

Extraordinary

NATIONAL ENVIRONMENTAL CONTROL OF VEHICULAR
EMISSIONS FROM PETROL AND DIESEL ENGINES
REGULATIONS, 2011



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**NATIONAL ENVIRONMENTAL (CONTROL OF VEHICULAR
EMISSIONS FROM PETROL AND DIESEL ENGINES)
REGULATIONS, 2011**



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**NATIONAL ENVIRONMENTAL (CONTROL OF VEHICULAR
EMISSIONS FROM PETROL AND DIESEL ENGINES)
REGULATIONS, 2011**

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

[28th Day of April, 2011]

Commence-
ment.

PART I—CONTROL OF VEHICULAR EMISSIONS FROM PETROL ENGINE

1. The purpose of these regulations is to restore, preserve and improve the quality of air. The standards contained herein provide for the protection of the air from pollutants, as well as, take into account amongst others :

Purpose.

(a) Citizens right of access to clean air ;

(b) Reducing and preventing air pollution through the improvement of the quality of automobiles that operate on the road way ; and

(c) Improve the health of Nigerians especially in the urban areas with high incidence of air pollution due to increased number of automobiles that ply the roads.

2. This Part shall apply to a new motor vehicle registered after 28th April, 2011 and to a motor vehicle which is already registered but "whose engine has been replaced".

Application
of Part 1.

3.—(1) Subject to sub-regulations (3) and (4) of this regulation, a person shall not install or replace the engine unit of any motor vehicle with a petrol engine which emits pollutants in excess of the standard prescribed in Schedule I to these Regulations.

Restriction
on
installation
or replacing
of engine
unit.

(2) Vehicles having a reference mass (rm) of less than (<) 1305kg, from 1305kg to 1760kg and above (>) 1760kg shall comply with the emission standard of pollutants as prescribed in Schedule I to these Regulations.

(3) With effect from 28th April, 2011, any new model of motor vehicle shall comply with the emission standard of pollutants as prescribed in Schedule III to these Regulations.

Ban on two-
stroke
engines and
motor
vehicles with
no emission
reduction
technology.

(4) With effect from 28th April, 2011, any manufacturer or importer shall not assemble, manufacture or import the following for use in Nigeria :

(a) a "2 (two)-stroke engine" ;

(b) a motor vehicle that does not have installed an approved emission reduction technology.

(5) Four stroke Engine shall be used in place of 2 (two) stroke Engine

(6) With effect from 1st January, 2015 all new model motor vehicles shall comply with the emission standard as prescribed in Schedule II to these Regulations.

Application
of
Regulation 3.

4. The provisions of regulation 3 of these Regulations shall only apply to a motor vehicle intended to be used on the road, with or without body, having at least two wheels but shall not apply to a motor vehicle used for racing purposes in designated racing circuits or in approved racing events.

Test to be
conducted
by
assembler,
manufacturer
or importer.

5.—(1) For the purpose of verifying the exhaust emission control standard as prescribed in Schedule 1 to these Regulations, the Agency may require any assembler, manufacturer or importer to conduct such necessary tests as prescribed in Schedule IV, to these Regulations as may be determined by the Agency in the presence of an authorised officer at any licensed facility.

(2) For the purpose of sub-regulation (1) of this regulation, samples of not more than one per cent of the annual projected number of motor vehicles shall be selected at random.

(3) Where the Agency has directed any assembler, manufacturer or importer to conduct any test under this regulation, the assembler, manufacturer or importer shall submit periodically the results of such tests to the Agency.

Certification
by
assembler,
manufacturer
or importer.

6. Prior to the delivery of a new or used motor vehicle, the assembler, manufacturer or importer shall issue a certificate to the owner stating that it has been properly inspected, tested and adjusted to meet the requirements of the provisions of regulation 3 of these Regulations.

PART II—GASEOUS EMISSION CONTROL FROM PETROL ENGINE

Application
of Part II.

7. This Part shall apply to all motor vehicles irrespective of whether in motion or idling.

Level of
gaseous
emission
from petrol
engine.

8.—(1) Every petrol engine which is in use, in operation or is capable of being operated shall not emit gaseous pollutant exceeding the emission standard as prescribed in Schedules I and III to these Regulations.

(2) Every petrol engine which is in use, in operation or is capable of being operated shall not emit visible smoke from the exhaust pipe.

Emission
test for
petrol engine
in use.

9.—(1) An emission test for a petrol engine which is in use shall be conducted in accordance with the methods as specified in Schedule IV to these Regulations and the test result shall be recorded in the Test certificate as prescribed in Schedule V to these Regulations.

(2) (a) where a motor vehicle is required to undergo emission test, such test shall only be carried out at a licensed facility.

(b) vehicles in operation in Nigeria shall undergo emission testing once a year and certified by the Agency.

(c) new vehicles (not used vehicles) will not be required to undergo annual emission testing until after three (3) years of operation in Nigeria.

(3) Any person who uses a motor vehicle shall comply with the requirements of these Regulations or the provisions of any other written law in relation to the emission standards for his motor vehicle or may at his own expense, request for an emission test to be carried out at a licensed facility.

10. The Agency or any authorised officer may issue a prohibition order as specified in Schedule VI to these Regulations prohibiting the further operation of any motor vehicle that has undergone an emission test in accordance with regulation 9 of these Regulations, and has contravened the acceptable conditions specified in Schedule III to these Regulations within the period of three months after the gaseous emission test.

Prohibition order on vehicle.

11.—(1) The prohibition order shall be securely attached to a conspicuous spot on the windscreen of the motor vehicle.

Vehicle under Prohibition Order.

(2) The motor vehicle shall not be operated until its defects have been remedied to the satisfaction of the Agency or the authorised officer designate, after which the prohibition order may be withdrawn.

12. The owner or the person operating the motor vehicle shall ensure that the prohibition order is not in any way obscured, rendered illegible or removed except with the written approval of the Agency.

Prohibition order not to be removed.

13. A person shall not allow the engine of a motor vehicle idling for more than five (5) minutes in an enclosed or a partially enclosed parking area or any terranus.

Engine to be put off in enclosed area.

14.—(1) For the purpose of regulation 4 of these Regulations, a log book containing the motor vehicle registration number, the date, time and result of any test done shall be kept by the owner of the motor vehicle.

Log book to be kept.

(2) The records in the log book shall be made available for inspection by the Agency or any authorised officer.

15. A fleet operator shall operate and maintain an approved facility and shall carry out the smoke test on all his motor vehicles periodically or more frequently as and when directed by the Agency in writing.

Fleet operator to maintain licensed facility.

PART III—CONTROL OF VEHICULAR EMISSIONS FROM DIESEL ENGINE

- Application of Part III. **16.**—(1) This Part shall apply to a new motor vehicle registered after 28th April, 2011 and to a motor vehicle whose engine has been replaced.
- (2) Where a motor vehicle is required to undergo emission test, such test shall only be carried out at a licensed facility.
- Restriction on installation or replacement of engine. **17.**—(1) A person shall not install, or replace the engine unit of any motor vehicle with a diesel engine which emits 'pollutants' in excess of the standard prescribed in Schedule VII to these Regulations.
- (2) Notwithstanding sub-regulation(1) of this regulation, on or after 1st January, 2015 any new model of motor vehicle shall comply with the emission standard of pollutants as prescribed in Schedule VIII to these Regulations.
- Application of Regulation 17. **18.** The provisions of regulation 17 of these Regulations shall only apply to a motor vehicle intended to be used on the road, with or without body, having at least two wheels and a designed maximum speed exceeding 25 kilometers per hour.
- Test to be conducted by assembler, manufacturer or importer. **19.**—(1) For the purpose of verifying the exhaust emission of pollutants standard as prescribed in Schedule VII to the Regulations the Agency may require any assembler, manufacturer or importer to conduct such necessary tests as may be determined by the Agency in the presence of an authorised officer, at a licensed facility at the cost of the assembler, manufacturer or importer.
- (2) For the purpose of sub regulation (1) of this regulation, samples of not more than one percent of the annual projected number of motor vehicles shall be selected at random.
- (3) Where the Agency has directed any assembler, manufacturer or importer to conduct any test under this regulation, the assembler, manufacturer or importer shall submit periodically the results of such tests to the Agency.
- (4) Emission Test Certificate as prescribed in Schedule XI to these Regulations shall be issued.
- Ban on diesel engines with no emission reduction technology. **20.** With effect from 28th April, 2011, any assembler, manufacturer, or importer shall not manufacture, assemble or import any vehicle with a diesel engine without a certified emission reduction technology for the control of emissions from such vehicles.
- Certification by assembler, manufacturer or importer. **21.** Prior to the delivery of a new motor vehicle to its owner, the assembler, manufacturer or importer shall issue a certificate stating that it has been inspected, tested and adjusted to meet the requirements in regulation 16 (2) of these Regulations.

22. (1) The maximum concentration of smoke at or near the final point of emission from the exhaust pipe into the atmosphere shall not exceed Ringelmann No. 2 or (50 HSU on a smoke meter) of the Ringelmann Smoke Chart for a continuous period of more than 10 seconds when observed.

Maximum concentration of smoke.

(2) Every motor vehicle which is in use, in operation or is capable of being operated shall not emit visible smoke from the exhaust pipe.

(3) Observation of smoke from a motor vehicle is to be carried out by an authorised officer who has undergone a smoke observation course and has been certified competent by the Agency.

23.—(1) The maximum density of smoke at or near the final point of emission from the exhaust pipe of any motor vehicle when tested under the free acceleration test with a smoke meter shall not exceed 50 HSU or equivalent smoke units.

Maximum density of smoke permitted.

(2) The free acceleration test for smoke density shall be conducted in accordance with the methods specified in Schedule IX to these Regulations and the test results shall be recorded in a Test Certificate as shown in Schedule X to these Regulations.

24. The Agency or any authorised officer may issue a prohibition order as specified in Schedule VI to these Regulations prohibiting the further operation of any motor vehicle that :

Prohibition order on vehicle.

(1) has undergone a smoke test in accordance with regulation 22 of these Regulations and the test result exceeds 50 HSU or equivalent smoke units ; and

(2) has contravened the acceptable conditions specified in regulation 23 of these Regulations within the period of three months preceding the smoke test.

25.—(1) The prohibition order shall be securely attached to a conspicuous spot on the windscreen of the motor vehicle.

Vehicle under prohibition order.

(2) The motor vehicle shall not be operated until its defects have been remedied to the satisfaction of the Agency or the authorised officer after which the prohibition order may be withdrawn.

26. The owner or the person operating the motor vehicle shall ensure that the prohibition order is not in any way obscured, rendered illegible or removed except with the written approval of the Agency.

Prohibition order not to be removed.

27. A person shall not allow the engine of any motor vehicle to idle for more than five (5) minutes in an enclosed or a partially enclosed parking area or any terminus.

Engine to be put off in enclosed area.

Log book to be kept. 28.—(1) For the purpose of regulation 18 of these Regulations, a log book containing the motor vehicle registration number, the date, time and result of any test done shall be kept by the owner of the motor vehicle.

(2) The records in the log book shall be made available for inspection by the Agency or any authorised officer.

Fleet operator to maintain licensed facility. 29. A fleet operator shall operate and maintain an approved facility and shall carry out the smoke test on all his motor vehicles periodically or more frequently as and when directed by the Agency in writing.

PART IV—OFFENCES AND PENALTIES

Offence. 30.—(1) Any person who violates any of the provisions of these Regulations commits an offence and shall on conviction, be liable to a fine not exceeding Fifty Thousand Naira (₦50,000.00) or to imprisonment for a term not exceeding one year or to both such fine and imprisonment and an additional fine of One Thousand Naira (₦1,000.00) for every day the offence subsists.

(2) Where the violation of the provisions of these Regulations is committed by a body corporate, it shall on conviction be liable to a fine not exceeding Five Hundred Thousand (₦500,000.00) and an additional fine of Twenty Thousand Naira (₦20,000.00) for every day the offence subsists.

Interpretation. 31. In these Regulations, unless the context otherwise requires—

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

“authorised officer” means an officer duly authorised by the Agency to enforce the provisions of these Regulations and also includes, a Road Traffic Officer (RTO), Police Officer, FRSC or any other officer to whom the Agency has delegated this power.

“diesel engine” means an engine which works on the compression ignition principle.

“Director for Road Traffic” means a Director in charge of Directorate of Road Traffic Services (DRTS), Vehicle Inspection Office/ Corps Marshall of Federal Road Safety Corps (FRSC).

“Director-General” means the Director-General/Chief Executive Officer of NESREA.

“emission” means the discharge of any pollutant into the atmosphere from any portion of petrol or diesel engine including the exhaust assembly, engine crankcase, ventilation or lubrication system.

“*emission of pollutants*” means the release of substances that causes pollution into the atmosphere ;

“*engine unit*” means a unit comprising of the engine together with all devices essential for its operation and its appropriate intake and exhaust assembly ;

“*engine type*” means a category of engines having similar emission characteristics and which do not differ in such essential aspects as may be designated by the Agency ;

“*fleet operator*” means a company, firm, society or other body of persons, or any person who owns and operates 5 units or more of motor vehicles ;

“*licensed facility*” means a facility or place approved by the Agency which is equipped with the necessary smoke meter and trained personnel for carrying out any smoke test ;

“*motor vehicle*” means—(a) a motor vehicle fitted with a diesel engine ;
(b) a motor vehicle, having two wheels or more, fitted with a petrol engine.

“*new model*” means a motor vehicle equipped with an engine type which is different from the previous model ;

“*new motor vehicle*” means —(a) a motor vehicle imported directly into Nigeria as a completely built-up (“*CBU*”)unit and for the first instant was registered and assigned a registration number by the Directorate for Road Traffic Services Office on or after 28th April, 2011 ;

(b) a motor vehicle imported into Nigeria as used or completely knocked down (“*CKD*”) pack and was subsequently manufactured or assembled and for the first instant was registered and assigned a registration number by the Director for Road Traffic Services ;

“*pm*” means particulate matter- these are particles floating around in the air in various diameter, some of which can not be seen with the naked eye.

“*person*” means an individual, public or private corporation, partnership, association, firm, joint stock company, joint venture, trust, estate, state, municipality, commission, political group, state or federal agency, department or instrumentality, special district, inter-state body or any legal entity, which is recognized by law as the subject of rights and duties.

“*petrol engine*” means an engine which works on the positive-ignition or spark-ignition principle.

“*Ringelmann Smoke Chart*” means a device used for determining whether emissions of smoke are within limits or standards of permissibility.

“*rm*” means - Reference mass - unit of measurement.

"Replaced or overhauled engine means - any vehicle engine whose components part have been replaced or overhauled.

"smoke meter" means—(a) a smoke meter which is constructed to receive a volume of exhaust gas from a motor vehicle within specified pressure and temperature ranges and to measure the density or opacity of its smoke content from 0 to 100 Hartridge Smoke Unit ("HSU") ;

(b) a device constructed to receive a volume of exhaust gas from a motor vehicle within specified pressure and temperature ranges and to measure the complete range of density or opacity of its smoke content in Absolute Units of Light Absorption from clear to total darkness or in such other correlated light absorption units ; or

(c) any other equivalent device which may from time-to-time be prescribed by the Agency as a smoke meter.

Citation.

32. These Regulations may be cited as the National Environmental (Control of Vehicular Emissions from Petrol and Diesel Engines) Regulations, 2011.

SCHEDULES

SCHEDULE I Regulation 3, 3(2), 5(1), 8(1)

EMISSION STANDARD OF POLLUTANTS FOR PETROL ENGINE

The emission of the gaseous pollutant of Carbon Monoxide and the combination of Hydrocarbons and Nitrogen Oxides shall not exceed the following standards :

Reference Mass (rm)(kg)	Mass of CO (g/km)	HC (g/km)	NO _x (g/km)	Combined Emission Mass of Hydrocarbons and Nitrogen Oxides (HC + NO _x) (g/km)
(Class I) rm < 1305kg	2.2	--	--	0.5
(Class II) 1305 < rm <= 1760	4.0	--	--	0.6
(Class III) 1760 < rm	5.0	--	--	0.7

Source : National Automotive Council (NAC)

Key

- < Less than.
- > More than.
- = Equals.

SCHEDULE II

Regulation 3(6)

EMISSION STANDARD OF POLLUTANTS FOR NEW MODELS OF PETROL
ENGINES ON OR AFTER 1ST JANUARY, 2015

1. For a petrol engine with a Gross Vehicle Weight (GVW) of more than 2500kg, the exhaust emission of the gaseous pollutant of Carbon Monoxide and the combination of Hydrocarbons and Nitrogen Oxides shall not exceed the following standards :

Reference Mass (rm)(kg)	Mass of Carbon Monoxide (g/km)	HC (g/km)	NO _x (g/km)	Combined Emission Mass of Hydrocarbons and Nitrogen Oxides (g/km)
(Class I) rm < 1305kg	2.3	0.20	0.15	—
(Class II) 1305 < rm < =1760	4.17	0.25	0.18	—
(Class III) 1760 < rm	5.22	0.29	0.21	—

Source : National Automotive Council (NAC).

Key

< Less than.

> More than.

= Equals.

SCHEDULE III

Regulation 8(1), 10

EMISSION STANDARDS FOR PETROL ENGINE IN USE

	Carbon Monoxide(%)	Hydrocarbons (parts per million)(ppm)
Existing model	4.5	800
New model	3.5	600

Source : National Automotive Council (NAC)

SCHEDULE IV Regulations 5(1) and 9(1)

EMISSION TEST FOR PETROL ENGINE IN USE

1. This test shall be carried out by using a Carbon Monoxide or Hydrocarbon analyser.

2. The test procedures shall be as follows :

(a) Start the engine and allow it to run at an idling speed of (750rpm – 1,000rpm).for 15 seconds.

(b)Accelerate the engine speed for 15 seconds at a speed of (1,500rpm – 2,500rpm).

(c) while the engine idles, insert the sampling probe into the exhaust pipe as deeply as possible but in any case for not less than 300mm ;

(d) wait for at least 20 seconds and take the reading of Carbon Monoxide and Hydrocarbon as given by the analyser.

SCHEDULE V Regulation 9(1)

MOTOR VEHICLES EMISSION TEST CERTIFICATE FOR PETROL ENGINE IN USE

- (1) Serial No:
- (2) Vehicle Registration No :
- (3) Engine Number :
- (4) Chassis Number :
- (5) Vehicle Type :
- (6) Make/Model :
- (7) Date of Test :
- (8) Time of Test :
- (9) Expiry Date :
- (10) Meter used (equipment) :
- (11) Date last calibrated: (equipment)
- (12) RECORD OF GASEOUS TEST :

(i) Carbon Monoxide	: ppm.
(ii) Hydrocarbon	:ppm.

I certify that the above-mentioned motor vehicle has been tested for its gaseous emissions and found to emit:

(i) Carbon Monoxide of.....ppm which *exceeds/
does not exceed the permissible limit.of 3.5% ($10^4 \times 3.5\% = 35,000$ ppm)
for New Model; 4.5% ($10^4 \times 4.5\% = 45,000$ ppm) for Existing Model.

(ii) Hydrocarbon of..... ppm. which *exceeds/
does not exceed the permissible limit of 600ppm for New Model; 800 ppm
for Existing Model.

Issued and Signed by :

Name of Officer :

Designation :

(13) TEST CERTIFICATE ISSUED TO :

Name of Owner/Driver of motor vehicle :

Identity Card No :

of (address) :.....

To whom issued: Owner/ Driver (signature) :

Driving Licence No. :

(Date).....

**Delete where applicable.*

SCHEDULE VI *Regulations 10 and 24*

PROHIBITION ORDER FOR MOTOR VEHICLE EMISSIONS AND SMOKE TEST
(PETROL AND DIESEL)

1. Motor Vehicle Registration No:

2. Engine No.....Chassis No.....

3. Date and Time of Emission Test :

4. Location :

5. Results : Carbon Monoxide =.....ppm Hydrocarbor =..... ppm. HSU.....

6. Reference No. :

7. Date and Time of Previous Emission Test :

8. Location :

Results : Carbon Monoxide =.....ppm Hydrocarbon =..... ppm. HSU.....

Reference No. :

9. In accordance with the provisions of sections 10 and 24 the above-named motor vehicle is prohibited from operation on any road effective from :

..... (time)(date)
To	
..... (time)(date)

10. For the purposes of remedy of defect, servicing and calibration of this vehicle may proceed from : (Place of test) to :only (address of workshop of the person in charge/or workshop of registered owner's choice, provided it is not more than 50km away).

Name of owner /Driver of motor vehicle.....

Identity Card No. :.....

of (address):.....

To whom issued; Owner /driver (signature) :.....

Driving Licence No. :.....Date :.....

Name of Officer :

Designation :.....Signature.....Date.....Stamp

Combined Edition of Hindustan and Nitro Oxide (HCO) (HCO)	PM (Gm)	CO (Gm)	Hydrocarbon (Gm)
0.0	0.08	1.0	0.1
1.0	0.13	1.3	0.15
1.1	0.17	1.7	0.19

SCHEDULE VII *Regulations 17(1) and 19(1)*

EMISSION STANDARD OF POLLUTANTS FOR DIESEL ENGINE

1. Diesel Sulphur limits and vehicle Emission Standards.

Year	Heavy Duty		Year	Light Duty	
	Vehicle	Max. Fuel Sulphur Level (ppm)		Standards	Max. Fuel Sulphur Level (ppm)
2011	rm >1760	1,500	2011	rm <1305	500
2015	rm >1760	500	2015	rm <1305	350

2. In addition to paragraph 1, for a heavy-duty diesel engine for a vehicle with a Gross Vehicle Weight ("GVW") of over 3.5 tonnes, the exhaust emission of the gaseous pollutant of Carbon Monoxide ("CO"), Hydrocarbon ("HC") and Nitrogen Oxides ("NO_x") shall not exceed the following standards :

Mass of Carbon Monoxide (CO) Grammes per kWh	Mass of Hydrocarbons (HC) Grammes per kWh	Mass of Nitrogen Oxides Grammes per kWh	PM Grammes per kWh
4.0	1.1	7.0	0.15

3. For a diesel engine with a Gross Vehicle Weight of not exceeding 3.5 tonnes, in addition to paragraph 1, the emission of the gaseous pollutant of Carbon Monoxide and the combination of Hydrocarbons and Nitrogen Oxides shall not exceed the following standards :

Reference Mass (rm) (kg)	CO (g/km)	PM (g/km)	Combined Emission of Hydrocarbons and Nitrogen Oxides (HC + NO _x) (g/km)
(Class I) < 1305	1.0	0.08	0.7
(Class II) 1305 < rm < 1760	1.25	0.12	1.0
(Class III) 1760 < rm	1.5	0.17	1.2

4. For a diesel engine with gross vehicle weight of not exceeding 2,500kg, the emission of the gaseous pollutant of Carbon Monoxide, the combination of Hydrocarbons and Nitrogen Oxides and particulate matter shall not exceed the following standards :

Mass of Carbon Monoxide (CO) Grammes per kWh	Mass of Hydrocarbons (HC) Grammes per kWh	Mass of Nitrogen Oxides Grammes per kWh	PM Grammes per kWh
1.0	0.7	—	0.08

Source : National Automotive Council (NAC).

EMISSION STANDARD OF POLLUTANTS FOR NEW MODELS OF DIESEL ENGINES ON OR
AFTER 1ST JANUARY, 2015

1. For a diesel engine having a total mass exceeding 3.5 tonnes, the emission of gaseous pollutants of Carbon Monoxide, Hydrocarbons, Oxides of Nitrogen and Particulates must not exceed the following standards :

<i>Mass of Carbon Monoxide(CO) Grammes per kWh</i>	<i>1. Mass of Hydrocarbons(HC) (HC)Grammes per kWh</i>	<i>Mass of Oxides of Nitrogen(NOx) Grammes per kWh</i>	<i>Mass of Particulates (PM) Grammes per kWh</i>
2.1	0.66	5.0	0.10/0.13

2. For a diesel engine having a total mass not exceeding 3.5 tonnes, the emission of gaseous pollutants of Carbon Monoxide, the combination of Hydrocarbons and Oxides of Nitrogen and Particulates shall not exceed the following standards :

<i>Reference Mass (rm) (kg)</i>	<i>CO (g/km)</i>	<i>PM (g/km)</i>	<i>NO_x (g/km)</i>	<i>Combined Emission of Hydrocarbons and Nitrogen Oxides (HC + NO_x) (g/km)</i>
(Class I) < 1305	0.64	0.05	0.5	0.56
(Class II) <1305 < rm <=1760	0.80	0.07	0.65	0.72
(Class III) 1760 < rm	0.95	0.10	0.78	0.86

3. Heavy Duty (HD) Diesel Engines.

4.0	0.25	7.0	HC = 1.1	-
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4. Large Goods Vehicles

4.0	0.15	1.1	HC = 7.0	-
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Source: National Automotive Council (NAC).

SCHEDULE IX

Regulation 23 (2)

FREE ACCELERATION TEST

1. The free acceleration test shall be carried out with a smoke meter which shall be capable of indicating the full range of smoke density during the accelerating and decelerating cycle.

2. The smoke meter shall have been regularly serviced and maintained in accordance with the manufacturer's instructions. It shall have undergone tests and calibration, not more than 12 months before its use, by a competent authority appointed by the Agency, and has been issued a certificate of fitness with a record of the date to indicate that as a result of those tests and calibration, the smoke meter was found to be in good working order.

SCHEDULE X

Regulation 23 (2)

MOTOR VEHICLE EMISSION TEST CERTIFICATE FOR SMOKE EMISSION

- (1) Serial No. :
- (2) Motor Vehicle Registration No. :
- (3) Engine Number
- (4) Chassis number
- (5) Make/Model:
- (6) Vehicle Type :
- (7) Date of Test :
- (8) Expiry Date.....
- (9) Time of Test :
- (10) Place of Test :
- (11) RECORD OF EMISSION TEST :

1st :	HSU
2nd:	HSU
Mean :	HSU

- (12) Meter used : (equipment)
- (13) Serial No. :
- (14) Certificate of Fitness No :

(15) I certify that the above-mentioned motor vehicle has been tested for smoke emission capability and found to emit a smoke density ofHSU which *exceeds / does not exceed the smoke limit of HSU permitted under regulation 22 (1) of the National Environmental (Control of Vehicular Emission from Petrol and Diesel Engines) Regulations 2010.

Issued and Signed by :

Name of Officer :

Designation :

(16) Test Certificate Issued to :

Name of Owner/Driver of motor vehicle :

Driving Licence No : Expiry Date.....

of (address) :

To whom issued : Owner/Driver (Signature)

**Delete where inapplicable.*

SCHEDULE XI

Regulation 19(4)

MOTOR VEHICLES EMISSION TEST CERTIFICATE FOR DIESEL ENGINE IN USE

- (1) Serial No:
- (2) Vehicle Registration No :
- (3) Engine Number :
- (4) Chassis Number :
- (5) Vehicle Type :
- (6) Make/Model :
- (7) Date of Test :
- (8) Time of Test :
- (9) Expiry Date :
- (10) Meter used (equipment) :
- (11) Date last calibrated: (equipment)
- (12) RECORD OF GASEOUS TEST :

(i) Carbon Monoxide	:..... glkm.
(ii) Hydrocarbon	:.....glkm
(iii) Particulate Matter	:.....glkm

I certify that the above-mentioned motor vehicle has been tested for its gaseous emissions and found to emit :

(i) Carbon Monoxide of.....glkm which *exceeds/does not exceed the permissible limit.

(ii) Hydrocarbon of..... glkm. which *exceeds/does not exceed the permissible limit.

(iii) Particulate Matter of glkm. which *exceeds/does not exceed the permissible limit.

Issued and Signed by :

Name of Officer :

Designation :

(13) TEST CERTIFICATE ISSUED TO :

Name of Owner/Driver of motor vehicle :

Identity Card No :

of (address) :.....

To whom issued: Owner/ Driver (signature) :

Driving Licence No. :

(Date).....

**Delete where applicable.*

MADE at Abuja this 28th day of April, 2011.

MR JOHN ODEY

Honourable Minister,

Federal Ministry of Environment