and minimization of pollution in manufacturing industries and for individual obedience to the laws and Regulations on environmental protection in the manufacturing industries. These mandatory personnel and facilities include–

(1) Pollution Control Personnel

These are statutory personnel required to be assigned or engaged, designated and empowered to function by and in every manufacturing company in Nigeria.⁹⁹ The core or principal pollution control personnel for a company are the pollution control manager who is the head of the pollution control unit of the company and shall manage and oversee all pollution control and prevention issues of the company; the pollution control supervisor, who shall assist the manager and is to direct and supervise the pollution control officer; and the pollution control officer, who shall deal with technical matters like inspection of the company facilities and raw materials etc. Depending on the size of the manufacturing facility, there shall be separate pollution control officers for air, land and water pollution control. These officers shall be certified by the Agency through capacity building schemes, lecture courses, assessment and qualifying examination.¹⁰⁰ The specific duties of the pollution control manager shall include the following:¹⁰¹

⁹⁰CAP D9 LFN, 2004; Accordingly Section 9, Harmful Waste, *op.cit* excludes diplomatic immunity from extending to crimes committed under the Act.

⁹¹ CAP I23 LFN 2004; Accordingly Section 14, Harmful Waste, *op.cit* excludes the application of Section 25 of the Interpretation Act. Thus where the offence committed under the Harmful Waste Act constitutes an offence under another law be it statute, customary or common law and the offender has been punished under the other law, Section 14 provides that such offender will not escape prosecution and punishment under this Act, which he ought to have escaped given the provisions of Section 25 of the Interpretation Act. Thus *autrefois acquit* and *autre fois convict* will not apply under the Harmful Waste Act, save only if it was obtained under a trial or conviction under the Harmful Waste Act

⁹² CAP C49 LFN, 2004

⁹³ See Section 1(1), (2) & (3) Harmful Waste Act, *op.cit*

⁹⁴ Section 6 *ibid*

⁹⁵ Section 2, *ibid*

⁹⁶ Section 8, *ibid*

⁹⁷ Section 6(a) & (b), *ibid*

⁹⁸ Section 12(1)(a) & (b), *ibid*

⁹⁹ R. 8 (1) & (2) and Schedule XI, RegTex; see also R.8(1) & (2) and Schedule XII RegChem; R.7(1) & (2) and Schedule XI RegFood; R. 10 & Schedule VII RegElect; R.10 & Schedule XV RegMetals; R.10 & Schedule XV RegPlastic

¹⁰⁰ R.8(2) and Paragraph 1 of Schedule XI RegFood, see also R.8(2) and Paragraph 2 of Schedule XII, RegChem; R.8(2) and Paragraph 2 of Schedule XI, RegTex.; R. 10 (2) & Para I of Schedule VII RegElect; R. 10(2) RegPlastic; and R. 10 (2) RegMetals

- (i) to carry out regular Internal Environmental Auditing of the manufacturing facility and to maintain liaison with the Agency and other Government Authorities;
- (ii) to ensure that the responsibilities are very clear for all the staff involved in pollution control;
- (iii) to ensure that daily pollution control practices are complied with;
- (iv) to maintain smooth and proper environmental and safety communication within the facility and the regulatory authorities as well as the host community.

In order to be able to carry out his or her duties effectively the pollution control manager is expected to

- (a) possess the ability or install the appropriate mechanism so as to know when a system is malfunctioning;
- (b) be conversant with and carry out documentation of the environmental management procedure; and be in effective control of the records and documents.
- (c) develop and operate an effective environmental management system
- (d) co-operate and liaise with interested parties such as other related companies, and regulatory agencies;
- (e) establish a corporate-wide environmental management system including risk information feedback system;
- (f) establish an effective monitoring, assessment and self-improvement system; and
- (g) establish a contingency plan and verify same.¹⁰²

The importance of the pollution control personnel to the manufacturing industry in particular and environmental protection in general can never be over-emphasized. But a cursory survey of the manufacturing industries in Nigeria show that very few of them have any thing of such personnel in their employ thus showing the levity with which environmental protection and pollution control is treated by the manufacturing industries. Furthermore the Regulatory Agencies – NESREA inclusive are not helping matters as they are hardly doing anything to enforce the law in this aspect and even generally.

(2) Infrastructure and Facilities for Industrial Sanitation

Apart from similar provisions of the Factory Act¹⁰³ and the Public Health Law,¹⁰⁴ already discussed above, the National Environmental (Sanitation and Waste Control) Regulations¹⁰⁵ provides that every industrial facility shall

- (a) provide potable water supply, adequate sanitary conveniences with hand washing facilities and separate accommodation for both sexes, cloakrooms and canteen.
- (b) provide waste receptacles or bins, with educational and pictorial signs to direct persons to them; and of course eschew littering and indiscriminate disposal of refuse into the environment which is strictly prohibited.¹⁰⁶
- (c) provide receptacles for recyclable materials in appropriate and easily accessible locations; and ensure that recyclable materials are properly packed and neatly stacked.
- (d) service, maintain, and empty the receptacles regularly, sanitarily and in accordance with these regulations.
- (e) ensure that discarded materials are regularly collected and disposed of sanitarily.
- (f) ensure sorting and segregation of solid waste at source

¹⁰¹ Schedule XI RegTex; see Schedule XI and Schedule XII, 9RegFood and RegChem respectively; see further Schedules VII, XV & XV RegElect, RegMetals and RegPlastic respectively

¹⁰² Schedule XI RegTex; see Schedule XI and Schedule XII, 9RegFood and RegChem respectively; see further Schedules VII, XV & XV RegElect, RegMetals and RegPlastic respectively

¹⁰³ *ibid*

¹⁰⁴ Sections 7-13, 40-53, Factories Act CAPFI, 2004

¹⁰⁵ R.41-62, Public Health Rules annexed to the Public Health Law, Laws of Anambra State of Nigeria, 2007

¹⁰⁶ R.8(a)-(h), RegSan

- (g) keep the premises, drains and all public or private lands, streets, lanes, walkaways; beaches or docks within 5 metres of the boundary of the property free from litter at all times.
- (h) plan and set up machinery for combating pollution hazard and maintain equipment in the event of an emergency.¹⁰⁷ Accordingly every company shall install anti-pollution equipment that is based on cleaner production and green technologies; best available technology and best practicable technology for the reduction of pollution, detoxification of effluent and emissions to prescribed standard.¹⁰⁸
- (i) evaluate its installations and ensure that routine controls are sufficient to prevent risks of noise pollution; and provide and ensure the use of personal protective equipment where necessary.¹⁰⁹
- (j) Install Agency approved monitoring equipment to facilitate the accurate observation sampling and measurement of the quality of waste discharges.¹¹⁰ Accordingly it is specifically required that a permit/holder in Chemical, Pharmaceutical, Soap and Detergent manufacturing industries; and Electrical/Electronic Sector who discharges effluent must have in place – flow meters, point inspection chambers, recording apparatus and sampling test points or points of inspection.¹¹¹

It may be pertinent to note that in as much as some of the above mentioned facilities are for sanitation purposes that generally their ultimate objective is environmental protection and pollution control.

(3) Further Issues on Personnel Matters

It is the requirement of the law that every generator of waste including any manufacturing industries shall ensure that waste is handled by a person licensed or registered to transport and dispose same.¹¹² This is so as to ensure proper and sanitary final disposal of waste of all types because a licensed waste manager is more likely to conform to the Regulations and best practices in the transportation and disposal of waste.¹¹³

This is because before such individual is registered or licensed by the Agency, his all round competence, technically and otherwise in the business of waste management would be verified and confirmed.

Secondly the law provides detailed regime for sanitation and hygiene for food handlers, vendors and their establishments/ businesses; which includes that anybody engaged in the handling, preparation, processing or sale of food meant for human consumption shall: undergo routine food handlers test and obtain a medical certificate of fitness, not handle food when they are ill, especially one that has diarrhoea, open wound, boils, running nose, eye discharge, etc., keep their hair clean and covered; and their finger nails short, clean and unpolished; use soap and adequate quantity of water to wash hand frequently, especially after any act that might contaminate food such as using the toilet, sneezing or coughing, touching their eyes, mouth, ears, nose or hair, eating or drinking, emptying rubbish bin, etc.¹¹⁴ It is worthy of note to observe that in as much as these requirement borders on hygiene and sanitation like some already mentioned, however it is instructive to point out that they ultimately augment environmental protection and pollution control. This is because one environment is interconnected and interlinked with the other and if there is a problem or disequilibrium in one place it will eventually affect and spread to the others. For example if epidemic starts in a particular human environment it will eventually spread to other human environments and may eventually get to and

¹⁰⁷ See also R.3 (1), RegFood; RegChem; RegTex; see also R.5(1)RegElect, R. 4(1)RegPlastic and R.4(1) RegMetals

¹⁰⁸ R.4(1), RegFood; RegChem, RegTex, see also R. 5 RegMetals; R. 5(1) & (2) RegPlastic and R. 6 RegElect

¹⁰⁹ R.22 & R.24(2), RegFood, R.24 & R.26(2) RegChem; R.23 & R. 25(2) RegTex. See also R. 26 & R. 28(2) RegMetals; R. 24 & R. 25(2) RegElect; and R. 27 & R. 29 (2) RegPlastic. It should be noted that personal protective equipment transcends auditory devices but extends to equipment like respirators, nose masks, goggles, gloves, boots, helmets etc – see Item C Schedule V, RegSan

¹¹⁰ R. 36(5), RegTex, R.37(5) RegChem and R.35(5) RegFood; see also R.52(5) RegElect; R. 40(5) RegMetals & R.40(5) RegPlastic

¹¹¹ R. 37(8) RegChem and R. 52(5)(a)-(d) RegElect

¹¹² R.4 RegSan, see also R. 34 (1) RegElect

¹¹³ See R.25-31 RegSan for Guidelines for waste managers and transporters etc. which includes the requirements of submission of an Environmental Audit Report (EAR) every 3 years to the Agency by every licensed owner or operator of Waste Management Facility

¹¹⁴ R.6 and Schedule I, RegSan. It must be noted that apart from roadside eateries and food vendors food manufacturing industries include Bread and Confectionaries makers, hotels and restaurants including fast food restaurants, ice cream industries, breweries and mineral waters, etc.

cause problems even in plant and animal environment if left unchecked and uncontrolled. Hence the maxim that one man's health is everybody's health. The importance of these hygiene and sanitation measures to environmental protection therefore can never be over-emphasized. It safeguards and protects the human environment in particular and the general environment in general.

5. Further Statutory Responsibilities of Manufacturing Industries

There are other statutory responsibilities of manufacturing industries with regard to environmental protection and pollution control. These responsibilities are with regard to waste and pollution minimization; and polluter-pays-principle

(1) Waste and Pollution Minimization

Any person who owns or controls a facility or premises which generates waste shall reduce, re-use and recycle packaging materials and waste, to minimize pollution and waste by adopting the following:

- (a) imbibe cleaner production principles to conserve raw materials and energy; and to minimize pollution to the highest degree practicable by endeavouring to prevent or reduce or eliminate pollutants at source, placing less emphasis on external hardware which are end-of-pipe mechanisms.
- (b) segregate waste at source;
- (c) undertake resource recovery, re-use and recycling;¹¹⁵ and focus on reduction of use of water and more efficient use of chemicals;
- (d) ensure safe and sanitary disposal of every waste¹¹⁶
- (e) ensure that the use of organic solvents are minimized; and that the use of ozone-depleting substances are in accordance with the provisions of the National Environmental (ozone layer protection) Regulations.¹¹⁷
- (f) carry out effective treatment of effluent of all types all the time that the plant or unit is operating but shall not dilute effluent to achieve the permissible standards.¹¹⁸
- (g) treatment of all discharged gaseous emissions to the permissible level and as prescribed in the respective Schedules to the National Environmental Regulations for the respective industries or sectors.¹¹⁹
- (h) control or reduce odour where it generates such¹²⁰ and have a sustainable community relations programme¹²¹
- (i) comply strictly to the methods, guidelines and procedures prescribed in the respective regulations for specific industries or sector for collection, storage, handling and analysis of effluent discharge samples for physical, chemical and microbiological parameters; air sampling analysis for gaseous emission and noise measurement and monitoring.¹²² For example all samples collected shall be preserved to avoid contamination or decomposition¹²³ and sampling points geo-referenced¹²⁴-which will go a long way to ensure accuracy and enable verification of the result of every sample analysis.

(2) Polluter-Pays-Principle

This shall apply to every company that pollutes. Accordingly the collection, treatment, transportation and final disposal of wastes shall be the responsibility of the company generating the wastes within the specified standards and guidelines in the respective Regulations.

¹¹⁵ This is excluded for Textile, Wearing Apparel, Leather and Footwear Industries. In some Regulations of NESREA the norm is 5Rs: Reduce, Repairs, Rense, Recycle and Recover – see R. 2(3) & 4(7) RegElect; R. 7(4) RegMetals & R. 7 RegPlastic

¹¹⁶ R. 24 RegSan, See also R.2(2), (4) (5), R.6 RegFood; see R. 2(2) & (4), R. 6 RegTex; R.2(2)(4) & R.6 RegChem, See also Schedule VI & VII RegPlastic; Schedule IV & VIII RegMetals & Schedule V RegElect, Schedule VI RegChem, Schedule VIII RegTex and Schedule VI RegFood for Best Practices to minimize Pollution and waste in the respective industries or Sector.

¹¹⁷ 2009, made pursuant to the NESREA Act and the Montreal Protocol; it has phase out dates of 2010, 2015 for some Ozone depleting substances and 2030 for total phase out of all ozone depleting substances in Nigeria; see R. 9(2)(b) RegFood; R. 10(2)(b) RegChem; R. 9(2)(b) RegTex & R. 12(2)(b) RegPlastic; See also R.13(2)(b) RegMetals

¹¹⁸ R.17(2) (a) & (d) RegFood; and RegTex, see also R.18(2)(a) & (d) RegChem; C/FR.40 & R.41 Regsan; see further R. 19(2)(a) & (d) RegPlastic; RegMetals; R. 17 (1)(a) & (d) RegElect

¹¹⁹ R. 21 (1) and Schedule III RegFood; see also R. 21 and Schedule V, RegTex; R.22 and Schedule III RegChem; R. 22 and Schedule III RegMetals; R. 22 and Schedules II & V RegPlastic; and R. 20 and Schedule XI RegElect

¹²⁰ R. 20(2), RegFood, R. 20(2) RegTex & R.21(2) RegChem; see also R. 22 (3) RegPlastic; R. 20(3) RegElect & R. 22(3) & (4) RegMetals

¹²¹ R. 14, RegFood, R.14 RegTex & R.15 RegChem; see also R. 30 RegMetals; R. 16 RegPlastic; and R. 14 RegElect

¹²² R. 27-34, R. 26-33 and R.28-35, RegTex, RegFood and RegChem respectively; see further R. 31-38; R. 27-33 & R.31-38, RegMetals, RegElect & RegPlastic respectively

¹²³ Rs.29-33(c) RegChem, Regs 28-32(c) RegTex; R. 31 RegFood; see also R. 36 RegPlastic, R. 36 RegMetals

¹²⁴ R. 29 d RegChem, Reg 29d RegTex

Furthermore, in the event of an incident resulting in an adverse impact on the environment whether socio-economically or health-wise the company shall be responsible for –

- (a) the cost of damage, assessment, control and clean-up
- (b) remediation
- (c) reclamation or restoration
- (d) compensation to affected parties, and
- (e) cost of damage assessment and control.¹²⁵

The importance of the above provision in environmental protection cannot be over-emphasized. Accordingly it made clean-up, remediation, restoration, damages and compensation to affected parties a statutory imperative. Thus polluter companies can easily be proceeded against under this provision. The provision therefore removed these issues from the circuitous and highly problematic route of tort and common law¹²⁶ or fundamental or third generation rights enforcement and recovery of damages¹²⁷ where they hitherto lay. Accordingly this is a big step forward and in the right direction too for environmental protection and sustainability. The task that would be required therefore is to attribute or tie a particular environmental abuse, damage degradation or pollution from a particular manufacturing arena to a particular company or manufacturing industry or industries by the Agency and any person affected would recover damages therefrom and the Agency through the Court would make the company to remediate and restore the environment, etc.

6. Enforcement, Incentives and Penalties

(1) Enforcement

With regard to the enforcement of these Regulations Part 4 of the National Environmental (Sanitation and Waste Control) Regulation defined institutional roles and assigned roles and responsibilities to the Federal,¹²⁸ State¹²⁹ and Local Government.¹³⁰ Whereas by that definition of roles the Federal Government through the Agency is to *inter alia*, “enforce” compliance with the provisions of these Regulations,¹³¹ the State and Local Government are to “ensure” compliance with the provisions of these Regulations.¹³² Whether these operative words “enforce” and “ensure” mean the same thing and, the state and local government would be allowed to enforce these Regulations in Court given the usual tier jealousy and competition in Nigeria is left to be seen whenever the occasion present itself for consideration by the courts. However it is the opinion of the writers that the state and local government can equally enforce these laws, Regulations and standards because there is no way one can “ensure” compliance to Regulations without powers of enforcement of same in court.¹³³

Secondly, another stream of thought worthy of consideration is, what criteria did the legislature employ in apportioning and sharing these duties roles and responsibilities to the three tiers of government? A consummate review of the roles and responsibilities as assigned does not make the adopted criteria clear. Accordingly with every due respect, the allotment is neither based on law or even on commonsense. First and foremost, the Constitution assigned refuse disposal, under which many of the functions fall, to the local Government.¹³⁴ And the Supreme Court had held in *Knight, Frank and Rutley V.A.G. Kano State*,¹³⁵ that the functions assigned by the Constitution to the Local

Government Councils under the Fourth Schedule, were functions only they could exercise. Thus apportioning and splitting these responsibilities between the three tiers of government is without foundation and needless. Infact it goes to the root of the constitutionality and legality of the

¹²⁵ R. 5(1), (2) & (3), RegFood, See also R. 5(1), (2), & (3), Reg.Tex; R.5(1), (2) & (3), RegChem; Reg 6(1), (2) & (3) RegMetals; Reg 7(1), (2) & (3) RegElect; and Reg 6(1)(2) & (3) RegPlastic

¹²⁶ See K. K. Ezeibe, ‘The Legislative and Institutional Framework of Environmental Protection in the oil and gas sector in Nigeria – A Review, *op.cit.*, 39 – 76; *Rylands v. Fletcher* (1866) LRI Ex. 265 on tortious rule or principle of strict liability in the Law of Tort.

¹²⁷ See C. C. Ani, ‘The Rudiments of Human Rights’, *op.cit.*; see *India Council of Environ-Legal Action V. Union of India, op.cit.*; And similarly the Pakistan; case of *Shela Zia v. Water and Power Development Authority PLC* 1994 S.C. A 16 where a group of citizens sued and obtained a Supreme Court judgement stating that “The right to life included a right to live in a clean environment.” Thus judicially recognizing and applying, the right to clean environment as enshrined in the United Nations Commission on Human Rights

¹²⁸ R.63(a) – (O), RegSan

¹²⁹ R.64(1) & (2), RegSan

¹³⁰ R.65(1) & (2), RegSan

¹³¹ R.63(6), RegSan

¹³² R.64(2)(f) & R.65(2)(f), RegSan

¹³³ C/F R.67 RegSan; R.40(1) RegFood

¹³⁴ See Items 1(e), (h), K(iv) Fourth Schedule to 1999 Constitution (as amended)

¹³⁵ (1998)7 NWLR (Pt 556) 1-37

Regulations and the enabling law. By virtue of the provisions of the Constitution of the Federal Republic of Nigeria, does the Federal and State government have the powers to legislate and equally participate in “refuse disposal” at all?¹³⁶ Are they well positioned to execute such responsibilities satisfactorily? Going into some of the details of the assigned responsibilities, what is the difference between abattoir and slaughter house that one should be assigned to the state and the other to the Local Government, when they both mean the same thing? Another example is the case of five star to one star hotels, and that of large, medium and small scale food premises, what criteria informed the sharing of the monitoring? Are all these establishments not in one local government or the other? Is it not the same calibre of personnel that exists across the three tiers of government? Even if where the necessary caliber of personnel does not exist, they should be recruited and each tier of government allowed and empowered to perform their legitimate duties as obtains in other lands. After all, the Local Government is best situated to perform most of these functions as they are the tier on ground. The federal and state governments should concern themselves with policy formulation and only federal and state matters respectively.¹³⁷ For example environmental matters cutting across states for federal government and that cutting across more than one local government in a state for states. The enormity of responsibilities sequestered to NESREA is probably why it’s impact is not being felt anywhere in the country. This is inspite of the fact that they have zonal offices in all the zones and field offices in almost all the states of the Federation.

(2) Strategic Alliance Programmes (SAPs)

In order to ensure effective implementation of these Regulations and Promote Stakeholder involvement in environmental sanitation and pollution control; the following programmes are to be implemented by government in collaboration with the public and private sectors. These programmes called strategic alliance programmes are as follows:

- (a) Waste Minimization Programme
- (b) Extended Producers Responsibility Programme
- (c) Plastic film phase-out programme
- (d) Hazardous Waste Management Programme
- (e) Waste Management Enlightenment Programme (Information, Education and Communication)
- (f) Research and Development Programme on Environmental Sanitation
- (g) National Waste or Sanitation Databank¹³⁸

As part of SAPs and for proper harmonization and implementation of same, all states and Local Governments in Nigeria shall ensure that their programmes conform to the Agency’s programmes on SAPs.¹³⁹

Since 2009 when these Regulations were made till now none of these programmes have commenced, it is therefore a wonder when these programmes are going to be kicked off.

(3) Enforcement Actions

Any contravention of any of these Regulations or the terms of a permit or licence or the enabling legislation is an offence punishable by law on conviction. Accordingly enforcement actions under the Regulations include:

- (I) an enforcement notice¹⁴⁰
- (II) a second enforcement notice or reminder (if the first one was not complied with)¹⁴¹
- (III) a suspension notice (or any other punitive action as may be necessary) issued on failure to comply with the second notice within the time specified therein.¹⁴²

¹³⁶ *Ibid*, see also S. 1(3) CFRN 1999 (as amended); *A.G. Cross River State & Anor v. Matthew Ojua* (2011) 5 TLRN 5 at 19

¹³⁷ The Constitution by the provisions of the Exclusive and Concurrent Lists defined Federal and State Matters while the Fourth Schedule removed the Local Government matters from the so-called Residual list. Thus the Nation’s Federal System of government should always be applied to the hilt in every circumstance. The State government should always live up to expectation and should not be docile and allow the Federal government to arrogate powers not granted her by the Constitution to herself. There is no Federal System of Government where such all encompassing law and omnibus Agency like NESREA would be created and allowed to operate

¹³⁸ R.66(a)-(g), RegSan

¹³⁹ R.105, RegSan

¹⁴⁰ R.41(1) RegFood; R.42(1) RegTex; 43(1) RegChem; see also R.56(1) RegElect; R. 45(1) RegMetals; and R. 44(1) RegPlastic

¹⁴¹ R.42(1) RegFood; 43(1) RegTex; R.44 (1) RegChem; see also R. 59 RegElect; R. 46 (1) RegMetals; and R. 45(1) RegPlastic

¹⁴² R.42(1)(a) RegFood, R.44(2) RegChem; R. 45(2) RegPlastic, see also R. 46(2) RegMetals; and Reg 60(1) RegElect. C/F Section 30(1)(g) NESREA Act which provides that the Agency requires order of Court to suspend activities

An enforcement notice shall be served if the Agency is of the opinion that a company has contravened, is contravening, or is likely to contravene any condition of a permit issued under these Regulations¹⁴³ or otherwise contravenes these Regulations.¹⁴⁴

Furthermore an enforcement notice shall¹⁴⁵ - (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 maybe; and

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

As for a suspension notice, it suspends a permit and such permit shall cease to have effect as stated in the notice.¹⁴⁶

These Regulations have indeed introduced a novel enforcement process here which is contrary to the traditional enforcement modus of a single abatement notice, verification of compliance or none compliance, summons and arraignment /prosecution in Court.¹⁴⁷ However, it is not clear in these Regulations when or at what point an offender would be taken to Court which to our mind ought to be where the contravening individual or company fails to obey the suspension notice and to comply with the enforcement notice subsequently. Nevertheless it should be noted that the enabling legislation laid down that any prosecution of offences under the Act or Regulations made under the Act shall be with the consent of the Attorney General of the Federation.¹⁴⁸ This provision should however be considered vis-a-vis the power granted the Agency by the same NESREA Act to establish mobile courts to expeditiously dispense cases of violation of environmental regulations.¹⁴⁹ The question is how productive or “expeditious” and mobile would such mobile courts be, given the fact that every case that would go to it shall be with the consent of the Attorney General of the Federation?¹⁵⁰ Moreover when the definition of court for purposes of the order is restricted by the NESREA Act to the State and Federal High Courts and does not include the mobile court established under the Act by the Agency.¹⁵¹ Thus implying that even if the mobile court is in place, all the warrants and orders of court prescribed under this Act must be obtained from the High Courts and not the mobile courts. Nevertheless another pertinent question is, can a subsidiary legislation grant powers withheld or denied by the enabling legislation? The answer definitely is in the negative. Thus the Regulations cannot grant the Agency power to suspend activities *simpliciter* or *suo motu* and without the order of Court.¹⁵² It would indeed be splitting hair to argue that suspension of permit is not the same thing with suspension of activities provided in the Act.¹⁵³ Hence the need to amend the NESREA Act to bring it in line with operational practical realities.¹⁵⁴ Furthermore, powers to enter, search, detain and sieze granted the Agency personnel by the Regulations¹⁵⁵ are also contrary to the provisions of the NESREA Act which provides that such could only be done with warrant from Court.¹⁵⁶

(4) Incentives

This is another novel idea introduced by the NESREA Act and her Regulations in environmental protection

¹⁴³ R.41(1) RegFood; R.42(1) RegTex; R.43 (1) RegChem; see also R. 56(1) RegElect; R. 45(1) RegMetals; and R.44(1) RegPlastic

¹⁴⁴ R.41(3) RegFood; R.42(3) RegTex; R.43(3) RegChem; see also R. 56(3) RegElect; R. 45(3) RegMetals; and R. 44(4) RegPlastic

¹⁴⁵ R.41(2) RegFood; R.42(2) RegTex; R.43(2) RegChem; see also R. 44(2) RegPlastic; R.45(2) RegMetals; and R. 56(2) RegElectric

¹⁴⁶ R.43(1) RegFood; R.44(1) RegTex; R.45(1) RegChem; see also R. 60(2) RegElect; R.47 (1) RegPlastic; and R. 48(1) RegMetals

¹⁴⁷ Sections 8 & 9 Public Health Laws, Laws of Anambra State, 2007

¹⁴⁸ Section 32(3), NESREA Act, CAP N164, 2007

¹⁴⁹ Section 8(f), *ibid*; see also K.K. Ezeibe, “The Pitfalls of the NESREA Act, 2007 as an Instrument of Environmental Protection in Nigeria, *op.cit* at 98 – 101 for a further discussion of these provisions of the NESREA Act.

¹⁵⁰ K.K. Ezeibe, “The Pitfalls of the NESREA Act, 2007 as an Instrument of Environmental Protection in Nigeria, *ibid* at 100-101.

¹⁵¹ See Section 37, NESREA Act, 2007

¹⁵² See footnote 136 above

¹⁵³ Section 30(1)(g), NESREA Act, *op. cit*

¹⁵⁴ K.K. Ezeibe, “The Pitfall of the NESREA Act, 2007, etc, *op.cit*, 100-101; 105

¹⁵⁵ R. 56(4) RegElect; R. 52 RegChem

¹⁵⁶ Section 30(1)(a) NESREA Act; see also K.K. Ezeibe, “The Pitfalls of the NESREA Act, 2007 as an Instrument of Environmental Protection in Nigeria, *op. cit* at P. 99

and pollution control in Nigeria. The respective Regulations provides¹⁵⁷ for model and a modus of incentives, recognition and encouragement to manufacturing companies and organizations for environmental responsibility, excellence, leadership and manifest exemplary environmental compliance records. In pursuance of this therefore, the Agency shall institute the annual compliance flag Awards through which it shall certify the best environmentally performing and standard or control compliant company or organization with the NESREA Green Mark (✓)¹⁵⁸ flag. Thus the Logo of the NESREA Green Mark (✓) flag shall only be used by companies and organizations certified and duly recognized by the Agency as being at the top and best environmental wise.¹⁵⁹

(5) Penalties

The Regulations provide punishment on conviction for any violation of the Regulations both for individuals and for corporate entities. Meanwhile the offences are defined in Part VI of each of the Regulations¹⁶⁰ under discussion and they include any breach of any mandatory requirement or prescriptions of the Regulations. The penalty for an individual on conviction is a fine not exceeding the sum of ₦200,000 or to imprisonment for a term not exceeding two years or to both such fine and imprisonment and an additional fine of ₦5000 for every day the offence subsists.¹⁶¹ For corporate bodies the penalty on conviction is a fine not exceeding ₦1, 000,000 and an additional fine of ₦50, 000 for every day the office subsists.¹⁶² Thus the fine could be as little as ₦1.00 but shall not be above ₦200,000 for individuals and ₦1,000,000 for corporate bodies. Accordingly the exact fine for offences are left at the discretion of the judge which is likely to be guided by the magnitude of the offence and the judge's knowledge of and inclination to environmental issues. It should be noted that only with regard to the Chemical, Pharmaceutical, Soap and Detergent industry and the Electrical/Electronic sector is the Agency granted power to enter and seal any facilities contravening the provisions of the Regulations.¹⁶³ But given the provision of the enabling law that such power could only be exercised with an order of Court.¹⁶⁴ It is therefore apparent that the power to seal cannot be exercised without an order of Court as provided in the Regulations.

The penalties above, in our humble opinions are commensurate with contemporary values and as today when compared to the paltry and ridiculously low penalties obtainable in such laws in the past. It would definitely serve as a veritable deterrent to prospective or potential offenders if machinery is actually put in motion to enforce these laws and Regulations. The issue of weak enforcement is generally the bane of laws in Nigeria. This is more so in the environmental sector which though is of very vital importance but the level of awareness and urge to comply and even enforce the law is still very low. This is inspite of serious environmental problems generally. Such other serious environmental issues include desertification, erosion refuse disposal, oil and gas pollution etc.¹⁶⁵ The appalling inertia in compliance and enforcement, especially with regard to manufacturing industry could be attributed to ignorance; poverty, corruption, lack of political will and support, lack of manpower and dearth of skilled environmental protection personnel, government inordinate drive and quest for industries and investment, dearth of infrastructure and government failure to provide basic amenities, etc.

¹⁵⁷ R. 50-51 and Schedule XII, RegFood; R.52-55 and Schedule XII RegTex, and R.53(1)-(5) and Schedule XIII RegChem; see also R. 68 RegElect

¹⁵⁸ R.53(4) RegChem; see also R.55(1) RegTex; and R.53(1) RegFood

¹⁵⁹ R.53(5) RegChem; see also R.55(2) RegTex and R.53(2) RegFood

¹⁶⁰ Save in RegElect where the offences were defined in Part VII

¹⁶¹ R.49(1) RegFood; R.51(1) RegTex and R.51(1) RegChem; see also R. 56(1) RegMetals; R. 55(1) RegPlastic; R. 67(2) RegElect. However R. 67(1) RegElect has a peculiar offence with a fine of not more than ₦500,000 or two years imprisonment or both fine and imprisonment for the offence of importation of end-of-life, unusable or unserviceable Electrical Electronic Equipment into the country.

¹⁶² R. 49(2) RegFood; R. 51(1) RegTex and R.51(2) RegChem; see also R. 56(2) RegMetals, R.55(1) RegPlastic; & R. 67 (3) RegElect

¹⁶³ R.52 RegChem; R. 56(4) RegElect

¹⁶⁴ Section 32(3) NESREA Act, *op.cit.*, specifically the Section used the term "Obtain an Order of Court..."

¹⁶⁵ See K. K. Ezeibe and M.N. Umenweke, "The Nexus Between Environmental Law, Social Justice and Development - An Overview of the Practical Realities in Environmental Protection in Nigeria" (July 2014 Asian Academic Research Journal of Multi-Disciplinary – ASARJM, Vol I Issue 23) 724-754 at 740-753

CONCLUSION AND RECOMMENDATIONS

Recommendations

(1) Proactive Management and Enforcement Team

The appointment of a vibrant and proactive management and enforcement team at every office of NESREA, more especially at the National Headquarters is highly recommended. This is a *sine qua non* for eliciting greater compliance to the laws and regulations by industries and a more pragmatic enforcement thereof. Thereby addressing the present lack lustre performance and invisibility of the Agency inspite of the extant plethora of appropriate laws and regulations available to it. A good example to buttress this point in Nigeria is the performance and rating of NAFDAC following the appointment of Professor Dora Akunyili as the Director General of NAFDAC at the inception of the 4th Republic. Despite the fact that there was no new legislation in that area, NAFDAC which had been vegetating since it's inception many years ago came alive all of a sudden and started delivering on her very crucial mandate. Thus showing that the problem with the NAFDAC was not legislation or lack of it but that a proactive and result oriented leadership could pull the rug from under the feet of inertia and non-performance. Accordingly such a proactive and result orientated leadership is highly recommended for NESREA.

One veritable positive corollary to the appointment of such focused leadership for NESREA is that the Agency would eschew and distance itself from the hydra-headed monster of the so-called Nigerian factor, namely corruption, nepotism, tribalism, etc. which is a deadly debilitating factor to service delivery and law enforcement; thus killing two birds with one stone.

(2) Information, Education and Communication (IEC)

The place of effective and appropriate publicity and sensitization of Nigerians for environmental sustainability in general; and environmental protection and pollution minimization in manufacturing industries in particular through appropriate IEC materials in the mass media and directly can never be over-emphasized. Accordingly this is highly recommended in the circumstance and for the attainment of the goals and objectives of the laws and regulations in the sector. In this regard Uwais had said that environmental laws well intentioned as they are will serve no useful purpose unless the public, for whose benefit and interest they are made, appreciate them and make conscientious effort for the realization of their objectives.¹⁶⁶ Accordingly, it is recommended that the contents and objectives of the laws on environmental protection and the tenets of environmental sustainability in general and that for the manufacturing industries in particular should be publicized and; a massive and intensive sensitization of the public and relevant stakeholders including the management cadre of manufacturing industries, judicial officers, enforcement agencies, etc, on environmental protection and sustainability in general and the imperatives thereof in the manufacturing sector in particular should be embarked upon by the Agency. Furthermore it is also recommended in this regard that environmental sustainability as a whole should be made part of the educational curriculum starting from the nursery school to the secondary school level. This will inculcate environmental education in the people from onset and make it more probable that they will comply with and enforce environmental laws as adults.

(3) Establishment of Committee on Environmental Protection and Pollution Control by the Private Sector

The organized private sector under the auspices of the Manufacturers Association of Nigeria (MAN) and the respective Chambers of Commerce and Industry should establish Committees on environmental protection and pollution control in all their locations. This committee to be established with mutual informed consent of members shall serve as in-house monitoring, enforcement, and liaison body. Such committee could also play vital roles in the organization and funding of joint programmes like the extended producers Responsibility programme and other aforementioned strategic alliance programmes which the government ought to implement under the regulations in collaboration with the public and private sectors.

¹⁶⁶ M.L. Uwais, Chairman's Address delivered at the opening ceremony of the International Conference on Environmental Law and Policy held at the Law Centre, Lagos State University in S. Simpson & O. Fagbohun, Ed. **Environmental Law and Policy**, (Lagos, Law Centre, Faculty of Law, Lagos State University, 1998)439

(4) Establishment of a Joint or Central Environmental Protection Fund for the Manufacturing Industry

It is highly recommended that a joint or central environmental protection fund be established for the manufacturing industry in Nigeria through a new legislation or relevant amendment of the NESREA Act by Government. Into this fund the government and every manufacturing company, depending on the nature of its operations and products will make a regular contribution. From this fund the common issues of the aforementioned strategic alliance programmes would be financed. This fund shall be similar to what obtains in United States of America with the (Super Fund) Oil Spill Liability Trust Fund¹⁶⁷ and in Nigeria, to a lesser successful extent, with the Environmental Protection and Rehabilitation Fund established under the Nigerian Minerals and Mining Act.¹⁶⁸ For the avoidance of doubt, the government's contribution to such a fund would be from taxes like Value Added Tax (VAT) and Company's Income Tax. Accordingly a specified percentage of these taxes would be paid into the fund by government.

(5) Environmental Conscious Manufacturing and Product Recovery (ECMPRO)

The full implementation in Nigeria of ECMPRO which is driven in developed countries mainly by the escalating deterioration of the environment evidenced by diminishing raw materials resources, overflowing waste sites and increasing levels of pollution¹⁶⁹ cannot be overemphasized. It is the writer's view that implementation of ECMPRO in Nigeria could be driven comfortably by the extant laws and regulations on environmental protection and pollution control in the manufacturing industries. This is therefore highly recommended to be fully implemented and pursued assiduously by the manufacturers, the society, the regulatory agencies and government. For the avoidance of doubt ECMPRO involves – integrating environmental friendly thinking into product development including design, materials selection, manufacturing process and delivery of the product to the consumers, plus the end-of-life management of the product after its useful life.¹⁷⁰ However, it is our opinion that a satisfactory compliance and/or enforcement of the extant National Environmental Laws and Regulations for the manufacturing industries and a corresponding implementation of all the aforementioned strategic alliance programmes will lead to the realization of ECMPRO in Nigeria and the ultimate goal of environmental protection and sustainability for the Nation in the manufacturing sector.

(6) Put Pollution Control Managers in Place and Functional

The pollution control manager is a mandatory and statutory personnel for every manufacturing industry. Thus it is the recommendation of this paper that NESREA and other regulatory agencies should compel every manufacturing industry to designate or recruit a competent and qualified pollution control manager. The management of every company should also enable and make such personnel and his or her subordinates functional. The coming on stream of such personnel in every manufacturing concern will go a long way in ensuring better compliance to environmental regulations by every industry and also promote their better enforcement.

(7) More Recruitment and/or Establishment of Corresponding Agencies

It is also our recommendation that to meet her onerous responsibilities of environmental policing of the nation, NESREA should recruit more qualified environmental protection and pollution control professionals. These professionals should be recruited and deployed at the Agency's Headquarters and especially at the Zonal and field offices where the major actions lie. The present practice of engaging inadequate and unqualified personnel does not help the cause of NESREA and our environment. In the alternative, it is our view that the NESREA Act should be amended to make room for the creation of corresponding agencies at the state and Local Government levels for the untrammelled enforcement of the laws, especially the NESREA Act and the Regulations made pursuant thereto including the ones for manufacturing industries by these proposed corresponding agencies. This will go a long way towards a better enforcement of the NESREA Act and its regulations generally and in the manufacturing industries in particular and would equally ventilate the federal structure of the nation better.

(8) Political Will and Support

It is our view and we so recommend that political will and support is vital to the success of any government agency more especially that of environmental protection. Furthermore the Agency equally require proper funding, capacity building, sundry materials and equipment, etc to be provided by government so as to enable it deliver on its mandate. Furthermore, in as much as governments at all levels are seeking to attract industries and investments, it should not be at the expense of our environment and existing environmental protection regulations and regimes. Accordingly government and the regulatory agencies must device investor friendly

way of insisting and ensuring that these earth saving regulations must be complied with by every manufacturing industry, including incoming, new and old ones. Thus attracting and retaining the industries and also protecting and safeguarding our environment. Finally government at all levels should strive to provide social amenities and infrastructure within the areas of their jurisdiction. Such facilities include electricity, potable water supply, motorable roads, security, health facilities, proper refuse disposal and management services, etc. This will go a long way towards promoting compliance to environmental regulations by the industries and enforcement of same by the regulatory agencies. For example wading through algae infested water logged and unmotorable road to tell a manufacturing industry that their gaint electric generating set is constituting the environmental hazard of noise pollution and fume emission to residents both in the day and at night and is infact contrary to environmental law and regulations would be indeed a very awkward situation to both the manufacturer and the enforcement agent/government. This is more so because government has failed in her duty to provide motorable road and electricity.

CONCLUSION

This work has indeed critically reviewed and analysed comprehensively the law and practice of environmental protection for manufacturing industries in Nigeria under four major sub-heads namely introduction, definition of terms, primary legislations on environmental protection for the manufacturing industries in Nigeria, and imperatives of the National Environmental Regulations for manufacturing industries in Nigeria. This work will definitely serve as a veritable guide to any stakeholder in the sector given the debt thereof.

As could be seen from submissions in the work and the contents of all the laws and Regulations examined in this work, the Nigeria nation indeed have prescribed and put in place a plethora of patently, vivid and comprehensive environmental friendly, enforceable and sustainable regime for environmental protection, sustainability and pollution control in the manufacturing industries that is in line with the contemporary world best practices, more especially with NESREA Act and the Regulations made pursuant thereto. However the obvious pretty kettle of fish generally in Nigeria and in this sector in particular as aforesaid is the issue of compliance to and enforcement of these laws and regulations which leaves nothing to write home about but very much to be desired. This is because most of these laws and regulations are observed in the breach and the enforcement drive is very weak if not non-existent. Accordingly it is our humble opinion and view that in as much as no man made laws, regulations and institutions are exhaustive and perfect, and these laws, regulations and institutions on environmental protection and pollution control in the manufacturing sectors are no exception. Nevertheless a satisfactorily enforcement of these laws and regulations even as they presently are by the Agency in particular and other stakeholders in general will surely go a very long way to achieve the objective of preventing and minimizing pollution and protecting the environment from all operations and ancilliary activities of the manufacturing industries in Nigeria. This will in actual fact go a very long way towards enthroning environmental protection and sustainability in Nigeria. Finally we presented hereinabove some recommendations arrived at in the course of this work and it is our belief that the implementation of these recommendations will engender higher compliance to these environmental protection laws and regulations in the manufacturing industries in particular and the country generally; and accordingly enthrone environmental protection, it's sustainability and sustainable development in Nigeria.

¹⁶⁷ Austin P. Oilney, et al, "Oil Pollution Act" in *Environmental Law Handbook*, 18th Ed, Thomas F.P. Sullivan (Ed) (2005 Government Institute, Maryland United States) 359

¹⁶⁸ Sections 30 & 121, Nigerian Minerals and Mining Act CAP N162, 2007

¹⁶⁹ Askiner Gungor and Surendra M. Gupta "Issues in Environmentally Conscious Manufacturing and Product Recovery – a Survey." (c) 1999 Elsevier Science Ltd, Boston Ma, 811 – 853 @ 811.

¹⁷⁰ *ibid*