



SEP 27 2010

DENR ADMINISTRATIVE ORDER
NO. 2010-24

Subject: Revised Emission Limits/Standards for Motorcycles/Tricycles and Mopeds

Pursuant to Section 25 of the Republic Act 8749 otherwise known as the "Philippine Clean Air Act (PCAA) of 1999", Part IX, Rule XXXIII, Section 1 of the DENR Administrative Order (DAO) No. 2000-81 also known as the "Implementing Rules and Regulations of the PCAA", and DAO 2003-25 the following the revised emission limits/standards for motorcycles/tricycles and mopeds are hereby promulgated.

Section 1. Basic Policy

1. It is the policy of the State to protect and advance the right of people to a balanced and healthful ecology in accord with the rhythm and harmony of nature;
2. It is also the policy of the State to attain and maintain a balance between development and environmental protection; and
3. It is the policy of the State to maintain a quality of air that protects human health and welfare.

Sec. 2. Scope and Coverage. These emission limits and standards shall apply to all new and in-use motorcycles/tricycles and mopeds for purposes of registration.

Sec. 3. Objectives.

- 1) To revise the exhaust emission standards and to update the emission limits for in-use and new motorcycles/tricycles and mopeds, respectively, to achieve substantial improvement in air quality for the health, safety and welfare of the general public; and
- 2) To give a lead time to manufacturers of new motorcycles/tricycles and mopeds for purposes of planning/design.

Sec. 4. Definition of Terms. The following terms as used in this Order shall be defined as follows:

- 1) Certificate of Conformity - the Certificate issued by the DENR to a vehicle manufacturer/assembler or importer certifying that a particular new vehicle or vehicle type meets the requirements provided under RA 8749 and its Implementing Rules and Regulations (IRR);
- 2) Conformity of Production -the verification of the production units' conformity with the requirements of the PCAA and its IRR.
- 3) Emission -any measurable air contaminant, pollutant, gas STREAM, or unwanted sound from known source which passed into the atmosphere;
- 4) In-use motorcycle/tricycle/moped -any two- or three-wheeled motor vehicle duly registered with the Land Transportation Office (LTO);
- 5) Moped (L1) -a two-wheeled vehicle with an engine cylinder capacity in the case of a thermic engine not exceeding 50 cubic centimeter and whatever the means of propulsion a maximum design speed not exceeding 50 km/h.;



- 6) Motorcycle (L3) –a two-wheeled vehicle with an engine cylinder capacity in the case of a thermic engine exceeding 50 cubic centimeter or whatever the means of propulsion a maximum design speed exceeding 50 km/h.;
- 7) Motorcycle (L4) –a vehicle with three wheels asymmetrically arranged in relation to the longitudinal media plane with an engine cylinder capacity in the case of a thermic engine exceeding 50 cubic centimeter or whatever the means of propulsion a maximum design speed exceeding 50 km/h. (motorcycles with side cars or tricycles);
- 8) Motor Vehicle –any vehicle propelled by a gasoline or diesel engine or by any other than human or animal power, constructed and operated principally for the conveyance of persons or the transportation of property or goods in a public highway or street open to public use;
- 9) New motorcycle/moped –any motor vehicle constructed entirely from new parts that has never been sold or registered with the LTO or with appropriate agency or authority, and operated on the highways of the Philippines, any foreign state or country;
- 10) Type Approval –the official ratification of the compliance of a vehicle type with applicable national or international regulations;
- 11) Vehicle Type –a category of power-driven vehicles which do not differ in such essentials as reference mass or weight, engine type, number of cylinders, body configuration, manner of transmission, fuel used and similar characteristics.

Sec. 5. Emission Limits for Type Approval of New Motorcycle and Moped

As a condition to issuance of the Certificate of Conformity (COC), all new motorcycle and moped types to be introduced in the market two (2) years after the approval of this Order shall comply with Tables 1, 1A, 2 and 3. [Ref: European Economic Community (EEC) Directive 97/24/EC(European Community)]

Table 1
Emission Limits for Motorcycle (L3)
Level 1 with effectivity two (2) years after the approval date of this Administrative Order

Class (cc)	Emission Limits (g/km) for Type Approval and Conformity of Production		
	Carbon Monoxide (CO)	Hydrocarbons (HC)	Oxides of Nitrogen (NOx)
<150	5.5	1.2	0.3
> 150	5.5	1.0	0.3

Table 1A
Emission Limits for Motorcycle/Tricycle (L4)

Class	Emission Limits (g/km) for Type Approval and Conformity of Production		
	Carbon Monoxide (CO)	Hydrocarbons (HC)	Oxides of Nitrogen (NOx)
All	7.0	1.5	0.4



Table 2
Emission Limits for Motorcycle (L3)
Level 2 with effectivity three years after effectivity of Level 1

Class (cc)	Emission Limits (g/km)		
	Carbon Monoxide (CO)	Hydrocarbons (HC)	Oxides of Nitrogen (NOx)
<150 (UDC cold)[1]	2.0	0.8	0.15
> 150 (UDC + EUD cold) [2]	2.0	0.3	0.15

[1] Test cycle: ECE* R40 (emission measured for all six modes – sampling starts at T=0)

[2] Test cycle: ECE* R40 + EUDC** (emissions measured from all modes – sampling starts at T=0, with the maximum speed of 120 km/h)

*Economic Commission for Europe

**Extra Urban Driving Cycle

Table 3
Emission Limits for Moped (L1)

Effectivity	Emission Limits (g/km) for Type Approval and Conformity of Production	
	Carbon Monoxide (CO)	Hydrocarbons + Oxides of Nitrogen (HC + NOx)
Level 1 – Two (2) years after the approval of this DAO	6 (1)	3 (1)
Level 2 – Three (3) years after the implementation of Level 1	1 (2)	1.2

(1) The limit values for the masses of CO and HC+NOx are multiplied by a factor of 2 in the case of three-wheel mopeds;

(2) The limit for the mass of CO must be 3.5 g/km in case of three-wheel mopeds

The compliance of the above emission limits shall be determined using the test procedures laid down in European Community Directive ECE 40 as evidenced by a COC issued by the DENR.

Sec. 6. Issuance of Certificate of Conformity (COC). The application for a COC shall be submitted to the Environmental Management Bureau (EMB) by the motor vehicle manufacturer, assembler, importer or their duly authorized representatives. It shall be accompanied by the following particulars in triplicate:

- a. Complete and detailed description of motor vehicle and the engine;
- b. Description of the emission control system installed in the motor vehicle;
- c. Details of the fuel feed system;
- d. Vehicle Type Approval System test result by DOTC/LTO (while the DOTC/LTO is developing inspection capability of the motor vehicle type approval system test, the previous emission test results of pre-production engine vehicle type duly certified by the manufacturer of subject motorcycle/tricycle and moped shall be valid and sufficient; and
- e. Other particulars which may be required by DENR.



Sec.7. Validity of COC. For purposes of vehicle registration, the COC issued as a compliance with the above-mentioned emission limits shall be valid for six (6) years from the date of issue unless sooner revoked or suspended. In case of suspension, the 6-year validity period shall not be extended by the period of suspension. However, for those COCs issued under ECE Regulation 40.01 type approval standards shall be valid until December 31, 2013.

Sec. 8. Emission Standards for In-Use Motorcycle/Tricycle and Moped. All in-use motorcycles/tricycles and mopeds registered on the dates indicated below shall comply with the following emission standards:

**Table 5
Emission Standards for In-Use Motorcycle/Tricycle and Moped**

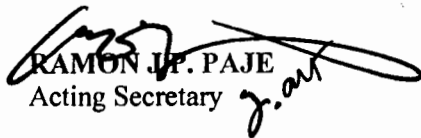
Vehicle Registration Date	Emission Standards		
	Carbon Monoxide (% by vol.)	Hydrocarbon (ppm)	White smoke (% opacity)
Registered for the first time prior to January 1, 2003	6.0	6,500	30
Registered for the first time from January 1, 2003 up to December 31, 2011	4.5	6,500	30
Registered for the first time on or after January 1, 2012	3.5	4,500	30

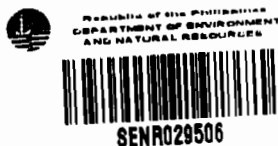
Sec. 9. Test Procedures for Measurement of Exhaust Emissions for In-use Motorcycle/Tricycle and Moped

Parameter	Reference
Hydrocarbon and Carbon Monoxide	At idle per Annex C of DENR Administrative Order 2000-81
White smoke	Opacity at ¾ maximum RPM or based on manufacturer's manual. Test procedure based on free acceleration.

Sec. 10. Separability Clause. This Order supersedes DENR Adm. Or. No. 2003-25. All other orders, circulars and instructions inconsistent herewith are hereby repealed or amended accordingly.

Sec. 11. Effectivity. This Order shall take effect fifteen (15) days from its publication in a newspaper of general circulation and submission to the Office of the National Administrative Registry (ONAR).


RAMON J.P. PAJE
 Acting Secretary



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 October 1, 2010
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 October 5, 2010