

DENR ADMINISTRATIVE ORDER NO. 2000 - 81
Series of 2000

Subject : IMPLEMENTING RULES AND REGULATIONS FOR RA 8749

Pursuant to the provisions of Section 51 of Republic Act No. 8749, otherwise known as the “Philippine Clean Air Act of 1999,” and by virtue of Executive Order No. 192, Series of 1987, the Department of Environment and Natural Resources hereby adopts and promulgates the following rules and regulations:

PART I GENERAL PROVISIONS

RULE I PRELIMINARY PROVISIONS

Section 1. Title

These Rules shall be known and cited as the “Implementing Rules and Regulations of the Philippine Clean Air Act of 1999.”

Section 2. Purpose

The purpose of these Rules is to provide guidelines on the operationalization of the Philippine Clean Air Act of 1999.

Section 3. Scope

These Rules shall lay down the powers and functions of the Department of Environment and Natural Resources, the Department of Transportation and Communication, the Department of Trade and Industry, the Department of Energy and all other concerned agencies, the rights and obligations of stakeholders and the rights and duties of the people with respect to the Air Quality Management and Control Program.

Section 4. Construction

These Implementing Rules and Regulations shall be liberally construed to carry out the national policy of balancing development and environmental protection through the pursuance of the framework of sustainable development. Sustainable development shall refer to development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

RULE II DECLARATION OF STATE POLICY

Section 1. Declaration of Policy

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.

It is also the policy of the State to attain and maintain a balance between development and environmental protection.

Finally, it is the policy of the State to maintain a quality of air that protects human health and welfare.

RULE III AIR QUALITY PRINCIPLES

Section 1. Air Quality Principles

- a) The State shall promote and protect the global environment to attain sustainable development while recognizing the primary responsibility of local government units to deal with environmental problems.
- b) The State recognizes that the responsibility of cleaning the habitat and environment is primarily area-based and that air quality management and control is most effective at the level of airsheds.
- c) The State recognizes the principle that “polluters must pay” and the important role of economic instruments in air quality management and control.
- d) The State recognizes that a clean and healthy environment is for the good of all and should therefore be a concern of all.

RULE IV AIR QUALITY POLICIES

Section 1. Air Quality Policies

It is the policy of the State to:

- a) Formulate a comprehensive national program of air pollution management that shall be implemented by the government through proper delegation and effective coordination of functions and activities;
- b) Encourage cooperation and self-regulation among citizens and industries through the application of market-based instruments;
- c) Focus primarily on pollution prevention rather than on control and provide for a comprehensive management program for air pollution, such as the promotion of non-motorized transport, emphasis on public transport, and travel demand measures;
- d) Promote public information and education and to encourage the participation of an informed and active public in air quality planning and monitoring; and
- e) Formulate and enforce a system of accountability for short and long-term adverse environmental impact of a project, program or activity. This shall include the setting up of a funding or guarantee mechanism for clean-up and environmental rehabilitation and compensation for personal damages.

RULE V RIGHTS

Section 1. Recognition of Rights

Pursuant to the above-declared principles, the following rights of citizens are hereby sought to be recognized and the State shall seek to guarantee their enjoyment:

- a) The right to breathe clean air;
- b) The right to utilize and enjoy all natural resources according to the principles of sustainable development;
- c) The right to participate in the formulation, planning, implementation and monitoring of environmental policies and programs and in the decision-making process;

- d) The right to participate in the decision-making process concerning development policies, plans and programs projects or activities that may have adverse impact on the environment and public health;
- e) The right to be informed of the nature and extent of the potential hazard of any activity, undertaking or project and to be served timely notice of any significant rise in the level of pollution and the accidental or deliberate release into the atmosphere of harmful or hazardous substances;
- f) The right of access to public records which a citizen may need to exercise his or her rights effectively under this Act;
- g) The right to bring action in court or quasi-judicial bodies to enjoin all activities in violation of environmental laws and regulations, to compel the rehabilitation and clean-up of affected area, and to seek the imposition of penal sanctions against violators of environmental laws; and
- h) The right to bring action in court for compensation of personal damages resulting from the adverse environmental and public health impact of a project or activity.

RULE VI DEFINITION OF TERMS

Section 1. Definitions

The following terms as used in these Implementing Rules and Regulations shall be defined as follows:

“Act” refers to Republic Act No. 8749, otherwise known as the “Philippine Clean Air Act of 1999”;

“Air pollutant” means any matter found in the atmosphere other than oxygen, nitrogen, water vapor, carbon dioxide, and the inert gases all in their natural or normal concentrations, that is detrimental to health or the environment, which includes but not limited to smoke, dust, soot, cinder, fly ash, solid particles of any kind, gases, fumes, chemical mists, contaminated steam and radioactive substances;

“Air pollution” means any alteration of the physical, chemical and biological properties of the atmosphere, or any discharge thereto of any liquid, gaseous or solid substances that will or is likely to create or to render the air resources of the country harmful, detrimental, or injurious to public health, safety or welfare or which will adversely affect their utilization for domestic, commercial, industrial, agricultural, recreational, or other legitimate purposes;

“Air quality performance rating” refers to a rating system to be developed by the Department through the Bureau. The air quality performance ratings will be grouped by industry, and will compare emissions data for industrial sources to the relevant National Ambient Air Quality Standards and the relevant National Emissions Standards for Source Specific Air Pollutants;

“Airshed” refers to areas with common weather or meteorological conditions and sources of air pollution which affect the interchange and diffusion of pollution in the surrounding atmosphere.

“Ambient air quality” refers to the atmosphere’s average purity in a broad area as distinguished from discharge measurements taken at the source of pollution or the present characteristic or nature of the surrounding atmosphere;

“Ambient air quality guideline values” refers to the concentration of air over specified periods classified as short-term and/or long-term which are intended to serve as goals or objectives for the

protection of health and/or public welfare. These values shall be used for air quality management purposes such as determining time trends, evaluating stages of deterioration or enhancement of the air quality. In general, used as a basis for taking positive action in preventing, controlling, or abating health impacts from air pollution;

“Ambient air quality standard” means the concentration of an air pollutant which, in order to protect public health and/or public welfare, shall not be exceeded in the breathing zone, at any time. Standards are enforceable and must be complied with by the owner or person in-charge of an industrial operation, process or trade;

“Authority to Construct” refers to the legal authorization granted by the Bureau to install a new source or modify an existing source.

“Best Available Control Technology” refers to approaches, techniques or equipment which when used, result in lower air emissions but in a cost-effective manner. BACT results in lower emission rates than those specified in the National Emission Standards for Source Specific Air Pollutants

“Bio-medical waste” refers to pathological wastes, pharmaceutical wastes, chemical wastes and sharps defined as follows:

“Pathological wastes” include all human tissue (whether infected or not) such as limbs, organs, fetuses and body fluid; animal carcasses and tissue, together with all related swabs and dressings;

“Pharmaceutical wastes” include pharmaceutical products; drugs and chemicals that have been returned from wards; have been spilled or soiled; are expired or contaminated; or are to be discarded for any reason;

“Chemical wastes” include discarded solid, liquid or gaseous chemicals from laboratories or other sources such as diagnostic work, environmental work, cleaning, housekeeping and disinfecting procedures;

“Sharps” include needles, syringes, scalpels, blades and any other items that could cut or puncture;

“Bureau” refers to the Central Office of the Environmental Management Bureau and its Regional Offices under the Department;

“Cease and Desist Order” refers to the ex parte Order directing the discontinuance of the operation resulting in the emission or discharge of pollutants exceeding the emission standards or whenever such emission or discharge constitutes imminent threat to human, animal or plant life, public health or public safety. Non-compliance with an undertaking or agreement submitted to the Department shall likewise be a ground for issuance of a CDO;

“Certificate of Compliance to Emission Standard” refers to a certificate issued by DOTC to a rebuilt vehicle(s) or second hand vehicle(s) imported into the country based on an inspection by the DOTC MVIS in accordance with the emission standards of these Implementing Rules and Regulations, and as a requirement for initial registration of the subject vehicle(s).

“Certificate of Conformity” refers to the certificate issued by the Department to a vehicle manufacturer/assembler or importer certifying that a particular new vehicle or vehicle type meets the requirements provided under this Act and its Implementing Rules and Regulations;

“Certificate of Emission Compliance” refers to a certificate issued by the DOTC or its authorized emission testing center(s) for a vehicle apprehended during roadside inspection, certifying that the particular vehicle meets the emission requirements of these Implementing Rules and Regulations, and which shall have no validity period.

“Completely Built-up Unit (CBU)” refers to vehicles imported into the country either brand new or used and ready for operation;

“Compliance Plan” refers to a plan submitted to the Bureau for approval which details how an existing stationary air emissions source will be brought into compliance. The owner of the facility must submit the plan within two months of notification of non-compliance by the Bureau. The plan must include a schedule that will be enforceable.

“Compression Ignition Engine” means an internal combustion engine in which atomized fuel temperature is raised through compression, resulting in ignition, e.g. diesel engines;

“Completely Knocked-Down” (CKD) refers to new parts and components and/or engines that are imported in disassembled condition for purposes of assembly. It may include not only parts and components but also sub-assemblies and assemblies, e.g. engines, transmissions, axle assemblies, chassis and body assemblies;

“Conformity of Production” refers to the verification of the production units’ conformity with the requirements of the Clean Air Act and these Implementing Rules and Regulations.

“Continuous Emission Monitoring System” means the total equipment, required under these Implementing Rules and Regulations or as directed by the Bureau, used to sample and condition (if applicable), analyze, and provide a permanent record of emissions or process parameters. Such record shall be the basis of the firm’s compliance with the emission standards. Further, it may be an approved monitoring system for continuously measuring the emission of a pollutant from an affected source or facility and as such, may be used in computing annual emission fees;

“Criteria Pollutants” are air pollutants for which National Ambient Air Quality Guideline Values have been established;

“Department” refers to the Department of Environment and Natural Resources;

“Detoxification process” refers to the process of diminishing or removing the poisonous quality of any substance using chelating agents to prevent or reverse toxicity particularly for those substances (e.g., heavy metals) that are cumulative or persistent in the body;

“Director” means the Director of the Bureau;

“Eco-profile” shall refer to the geographic-based instrument for planners and decision-makers which presents an evaluation of the environmental quality and carrying capacity of an area. It is the result of the integration of various primary and secondary data and information on natural resources and anthropogenic activities on the land which are evaluated by various environmental risk assessment and forecasting methodologies. This will enable the Department to anticipate the type of development control that is necessary in the planning area;

“Emission” means any measurable air contaminant, pollutant, gas stream or unwanted sound from a known source which is passed into the atmosphere;

“Emission averaging” is a technique whereby a facility having more than one source of a given pollutant may, under certain circumstances and with Bureau approval, reduce emissions from one or more sources sufficiently so that the average of all the facility's source emissions is equal to or below the applicable standard for a particular pollutant. Emission averaging is computed on an annual potential ton per year basis.

“Emission Charge” refers to a fee corresponding to the quality, quantity, volume and toxicity of emissions from an industrial or mobile source;

“Emission Credits” are generated by sources that reduce their annual mass emissions below the equivalent minimum regulatory level by either installing and operating pollution control devices or by using other Bureau approved methods. The equivalent minimum regulatory level is based upon the lowest annual emissions in tons that results when the source operates at its permitted emission rate for its typical annual operating hours. Sources that are subject to different allowable emission rates, such as National Emission Standards and Ambient Air Quality Standards, must estimate the minimum regulatory level on the standard that provides the lowest annual allowable tonnage. An emission credit is equal to one ton of an air pollutant;

“Emission factor” refers to a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. Emission factors may be used to calculate emission fees, as indicated in Rule XVI, Section 5. These factors are usually expressed as the weight of pollutant divided by a unit weight, volume, distance, or duration of the activity emitting the pollutant (e. g., kilograms of particulate emitted per megagram of coal burned). Such factors facilitate estimation of emissions from various sources of air pollution. In most cases, these factors are simply averages of all available data of acceptable quality. The general equation for emission estimation is: $E = A \times EF \times (1-ER/100)$ where: E = emissions; A = activity rate; EF = emission factor; and ER= overall emission reduction efficiency. %ER is further defined as the product of the control device destruction or removal efficiency and the capture efficiency of the control system. When estimating emissions for a long time period (e. g., one year), both the device and the capture efficiency terms should account for upset periods as well as routine operations;

“Emission offset” refers to an emission reduction credit that compensates for an emission increase of an affected pollutant from a new or modified source.

“Emissions Trading” refers to a market-based approach to air pollution control which allows for transferring emission credits between different facilities for use as a form of regulatory compliance;

“Environmental Management Systems” that part of the overall, management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy.

“Environmental Management Plan/Program” this is the plan or program for achieving the environmental objectives and targets of a project or undertaking. It includes the designation of responsibility for achieving objectives and targets and the means and time-frame by which they are to be achieved. It details the prevention, mitigation, compensation, contingency and monitoring measures to enhance positive impacts and minimize negative impacts of a project or undertaking.

“Environmental Management Systems Audit” a systematic and documented verification process of objectively obtaining and evaluating evidence to determine whether an organization’s EMS

conforms to the EMS audit criteria set by the organization and for communication of the results of this process to management.

“Episode” means a series of short-term air pollution events that significantly alter the ambient air quality of an affected area;

“Equivalent Method” refers to any technique or procedure for sampling and/or analyzing an air pollutant which has been approved by the Bureau and demonstrated to have a consistent and quantitatively known relationship with the designated standard method.;

“Existing Source” means any source already erected, installed, and in operation; or any source for which construction has been offered for bidding or actual construction has commenced prior to the date of effectivity of these Implementing Rules and Regulations. Any existing source which in the opinion of the Department has undergone a modification after the date of adoption of an applicable rule and regulation, shall be reclassified and considered a new source;

“Governing Board” refers to a multi-sectoral body created under Section 9 of the Act to effectively carry out and implement the air quality action plan of an airshed;

“Greenhouse gases” refers to those gases such as carbon dioxide, methane, and oxides of nitrogen, chlorofluoro-carbons, and the others that can potentially or can reasonably be expected to induce global warming;

“Gross Vehicle Mass or Weight” means the sum of the vehicle mass or weight and the allowable maximum payload as declared by the vehicle manufacturer;

“Guideline” means an official recommendation or guidance on the protection of human beings or receptors in the environment from the adverse effects of air pollutants;

“Hazardous substances” refers to those substances which present either: (1) short-term acute hazards such as acute toxicity by ingestion, inhalation, or skin absorption, corrosivity or other skin or eye contact hazard or the risk of fire explosion; or (2) long-term toxicity upon repeated exposure, including carcinogenicity (which in some cases may result in acute exposure but with a long latent period), resistance to the detoxification process, or the potential to pollute underground or surface waters, whether shipped into the country or generated locally;

“Hazardous wastes” are hazardous substances that are without any safe commercial, industrial, agricultural or economic usage and are shipped, transported or brought from the country of origin for dumping or disposal into or in transit through any part of the territory of the Philippines. Hazardous wastes shall also refer to hazardous substances that are by-products, side-products, process residues, spent reaction media, contaminated plant or equipment or other substances from manufacturing operations, and as consumer discards of manufactured products.

“Imported Used/Second-Hand Vehicle” means any used or second-hand motor vehicle imported and registered in the country of origin;

“Incineration” means the burning of municipal, bio-medical and hazardous wastes which process emits toxic and poisonous fumes;

“Infectious waste” refers to soiled surgical dressings, swabs and other contaminated waste from treatment areas; materials which have been in contact with persons or animals suffering from infectious diseases; cultures and stocks of infectious agents from laboratory work; dialysis equipment; apparatus and disposable gowns, aprons, gloves, towels, etc; waste from dialysis

treatment area; waste from patients in isolation wards; all materials which may contain pathogens in sufficient concentration or quality that exposure to could result in disease;

“Installation” means any structure, equipment, facility or appurtenances thereto, operation of which may be a source of pollution or a means to control the same;

“In-Use Vehicle” means a motor vehicle duly registered with the LTO;

“Light Duty Vehicles” are motor vehicles whose gross vehicle weight is equal to or less than 3,500 kgs, in accordance with the definition contained in Philippine National Standards (PNS) 1891. This also refers to “Light Commercial Vehicles;”

“Lowest Achievable Emission Rate” refers to any technology or combination of technologies and process controls that result in the lowest possible emissions of a given air pollutant. Cost is not a consideration in determining applicable LAER for a given source; however, technical feasibility is. The technology must be reasonably demonstrated to be appropriate and reliable for each application;

“Mandatory Inspection” refers to the interval between testing and the tests performed, as partial pre-condition for the renewal of registration of in-use motor vehicles;

“Manufacturer or Assembler” means any entity or person who manufactures or assembles motor vehicles, for eventual use in the Philippines;

“Medical waste” means any solid waste that is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals;

“Medium/Heavy Duty Vehicles” refers to motor vehicles whose gross vehicle weight is greater than 3,500 kgs, in accordance with the definition contained in PNS 1891;

“Mobile source” means any vehicle/machine propelled by or through oxidation or reduction reactions, including combustion of carbon-based or other fuel, constructed and operated principally for the conveyance of persons or the transportation of property or goods, that emit air pollutants as a reaction product;

“Modification” means any physical change or alteration in the method of operation of an existing source which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that source, or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously permitted. The following are exempted from the said definition:

Routine maintenance, repair and replacement shall not be considered physical changes if not intended to extend the useful life beyond the equipment manufacturer’s design;

An increase in the production rate provided the facility is permitted to operate at the increased level and such increase does not exceed the designed capacity of the existing source; and

An increase in hours of operation provided that the facility is permitted to operate for the increase in hours.

“Motorcycle” refers to any two-wheeled motor vehicle with at least one headlight, taillight and stoplight, and one or more saddle seats. For purposes of these rules, motorcycles shall include motorcycles with attached cars also known as “tricycles”.

“Motor Vehicle” means any vehicle propelled by a gasoline or diesel engine or by any means other than human or animal power constructed and operated principally for the conveyance of persons or the transportation of goods;

“Motor Vehicle Registration” refers to the official recording of a motor vehicle by the Land Transportation Office (LTO) subject to the conformance of the vehicle to the safety and emission standards provided under Section 21 of the Act, including the pre-evaluation of the documents/requirements pursuant to Section 5 of Republic Act 4136, as amended, otherwise known as the Land Transportation Code;

“Municipal waste” refers to the waste materials generated from communities within a specific locality;

“National Ambient Air Quality Guideline Values” are limits on criteria air pollutant concentrations published by the Department, intended for the protection of public health, safety, and general welfare;

“National Motor Vehicle Inspection and Maintenance Program” refers to the set of projects and other activities and efforts all designed to reduce the damaging impact of air pollution and unsafe vehicles on health and safety of the people, through adoption of standards for emission and vehicle safety, and a series of measures to ensure compliance with them;

“New Motor Vehicle” means a vehicle constructed entirely from new parts that has never been sold or registered with the DOTC or with the appropriate agency or authority, and operated on the highways of the Philippines, any foreign state or country;

“New Source” means any plant, equipment, or installation in any trade, business or establishment which generates, emits or disposes air emissions into the atmosphere and constructed after the date of effectivity of these Implementing Rules and Regulations. This includes any existing stationary source transferred or moved to a different location or site for the purpose of installation, operation or use after such date;

“Normal Cubic Meter” (NCM) means the volume of dry gas which occupies a cubic meter measured at twenty five degrees Celsius (25°) at an absolute pressure equivalent to seven hundred sixty (760) mm Hg;

“Octane Rating” or the “Anti-Knock Index” (AKI) means the rating of the anti-knock characteristics of a grade or type of automotive gasoline as determined by dividing by two (2) the sum of the Research Octane Number (RON), plus the Motor Octane Number (MON). The octane requirement, with respect to automotive gasoline for use in a motor vehicle or a class thereof, whether imported, manufactured, or assembled by a manufacturer, refers to the minimum octane rating or such automotive gasoline which such manufacturer recommends for the efficient operation of such motor vehicle, or substantial portion of such class, without knocking;

“Opacity” means the amount of light obscured by particle pollution in the atmosphere;

“Operator” means a person or entity that manages a transport business but not necessarily a vehicle owner;

“Owner” means the person or entity identified as the motor vehicle owner in the motor vehicle registration or by a valid deed of sale;

“Ozone Depleting Substances” (ODS) refers to those substances that significantly deplete or otherwise modify the ozone layer in a manner that is likely to result in adverse effects on human health and the environment such as, but not limited to, chlorofluorocarbons, halons, and the like;

“Particulate Matter” or “Suspended Particulates” means any material, other than uncombined water, which exists in a finely divided form as a liquid or solid;

“Passenger Car” refers to a four-wheeled motor vehicle used for the carriage of not more than six passengers including the driver and having a gross vehicle mass not exceeding 2,500 kg in accordance with the definition contained in PNS 1891.

“Permit” refers to the legal authorization to engage in or conduct any construction, operation, modification or expansion of any installation, operation or activity which will be reasonably expected to be a source of pollution;

“Permittee” refers to the owner, operator or entity who owns, leases, operates, controls or supervises any source, facility, machine or equipment;

“Permit to Operate” refers to the legal authorization granted by the Bureau to operate or maintain any installation for a specified period of time;

“Permit Condition” refers to a statement or stipulation issued with a permit, compliance with which is necessary for continued validity of the permit;

“Persistent Organic Pollutants” (POPs) means organic compounds that persist in the environment, bio-accumulate through the food web, and pose a risk of causing adverse effects to human health and the environment. These compounds resist photolytic, chemical and biological degradation, and include but are not limited to dioxin, furan, Polychlorinated Biphenyls (PCBs), organochlorine pesticides, such as aldrin, dieldrin, DDT, hexachlorobenzene, lindane, toxaphene and chlordane;

“Poisonous and toxic fumes” means any emission and fumes which do not conform to internationally-accepted standards, including but not limited to, World Health Organization (WHO) guideline values;

“Pollution control device” refers to any device or apparatus that is used to prevent, control, or abate the pollution of air caused by emissions from identified sources at levels within the air pollution standards established by the Department;

“Pollution control technology” refers to pollution control devices, production processes, fuel combustion processes or other means that effectively prevent or reduce emissions or effluents;

“Potential to emit” refers to the annual mass emissions that would result from a source when operating 8,760 hours per year. Actual emissions are based on the actual hours of operation per year;

“Rebuilt Motor Vehicle” means a locally assembled vehicle using new or used engine, major parts or components;

“Reference Mass or Weight” means the mass or weight of the vehicle in running order with a full fuel tank and including the set of tools and spare wheel, plus 100 kilograms but does not include the mass or weight of the passengers and driver;

“Regional Director” means the Regional Director of any Regional Office;

“Regional Office” means one of the Regional Offices of the Bureau;

“Ringelmann Chart” means the chart described in the U.S. Bureau of Mines, Information Circular No. 8333 and No. 7718, and used for measuring smoke opacity;

“Siga” means the traditional small scale method of burning of wastes resulting from cleaning the backyard such as fallen leaves, twigs, stems, and other similar matter from plants and trees in the backyard where the burning is done;

“Smoke Opacity Meter (or Opacimeter)” means an instrument which determines the smoke opacity in exhaust gases emitted by the engine system.

“Spark-Ignition Engine” means an internal combustion engine in which the air/fuel mixture is ignited by a spark plug, e.g., a gasoline engine;

“Standard of performance” means a standard for emission of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction, taking into account the cost of achieving such reduction and any non-air quality health and environment impact and energy requirement as determined by the Department through the Bureau;

“Stationary source” refers to any building or fixed structure, facility or installation that emits or may emit any air pollutant;

“Type Approval” refers to the official ratification of the compliance of a vehicle type with applicable national or international regulations;

“Useful Life of Vehicles and Engines” refers to the period of time a vehicle and/or engine can be used, and meet standards of road worthiness and engine emissions;

“Vehicle Type” means 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;

PART II NATIONAL AMBIENT AIR QUALITY GUIDELINES

RULE VII NATIONAL AIR QUALITY

Section 1. National Ambient Air Quality Guideline Values

- (a) Pursuant to Section 12 of Republic Act 8749, the initial set of National Ambient Air Quality Guideline Values necessary to protect public health and safety and general welfare shall be as follows:

**Table 1
National Ambient Air Quality Guideline Values**

Pollutants	Short Term ^a			Long Term ^b		
	µg/NCM	ppm	Averaging Time	µg/NCM	ppm	Averaging Time
Suspended Particulate Matter ^c – TSP	230 ^d		24 hours	90		1 year ^e
PM-10	150 ^f		24 hours	60		1 year ^e
Sulfur Dioxide ^c	180	0.07	24 hours	80	0.03	1 year
Nitrogen Dioxide	150	0.08	24 hours			
Photochemical Oxidants as Ozone	140 60	0.07 0.03	1 hour 8 hours			
Carbon Monoxide	35 mg/NCM 10 mg/NCM	30 9	1 hour 8 hours			
Lead ^g	1.5		3 months ^g	1.0		1 year

^a Maximum limits represented by ninety-eight percentile (98%) values not to exceed more than once a year.

^b Arithmetic mean.

^c SO₂ and Suspended Particulate matter are sampled once every six days when using the manual methods. A minimum of twelve sampling days per quarter or forty-eight sampling days each year is required for these methods. Daily sampling may be done in the future once continuous analyzers are procured and become available.

^d Limits for Total Suspended Particulate Matter with mass median diameter less than 25-50 µm.

^e Annual Geometric Mean.

^f Provisional limits for Suspended Particulate Matter with mass median diameter less than 10 µm and below until sufficient monitoring data are gathered to base a proper guideline.

^g Evaluation of this guideline is carried out for 24-hour averaging time and averaged over three moving calendar months. The monitored average value for any three months shall not exceed the guideline value.

- (b) The applicable methods for sampling and measurement of the above pollutants are as follows:

- TSP - High Volume – Gravimetric, USEPA 40 CFR, Part 50, Appendix B
- PM-10 - High Volume with 10 micron particle-size inlet; Gravimetric,

Sulfur Dioxide Method), or	-	USEPA 40 CFR, Part 50, Appendix J Gas Bubbler and Pararosaniline Method (West and Gaeke Method), or Flame Photometric Detector, USEPA 40CFR, Part 50, Appendix A
Nitrogen Dioxide Chemiluminescence Method,	-	Gas Bubbler Griess-Saltzman, or USEPA 40 CFR, Part 50, Appendix F
Ozone Chemiluminescence Method,	-	Neutral Buffer Potassium Iodide (NBKI), or
Carbon Monoxide	-	USEPA 40 CFR, Part 50, Appendix D Non-dispersive Infra-red Spectrophotometry (NDIR), USEPA 40 CFR, Part 50, Appendix C
Lead	-	High Volume and Atomic Absorption Spectrophotometry, USEPA 40 CFR, Part 50, Appendix G

- (c) An analyzer based on the principles and methods cited above will be considered a reference method only if it has been designated as a reference method in accordance with 40 CFR, Part 53.
- (d) Other equivalent methods approved by the Bureau may be adopted.

Section 2. Review of Air Quality Guideline Values

The Department through the Bureau shall, on a routine basis, in coordination with other concerned agencies and programs such as the National Research and Development Program for the Prevention and Control of Air Pollution, review the list of Hazardous Air Pollutants and Guideline Values and recommend to the Secretary of the Department the revision thereof whenever necessary to protect public health and safety, and general welfare, consistent with the requirements of Rule XVII, Section 3.

Section 3. Publication of Revised Values

Upon approval by the Secretary, the revised Ambient Air Quality Guideline Values shall be published in one (1) newspaper of general circulation and shall be posted on a public Internet website.

Section 4. Air Quality Indices

The Department through the Bureau, and in conjunction with the Department of Health (DOH) may formulate a pollution standard index of air quality to protect public health, safety and general welfare. Implementation and enforcement of corrective actions contained in the index will be at the local government unit (LGU) level. Annex A contains the air quality indices and recommended actions that each LGU may opt to follow.

PART III MAINTENANCE OF ATTAINMENT AREAS

RULE VIII ATTAINMENT AREAS - GENERAL

Section 1. Designation of Attainment Areas

The Bureau shall delineate areas where the existing ambient air quality is at or below (that is, complies with) National Ambient Air Quality Guideline Values given in Part II, and shall designate such areas as “attainment areas.” Designation of attainment areas will be based on monitoring data

collected using the reference methods in Part II and/or other relevant information, including meteorological data, and data covering existing nearby sources. The Department through the Bureau will designate attainment and non-attainment areas, and will review and revise these designations from time to time as relevant data become available.

Section 2. Review of Area Designation

The Bureau shall revise area designations as additional data, whether monitoring, source or general knowledge, become available. Results from reviews of area designations will be made available for public comment.

RULE IX EXISTING SOURCES IN ATTAINMENT AREAS

Section 1. Standards

Existing sources must comply with National Emission Standards for Source Specific Air Pollution and Ambient Air Quality Standards pertaining to the source.

Section 2. Non-compliance

Sources not in compliance with Section 1 above must submit a Compliance Plan to the Bureau for approval, which details how the source will be brought into compliance. The owner of the facility must submit the plan within two (2) months of *notification of non-compliance by the Bureau*. The plan must include a schedule that will be enforceable and may provide for as long as eighteen (18) months to meet the applicable standards after notice of non-compliance by the Bureau. The Bureau may grant an extension of up to twelve (12) months for good-faith actions from the source owner.

Section 3. Emission Averaging and Emission Trading

Compliance plans submitted under Section 2 above may include use of emission averaging and emission trading as approved by the Bureau and described in Rules XXI and XXII respectively.

Section 4. Modification of Sources

Any existing source in an attainment area making a change or modification to its process or production which results in an increase of POTENTIAL emissions equal to or greater than the following shall be considered significant and subject to Rule X for the affected pollutant(s).

Carbon Monoxide	100 tons per year
Nitrogen Oxides	40 tons per year
Sulfur Dioxide	40 tons per year
TSP	25 tons per year
PM10	15 tons per year
Volatile Organic Compounds	40 tons per year
Hydrogen Sulfide	10 tons per year

RULE X NEW/MODIFIED SOURCES IN ATTAINMENT AREAS

Section 1. Standards

New or modified sources must comply with National Emission Standards for Source Specific Air Pollution and Ambient Air Quality Standards pertaining to the source.

Section 2. Best Available Control Technology

Sources subject to this Rule shall, in addition to meeting the requirements of Section 1 of this Rule, install and operate Best Available Control Technology for each regulated pollutant with the potential to be emitted in quantities equal to or greater than 100 tons per year. Selection of the appropriate control technology will be made in consultation and with the approval of the Bureau but in no case shall it result in non-compliance with requirements of Section 1. Installation of the control equipment will be at the time of source construction or modification.

Section 3. Increment Consumption

No new source may be constructed or existing source modified if emissions from the proposed source or modification will, based on computer dispersion modeling, result in;

Exceedance of the National Ambient Air Quality Guideline Values; or
An increase in existing ambient air levels above the levels shown below

PM-10, annual arithmetic mean	17 micrograms per cubic meter
PM-10, 24-hr maximum	30 micrograms per cubic meter
Sulfur Dioxide, annual arithmetic mean	20 micrograms per cubic meter
Sulfur Dioxide, 24-hr maximum	91 micrograms per cubic meter
Nitrogen Dioxide, annual arithmetic mean	25 micrograms per cubic meter

In the case of multiple point sources at a single facility, the net emissions from all affected sources shall be included in a single increment analysis.

Section 4. Emission Averaging and Emission Trading

Sources subject to provision of this Rule shall not be eligible for emission averaging however they may generate emission credits for purposes of an acceptable emission trading program.

Section 5. Continuous Emission Monitoring

New and modified sources shall install and operate, according to manufacturer specifications, continuous emission monitoring systems (CEMS) for each applicable pollutant listed in Section 4, Rule IX that the source has the POTENTIAL to emit in quantities equal to or greater than 100 tons per year. TSP and PM-10 fractions are not differentiated for purposes of this section; therefore, applicability will be determined by the total particulate matter expected to be emitted for new sources, or as collected by 40 CFR Part 60, Appendix A, Method 5 for modified sources. CEMS shall be applied as follows:

All sources subject to this section: Sources shall install and operate a CEMS for carbon dioxide and oxygen that meets criteria provided in USEPA 40 CFR Part 60 Appendix B, Performance Specification 3. Additionally, each source shall, as appropriate meet the following requirements;

- a) Particulate matter: Sources shall install and operate a CEMS for opacity that meets criteria provided in USEPA 40 CFR Part 60 Appendix B, Performance Specification 1. The owner shall have the additional requirement of establishing a calibration curve showing the relationship between opacity as measured by the CEMS and mass particulate emission rate as determined by Method 5. The calibration curve shall cover the full range of reasonably expected operating conditions and/or process rates of the source and shall consist of at least three data points, one at maximum permitted operations, one at maximum design capacity, and one at 80% of the maximum permitted rate. The Bureau may waive one test point if the permitted rate and maximum design capacity rate are the same.
- b) Sulfur Dioxide and Nitrogen Oxides: Sources shall install and operate a CEMS for these parameters that meet criteria provided in USEPA 40 CFR Part 60 Appendix B, Performance Specification 2.
- c) Carbon Monoxide: Sources shall install and operate a CEMS for this parameter that meets criteria provided in USEPA 40 CFR Part 60 Appendix B, Performance Specification 4 or 4A.
- d) Hydrogen Sulfide: Sources shall install and operate a CEMS for this parameter that meets criteria provided in USEPA 40 CFR Part 60 Appendix B, Performance Specification 7.

The CEMS requirements under this Section shall not apply to refinery flares, as well as to volatile organic compounds, unless a specific provision requires CEMS for volatile organic compounds is included in the facility's permit to operate.

PART IV MANAGEMENT OF NON-ATTAINMENT AREAS

RULE XI NON-ATTAINMENT AREAS - GENERAL

Section 1. Designation of Non-Attainment Areas

The Bureau shall designate and delineate areas where the existing ambient air quality is not in conformance with National Ambient Air Quality Guideline values given in Part II as "non-attainment areas." Designation of non-attainment areas will be based on monitoring data collected using the reference methods in Part II or as may be reasonably expected from existing nearby sources and meteorological conditions. Special consideration will be given to populated areas where greater numbers of people may be exposed to unhealthy air. The Department through the Bureau will designate attainment and non-attainment areas, and will review and revise these designations from time to time as relevant data becomes available.

An area may be designated as non-attainment for one or more criteria pollutants, and may be an attainment area for the remaining criteria pollutants.

Section 2. Review of Area Designation

The Bureau shall revise and/or confirm area designations as additional data, whether monitoring, sampling, source specific or general knowledge, becomes available. Results from reviews of area designations will be made available for public comment/review.

RULE XII EXISTING SOURCES IN NON-ATTAINMENT AREAS

Section 1. Standards

Existing sources must comply with all National Emission Standards for Source Specific Air Pollution and Ambient Air Quality Standards pertaining to the source.

Section 2. Non-compliance

Sources not in compliance with Section 1 above must submit a Compliance Plan to the Bureau for approval which details how the source will be brought into compliance. The owner of the facility must submit the plan within two (2) months of notification of non-compliance by the Bureau. The plan must include a schedule that will be enforceable and may provide for as long as eighteen (18) months to meet the applicable standards after notice of non-compliance by the Bureau. Extensions or grace periods will not be allowed in non-attainment areas.

Should the source failed to comply with its commitment within the specified period in the compliance plan, the Bureau shall impose penalties and fines to be computed retroactive from the time the notification of non-compliance was served.

Section 3. Emission Averaging and Emission Trading

Existing sources located in non-attainment areas will be allowed to use emission averaging for compliance purposes however, they will not be allowed to participate in emission trading for the pollutant or pollutants for which the area is designated as a non-attainment area, except as a generator (not user) of emission reduction credits.

Section 4. Modification of Sources

Any existing source located in a non-attainment area and making a change in process or production which increases POTENTIAL emissions from the source of the pollutant for which the area is designated non-attainment, shall be classified as modified and subject to Rule XIII. Equipment overhaul, refurbishment, or upgrade to extend the life of the equipment beyond its normal useful life is considered to be a modification if it result in the increase of POTENTIAL emissions for purposes of this Section.

Section 5. Emission Fee Surcharge

Sources subject to the non-attainment provisions will be assessed a 50% surcharge (i.e., 150% of base) on the annual emission fees for the pollutant(s) for which the area is designated non-attainment.

Section 6. Penalty and Fine Surcharge

Sources subject to the non-attainment provisions will be subject to a 100% surcharge (i.e., 200% of base) for any penalties or fines relating to a violation of the non-attainment provisions.

RULE XIII NEW/MODIFIED SOURCES IN NON-ATTAINMENT AREAS

Section 1. Standards

New or modified sources must comply with all National Emission Standards for Source Specific Air Pollution and Ambient Air Quality Standards pertaining to the source.

Section 2. Lowest Achievable Emission Rate

New and modified sources (as defined in Section 4 of Rule XII) shall install and operate air pollution control technology which will provide the lowest achievable emission rate (LAER) of the pollutant for which the area is designated non-attainment. The affected firm will propose technologies it believes will meet the intent of this regulation. The Bureau will approve the use of lowest achievable emission rate control technologies on a case-by-case basis.

Section 3. Emission Offsets

New and modified sources must provide offsets in existing actual emission within the non-attainment area in a ratio of 1:1.2 to the POTENTIAL emission level of the proposed new or modified source. The offsets may be made from any existing source in the non-attainment area but must be actual, demonstrable, enforceable and permanent. The proposed offsets are subject to approval by the Bureau.

Section 4. Emission Averaging and Emission Trading

New and modified sources subject to the non-attainment provisions may not use emission trading or emission averaging for compliance purposes.

Section 5. Continuous Emission Monitoring

New and modified sources must install and operate, according to manufacturer specifications, continuous emission monitoring devices for each pollutant for which the area is in non-attainment and which the source emits. Application, installation and operation of the CEMS shall meet criteria provided in Rule X Section 5.

Section 6. Emission Fee, Penalty and Fine Surcharge

Sections 5 and 6 of Rule XII above shall apply to new and modified sources in non-attainment areas.

PART V AIR QUALITY MANAGEMENT SYSTEM

RULE XIV AIR QUALITY MANAGEMENT INFORMATION SYSTEM

Section 1. Ambient Air Monitoring Network

The Bureau shall, within two (2) years from the effectivity of these Rules, design and establish an Ambient Air Monitoring Network for the assessment of ambient air quality. The Ambient Air Monitoring Network shall be expanded gradually to cover the entire country.

Section 2. Emissions Inventory

The Bureau shall, within three (3) years from the date of effectivity of these Rules, and every three (3) years thereafter, make an inventory of emissions from stationary, mobile and area sources. Where possible, the Bureau shall coordinate with the Governing Boards.

Section 3. Air Quality Database

The Bureau and the National Statistical Coordination Board shall design the Air Quality Database which shall be computerized and stored in a manner accessible to the public and shall contain data collected from the Ambient Air Monitoring Network and the Emissions Inventory. The Bureau shall maintain and update the Air Quality Database.

Section 4. National Air Quality Status Report

The Bureau, shall prepare the Annual National Air Quality Status Report which shall contain:

- (a) A summary of the extent of air pollution in the country, per type of pollutant and per type of source;
- (b) An analysis and evaluation of the current state, trends and projections of air pollution;
- (c) An identification of critical areas, activities, or projects which will need closer monitoring or regulation;
- (d) Recommendations for necessary executive and legislative action; and
- (e) Other pertinent qualitative and quantitative information concerning the extent of air pollution and the air quality performance rating of industries in the country.

Upon approval by the Secretary of the Department, the National Air Quality Status Report shall be submitted to the Office of the President and to Congress on or before March 31 of every year and shall cover the preceding calendar year. The National Air Quality Status Report and other related reports shall be made available to the public.

RULE XV AIRSHEDS

Section 1. Authority

The Secretary of the Department, upon the recommendation of the Bureau, shall divide the geo-political regions of the country into airsheds.

Section 2. Designation of Airsheds

Designation of airsheds shall be on the basis of, but not limited to, areas with similar climate, weather, meteorology and topology which affect the interchange and diffusion of pollutants in the atmosphere, or areas which share common interest or face similar development programs, prospects or problems. Designation of airsheds shall be revised as additional data, needs or situations arise.

For a more effective air quality management, a system of planning and coordination shall be established and a common action plan shall be formulated for each airshed.

Section 3. Initial Designation of Airsheds

The Department through the Bureau will designate the airshed, determine the attainment and non-attainment areas, and will review and revise these designations from time to time as relevant data becomes available.

Section 4. Governing Board

Pursuant to Section 9 of the Act, a Governing Board will be created for each airshed, to effectively carry out the formulated action plans.

Section 5. Composition and Organizational Set-up of the Board

Each Governing Board shall be headed by the Secretary of the Department as Chairman. The members shall be as follows:

- (a) Provincial Governors from areas belonging to the airshed;
- (b) City/Municipal Mayors from areas belonging to the airshed or the MMDA Chairman in the case of Metro Manila;
- (c) A representative from each concerned government agency;
- (d) Representatives from people's organizations;
- (e) Representatives from non-government organizations; and
- (f) Representatives from the private sector.

There shall be two Deputy Chairpersons, namely, the Department's Regional Executive Director and the Bureau's Regional Director in the region where the airshed is located. The ratio of Board representatives from government agencies to those from the private sector and from civil society shall be on the order of 5:2:2.

Within six (6) months from the designation of a particular airshed, concerned POs, NGOs and private business sector in the airshed or with recognized interests in the airshed shall choose their representatives by and among themselves through sectoral assemblies convened for the purpose.

Members of the governing board shall serve for a term of three (3) years (or such lesser time as may be permitted by the term of office if publicly-elected officials) without compensation, except for actual and necessary expenses (i.e. traveling) incurred in the performance of their duty. When a vacancy occurs during the term of a member from a PO, NGO or the private business sector, a new member shall be appointed by the Governing Board for the remainder of the unfinished term.

Section 6. Functions of the Board

Each Governing Board shall perform the following functions within its jurisdiction (airshed):

- (a) Formulation of policies and standard-setting subject to laws of national application;
- (b) Preparation of a common action plan;
- (c) Coordination of functions among its members; and
- (d) Submission and publication of an annual Air Quality Status Report for each airshed.

Section 7. Executive Committee

An Executive Committee will be formed, for the purpose of carrying out the day-to-day functions of the Governing Board, consisting of nine (9) persons: the Chairperson, two (2) Deputy

Chairpersons and six (6) members while respecting the ratio of government representatives to representatives from the private sector and civil society of 5:2:2. The members of the Committee shall be elected by the governing board at large for a term of two (2) years. Where possible, members of the Committee will be selected for their expertise in the subject area. Representatives will be selected from the appropriate region.

Section 8. Technical Working Groups

Technical working groups will be formed to ensure broad-based participation in the work of the Governing Boards.

Section 9. Technical-Administrative Secretariat

The Bureau shall serve as the technical-administrative secretariat for each Governing Board.

Section 10. Meetings

The Department shall provide basic funding from the Air Quality Management Fund for the conduct of regular meetings of the Governing Boards, the Executive Committee, Technical Working Groups and other activities to be conducted in the implementation of the Act. Additional funding shall be made available to support civil society activities aligned with the implementation of the Act provided these activities are included in the common action plan of the concerned airshed.

Section 11. Governing Rules

Governing rules shall be formulated by and for the individual Governing Boards. These governing rules shall be submitted for review and comments by the Department to advise the Governing Boards of conflict in policies and laws of national application.

Section 12. Re-designation of Airshed Boundaries

Upon consultation with appropriate local government authorities, the Secretary of the Department, upon recommendation of the Bureau shall, from time to time, revise the designation of airsheds utilizing eco-profiling techniques and undertaking scientific studies.

RULE XVI AIR QUALITY MANAGEMENT FUND

Section 1. Air Quality Management Fund

An Air Quality Management Fund (AQMF) to be administered by the Department through the Bureau as a special account in the National Treasury is hereby established to finance containment, removal, and clean-up operations of the Government in air pollution cases, guarantee restoration of ecosystems and rehabilitate areas affected by the acts of violators of this Act, to support research, enforcement and monitoring activities and capabilities of the relevant agencies, as well as to provide technical assistance to the relevant agencies. Such fund may likewise be allocated per airshed for the undertakings herein stated.

Section 2. Uses of Fund

The AQMF will be used for activities that are in direct support of objectives outlined in the Air Quality Action Plan of the airsheds. The AQMF will be reserved for national purposes and will

be allocated among the airsheds. This can mean support, grant, finance or otherwise assist activities such as, but not limited to:

- (a) purchase of equipment related to air quality monitoring, reporting or management;
- (b) running costs for special campaigns, monitoring, enforcement or public awareness raising;
- (c) costs for special events related to air quality monitoring, enforcement etc.
- (d) funding of temporary staff positions in accredited organizations, of persons who have a TOR directly related to implementation of AQAP;
- (e) research on air related issues; and
- (f) running costs of Governing Boards and their Technical Secretariats

Section 3. Sources for the Air Quality Management Fund

Sources for the AQMF shall include:

- (a) air emission charges from industrial facilities;
- (b) air emission charges from motor vehicles;
- (c) fines and penalties for non-compliance with environmental standards. This relates to both vehicular and industrial related air pollution;
- (d) grants from both private sector and donor organizations.; and
- (e) a limited percentage (5-10%) of the proceeds of the Program Loan for the Metro Manila Air Quality Improvement Sector Development Program.

Section 4. Decision Making on the Use of the Air Quality Management Fund (AQMF)

The Department through the Bureau shall formulate a detailed set of criteria (project design, project management, project reporting and project accounting) of qualified or eligible projects and activities to be supported by the AQMF. Individual Governing Boards shall follow these criteria in allocating those funds that are put at their disposal by the Department. Individual Governing Boards shall set up special committees for this purpose with members drawn from both the government, private sector and civil society members of each Governing Board.

In order to promote transparency and accountability, the Department will formulate business standards, which will describe the scrutiny mechanisms of proposals as well as maximum response times. The Department will ensure the publication of an Annual Report which specifies income and expenditure of the AQMF, together with a summary of initiatives supported and refused. This Annual Report will be available within two (2) months after the end of the fiscal year.

Section 5. Air Emission Fees For Stationary Sources and For Mobile Sources

Air emission fees will initially be determined based on the amount of revenue necessary to assure the successful implementation of the Act as described in these Implementing Rules and Regulations. The air emission fees shall then be apportioned to stationary and mobile sources based on estimated annual mass emissions.

The Bureau shall use data contained in a facility's operating permit to estimate annual mass emissions. Other data sources such as annual fuel consumption and/or production rates may also be used as well as appropriate emission factors. Facility owners may, at their option, install CEMS to determine actual emission rates for purposes of calculating annual emission fees. CEMS used for this purpose must be installed and operated as per criteria provided in Rule X Section 5.

The base air emission fee may be adjusted in later years as new data becomes available regarding the success of individual components of the Act.

RULE XVII AIR POLLUTION RESEARCH AND DEVELOPMENT PROGRAM

Section 1. National Research and Development Program for the Prevention and Control of Air Pollution

The Department through the Bureau, in coordination with the Department of Science and Technology (DOST), other agencies, the private sector, the academe, NGOs and POs shall, establish a National Research and Development Program for the Prevention and Control of Air Pollution.

Section 2. Development of Industry-Wide Applicable Methods

The Bureau shall give special emphasis to research on and the development of improved methods having industry-wide application for the prevention and control of air pollution.

Section 3. Development of Air Quality Guidelines

The National Research and Development Program for the Prevention and Control of Air Pollution shall develop air quality guidelines values in addition to internationally-accepted standards. It shall consider the socio-cultural, political and economic implications of air quality management and pollution control.

RULE XVIII EMISSION QUOTAS

Section 1. Emission Quotas

Subject to approval of the Department through the Bureau, each regional industrial center designated as a special airshed can allocate emission quotas to pollution sources within its jurisdiction that qualify under an environmental impact assessment system programmatic compliance program pursuant to the implementing rules and regulations of Presidential Decree No. 1586. However, such sources shall remain subject to the requirements of these Implementing Rules and Regulations.

Prior to implementation thereof, the Department through the Bureau shall consider, among others, the emission inventory and the mass rate emission standards.

PART VI AIR POLLUTION CLEARANCES AND PERMITS FOR STATIONARY SOURCES

RULE XIX PERMIT REGULATIONS

Section 1. Permits Required

All sources of air pollution subject to these Implementing Rules and Regulations must have a valid Permit to Operate issued by the Director. New or modified sources must first obtain an Authority to Construct issued by the Director.

Section 2. Filing Fees for Applications

A fee to be determined by the Department through the Bureau shall be paid upon the filing of any of the following applications:

- (a) Authority to Construct;
- (b) Permit to Operate;
- (c) Transfer of an existing and valid Permit to Operate by reason of transfer of location of the installation or change of permittee or both;
- (d) Revision of any existing and valid Authority to Construct or Permit to Operate involving alteration or replacement of the installation;
- (e) Renewal of an expired Authority to Construct or Permit to Operate;
- (f) Any other application for a permit not otherwise enumerated above.

Filing fees for applications which have been denied shall not be refunded nor applied to subsequent applications.

Section 3. Authority to Construct

All proposed or planned construction or modification of sources that has the potential to emit 100 tons per year or more of any of the regulated pollutants are hereby required an Authority to Construct approved by the Bureau before construction or modification activities can take place. Applications shall be filed in four (4) copies and supported by the official receipt of the filing fees and by such documents, information and data as may be required by the Bureau, including the following:

- (a) An engineering report covering the plant description and operations, the estimated types, concentrations and quantities of all emissions to the atmosphere, the proposed control facilities, the emission rate and annual mass emission objectives, the design criteria for air pollution control equipment to be used, and other relevant information. The design criteria, if warranted, shall be based on the results of laboratory and pilot plant scale studies. The design efficiencies of the proposed air control equipment and the quantities and types of pollutants in the final emissions shall be indicated. Where confidential records are involved, the Bureau may limit the full disclosure of the same after discussions with the applicant;
- (b) The plans and specifications of the installation and its control facilities (in standard size of 50 cm by 90 cm) duly certified by a registered professional mechanical engineer, sanitary engineer or chemical engineer or a combination of any two or all of them as may be required by the Bureau depending upon the nature of the construction, operation or activity sought to be covered by the Authority to Construct. The plans shall clearly show in adequate detail the proposed arrangement, location and size of the pollution control equipment or facilities, including their accessories, cross-sections and construction details. The specifications shall be in sufficient detail so that, when read in conjunction with the plans, they clearly reveal the proposed means and methods for the control of pollution and their expected performance efficiency.
- (c) The project proponent shall conduct an air quality impact analysis using Bureau-approved computer dispersion models and techniques. The impact analysis shall estimate the resulting ambient air concentrations for all significant pollutants from the facility, and shall include the existing ambient air concentrations as a baseline. The impact analysis will be used by the Bureau, together with other relevant information,

to determine if the proposed construction or modification will result in a violation of an applicable air quality standard.

- (d) A vicinity map adequately identifying the street address, if any, of the location or premises of the installation.

The Bureau shall, within a reasonable time, act on the application for Authority to Construct either by issuing the corresponding Authority to Construct or by denying the application in writing stating the reason or reasons thereof.

The Authority to Construct shall be issued subject to such conditions as the Department through the Bureau may deem reasonable to impose and upon payment of the fees in accordance with the schedule to be prepared by the Bureau.

In case the application is denied, the applicant may, within ten (10) days from notice of such denial, file only one written petition for reconsideration. The decision on said petition shall become final after ten (10) days from receipt thereof.

Section 4. Conversion of Authority to Construct to Permit to Operate

Once new source construction or modification is completed the source owner shall, within sixty (60) days of startup, request the authorizing agency (generally the Department through the Bureau) to convert the Authority to Construct to a Permit to Operate. A valid Permit to Operate will be issued once the owner has demonstrated to the satisfaction of the authorizing agency that all permit conditions have been or will be met and that no air quality standards or guidelines will be exceeded. The owner shall conduct source testing using methods and techniques approved by the Bureau as part of the demonstration.

Section 5. Application for Permit to Operate

An application for a Permit to Operate shall be filed for each source emitting regulated air pollutants. Facilities having more than one source may group the sources under a single permit application, provided the requirements below are met for each individual source. Applications shall be made in a format prescribed by the Department through the Bureau, filed in triplicate copies, together with a copy of the official receipt of the filing fees and including the following:

- (a) The information listed in Section 3 of this Rule;
- (b) A statement of compliance or non-compliance with Rule XXV (or, in the case of incinerators, a statement of compliance or non-compliance with Rule XXVIII). The statement of compliance shall be supported with actual test data (such as stack sampling test data), or data gathering techniques acceptable to the Bureau.
- (c) A statement of compliance or non-compliance with Rule XXVI, Ambient Air Quality Standards. The statement of compliance shall be supported by dispersion modeling data using modeling techniques and sampling approved by the Bureau. For cases in which source sampling and analysis is not practical, the Bureau may approve the use of actual ambient air test data to demonstrate compliance with the Ambient Air Quality Standards, so long as the location and conditions of the testing conform to a "worst case" scenario as demonstrated by air dispersion modeling.
- (d) A compliance action plan for sources not meeting regulatory requirements. The Compliance Plan may include provision for use of emission averaging and/or trading as allowed under Parts III and IV.
- (e) A certification signed by the applicant attesting to the accuracy and completeness of the application.

- (f) A signed copy of the appointment or designation of the pollution control officer of the applicant; and
- (g) Other documents, information and data as may be required by the Department through the Bureau.

Requirements in the Permit to Operate will be based on operating conditions at the time of the test. For example, if the facility passes the stack sampling test at 50% operating capacity, then the Permit to Operate will require the facility to operate at or below 50% operating capacity.

Section 6. Action on the Application for Permit to Operate

Within thirty (30) days from submission of the complete requirements, the Department through the Bureau shall act on the application for Permit to Operate by approving or denying the same in writing. The Department through the Bureau may deny an application having incomplete requirements when the applicant fails or refuses to complete the same despite being given reasonable time to do so.

The Permit to Operate shall be issued or renewed every year subject to such conditions as the Department through the Bureau may deem reasonable to impose, and upon payment of the permit fees for air pollution source and control facilities.

In case the application is denied, the applicant may, within ten (10) days from notice of such denial file only one written petition for reconsideration. The decision on said petition shall become final after ten (10) days from receipt thereof.

Applications for a Permit to Operate shall be available for public review at the Department Regional Office for the Region in which the applicant's facility is located. Any interested person may oppose the application for a Permit to Operate in writing before its approval. In such a case, the Bureau may conduct a public hearing on the application.

Section 7. Temporary Permit to Operate

For purposes of sampling, planning, research and other similar purposes, the Department through the Bureau, upon submission of satisfactory proof, may issue a Temporary Permit to Operate not to exceed ninety (90) days, provided that the applicant has a pending application for a Permit to Operate under Section 5.

Section 8. Life and General Conditions of Permit

A permit duly issued by the Department through the Bureau shall be valid for the period specified therein but not beyond one (1) year from the date of issuance unless sooner suspended or revoked. It may be renewed by filing an application for renewal at least thirty (30) days before its expiration date and upon payment of the required fees and compliance with requirements.

Issuance of the permit shall not relieve the permittee from complying with the requirements of the Act and these Rules and that commencement of the work or operation under such permit shall be deemed acceptance of all the conditions therein specified.

Section 9. Grounds for Modification of Permit Conditions

After due notice and public hearing, the Department through the Bureau may modify any existing and valid permit by imposing new or additional conditions, provided that the permittee is given reasonable time to comply with such new or additional conditions, upon showing:

- (a) That an improvement in emission quality or quantity can be accomplished because of technological advance without unreasonable hardship;
- (b) That a higher degree of treatment is necessary to effect the intents and purposes of the applicable provisions of these Rules and Regulations;
- (c) That a change in the environment or surrounding conditions requires a modification of the installation covered by a permit to conform to applicable air quality standards, as the case may be;
- (d) That the area in which the permitted facility is located has been changed from an undesignated area or an attainment area to a non-attainment area for one or more criteria pollutants, or;
- (e) That the Act or these Rules and Regulations requires the modification of the permit conditions.

Section 10. Grounds for Suspension or Revocation of Permits

After due notice and hearing, the Department through the Bureau may suspend or revoke any existing and valid permit on any of the following grounds:

- (a) Non-compliance with, or violation of any provision of Act, these Rules and Regulations, and/or permit conditions;
- (b) False or inaccurate information in the application for permit that led to the issuance of the permit;
- (c) False or inaccurate information in the monitoring data or in reports required by the Permit to Operate;
- (d) Refusal to allow lawful inspection conducted by the Department through the Bureau of duly authorized personnel;
- (e) Non-payment of the appropriate fees;
- (f) Other valid purposes.

Section 11. Posting of Permit

The permittee shall display the permit upon the installation itself in such manner as to be clearly visible and accessible at all times. In the event that the permit cannot be so placed, it shall be mounted in an accessible and visible place near the installation covered by the permit.

No person shall willfully deface, alter, forge, counterfeit, or falsify any permit.

Section 12. Transfer of Permits

In case of sale or legal transfer of a facility covered by a permit, the permittee shall notify the Department through the Bureau of such and the name and address of the transferee within thirty (30) days from the date of sale or transfer. In case of failure to do so, he shall be liable for any violation of these Rules and Regulations that the transferee may commit by reason of such transfer. It shall be the duty of the transferee to file an application for transfer of the permit in his name within ten (10) days from notification of the Department through the Bureau.

Section 13. Plant Operational Problems

In the event that the permittee is temporarily unable to comply with any of the conditions of the Permit to Operate due to a breakdown of the installation covered by the permit for any cause, he or his pollution control officer shall immediately notify within 24 hours from occurrence of such breakdown the Department through the Bureau of such cause(s), and the steps being taken to solve the problem and prevent its recurrence, including the estimated duration of the breakdown, the intent toward reconstruction or repair of such installation and such other relevant information or data as may be required by the Department through the Bureau. The Department through the Bureau shall be immediately notified when the condition causing the failure or breakdown has been corrected and such source equipment or facility is again in operation

In such a case, the permittee may be subject to the payment of fines or penalties as provided under Part XIII of these Implementing Rules and Regulations.

Section 14. Monitoring and Reporting

The owner or the pollution control officer in charge of the installation subject to the provisions of these Implementing Rules and Regulations shall keep a record of its operational data and control test indicating its operational efficiency, and shall furnish a copy of the same to the Department through the Bureau quarterly in accordance with the procedures and/or programs approved by the Department through the Bureau for this purpose.

A permit issued by the Department through the Bureau will generally contain source-specific monitoring and reporting requirements for air pollutant concentrations at the point of emission, for determination of compliance with the requirements of Rule XXV. These requirements may include, where applicable, a provision that sample results for particulate matter shall be corrected to standard operating (or combustion) conditions such as 12% carbon dioxide.

RULE XX FINANCIAL LIABILITY FOR ENVIRONMENTAL REHABILITATION

Section 1. Financial Guarantee Mechanisms

As part of the environmental management plan attached to the environmental compliance certificate (ECC) pursuant to Presidential Decree No. 1586 and its rules and regulations, the Bureau shall require program and project proponents to put up financial guarantee mechanisms to finance the needs for emergency response, clean-up or rehabilitation of areas that may be damaged during the program or actual project implementation. Liability for damages shall continue even after the termination of a program or project, where such damages are clearly attributable to that program or project and for a definite period to be determined by the Bureau and incorporated into the ECC.

The Bureau may promulgate guidelines for the effective implementation of said financial guarantee mechanisms.

Section 2. Financial Liability Instruments

Financial liability instruments may be in the form of a trust fund, environmental insurance, surety bonds, letters of credit, as well as self-insurance. The choice of the guarantee instrument or combinations thereof shall depend, among others, on the assessment of risks involved. Proponents required to put up guarantee instruments shall furnish the Bureau with evidence of availment of such instruments.

RULE XXI EMISSION AVERAGING

Section 1. Applicability

Facilities having multiple sources within a contiguous property and owned by the same entity may use emission averaging for compliance purposes if provided for in either Part III or Part IV.

Section 2. Approach

Facility owners wishing to use emission averaging for compliance purposes must do so through an enforceable Compliance Plan submitted as a part of the operating permit application. The Bureau must approve the Compliance Plan and application of emission averaging for it to be effective.

Section 3. Requirements

Facilities must install a CEMS approved by the Bureau for the pollutant(s) to which emission averaging is being applied. The continuous emission monitoring system must be installed on each source subject to emission averaging. Application, installation and operation of the CEMS shall meet criteria provided in Rule X Section 5.

RULE XXII EMISSIONS TRADING

Section 1. Applicability

Emissions trading may be allowed among pollution sources within an airshed as provided in Parts III and IV. Facilities located in different airsheds may use trading as approved by the Bureau.

Section 2. Approach

Facility owners wishing to use emission trading for compliance purposes must do so through an enforceable Compliance Plan submitted as a part of the operating permit application of each facility. The Bureau must approve the Compliance Plan and application of emission trading for it to be effective.

Section 3. Requirements

Facilities must install a CEMS approved by the Bureau for the pollutant(s) to which emission trading is being applied. The continuous emission monitoring system must be installed on each source that is being used to generate the emission reduction credits. Application, installation and operation of the CEMS shall meet criteria provided in Rule X Section 5.

RULE XXIII SYSTEM OF INCENTIVES

Section 1. Tax Incentives

Industries, which shall install pollution control devices or retrofit their existing facilities with mechanisms that reduce pollution, shall be entitled to tax incentives such as but not limited to tax credits and/or accelerated depreciation deductions. The Department in coordination with the DTI, DOF, NEDA and other concerned agencies shall develop the guidelines on tax incentives.

RULE XXIV RECORD-KEEPING, INSPECTION, MONITORING AND ENTRY

Section 1. Required Relevant Reports and Records

The Bureau or its duly accredited entity shall, after proper consultation and notice, require any person who owns or operates any emissions source or who is subject to any requirement of this Act to : (a) establish and maintain relevant records; (b) make relevant reports; (c) install, use and maintain monitoring equipment or methods; (d) sample emission, in accordance with the methods, locations, intervals and manner prescribed by the Environmental Management Bureau; (e) keep records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical; and (f) provide such other information as the Environmental Management Bureau may reasonably require.

Section 2. Right of Entry, Inspection and Testing

Pursuant to the Act, the Bureau, through its authorized representatives, shall have the right of:

- (a) entry or access to any premises including documents and relevant materials as referred to in the herein preceding paragraph;
- (b) inspect any pollution or waste source, control device, monitoring equipment or method required; and
- (c) test any emission.

Section 3. Records Available to the Public

Any record, report or information obtained under this section shall be made available to the public, except upon a satisfactory showing to the Bureau by the entity concerned that the record, report or information, or parts thereof, if made public, would divulge secret methods or processes entitled to protection as intellectual property. Such record, report or information shall likewise be incorporated in the Bureau's industrial rating system.

PART VII POLLUTION FROM STATIONARY SOURCES

RULE XXV STATIONARY SOURCES - GENERAL

Section 1. National Emission Standards for Source Specific Air Pollutants

For any trade, industry, process, fuel-burning equipment or industrial plant emitting air pollutants, the concentration at the point of emission shall not exceed the limits set in Table 2.

Table 2
National Emission Standards for Source Specific Air Pollutants (NESSAP)

POLLUTANT	STANDARD APPLICABLE TO SOURCE	MAXIMUM PERMISSIBLE LIMITS (mg/NCM)	METHOD OF SAMPLING^a	METHOD OF ANALYSIS^a
Antimony and its Cmpds.	Any source	10 as Sb	USEPA Methods 1 through 5 or 29	AAS ^b or per sampling method
Arsenic and its Cmpds.	Any source	10 as As	USEPA Methods 1 through 5 or 29	AAS ^b or per sampling method
Cadmium and its Cmpds.	Any source	10 as Cd	USEPA Methods 1 through 5 or 29	AAS ^b or per sampling method
Carbon Monoxide	Any industrial source	500 as CO	USEPA Method 3 or 10	Orsat Analysis or NDIR
Copper and its Cmpds.	Any industrial source	100 as Cu	USEPA Methods 1 through 5 or 29	AAS ^b or per sampling method
Hydrofluoric Acid and Fluoride Compounds	Any source other than manufacture of Aluminum from Alumina	50 as HF	USEPA Method 13 or 14 as appropriate	As per sampling method
Hydrogen Sulfide	i) Geothermal power plants ii) Geothermal Exploration And Well Testing iii) Any source other than (i) and (ii)	^{c, d} ^e 7 as H ₂ S	USEPA Method 11, 15 or 16 as appropriate	Cadmium Sulfide Method or per sampling method
Lead	Any trade, industry or process	10 as Pb	USEPA Methods 1 through 5 or 12 or 29	AAS ^b or per sampling method
Mercury	Any source	5 as elemental Hg	USEPA Methods 1 through 5 or 29 or 101	AAS ^b / Cold-Vapor Technique or Hg Analyzer
Nickel and its Cmpds. Except Nickel Carbonyl ^f	Any source	20 as Ni	USEPA Methods 1 through 5 or 29	AAS ^b or per sampling method

POLLUTANT	STANDARD APPLICABLE TO SOURCE	MAXIMUM PERMISSIBLE LIMITS (mg/NCM)	METHOD OF SAMPLING ^a	METHOD OF ANALYSIS ^a
NO _x	1) Manufacture of Nitric Acid 2) Fuel burning steam generators a) Existing Source b) New Source i) Coal-fired ii) Oil-fired 3) Diesel-powered electricity generators 4) Any source other than (1), (2) and (3) a) Existing Source b) New Source	2,000 as acid & NO ₂ calculated as NO ₂ 1,500 as NO ₂ 1,000 as NO ₂ 500 as NO ₂ 2,000 as NO ₂ 1,000 as NO ₂ 500 as NO ₂	USEPA Methods 1 through 4 and Method 7	Phenol-disulfonic acid Method or per sampling method
Particulates	1) Fuel Burning Equipment a) Urban ^g and Industrial Area ^h b) Other Area ⁱ 2) Cement Plants (kilns, etc.) 3) Smelting Furnaces 4) Other Stationary Sources ^j	150 200 150 150 200	USEPA Methods 1 through 5	Gravimetric per sampling method
Phosphorus Pentoxide ^k	Any source	200 as P ₂ O ₅	USEPA Methods 1 through 5 or 29	Spectrophotometry or per sampling method
Sulfur Oxides	1) Existing Sources a) Manufacture of Sulfuric Acid and Sulf(on)ation Process b) Fuel Burning Equipment c) Other Stationary Sources ^l 2) New Sources a) Manufacture of Sulfuric Acid and Sulf(on)ation Process b) Fuel Burning Equipment c) Other Stationary Sources ^l	2,000 as SO ₃ 1,500 as SO ₂ 1,000 as SO ₃ 1,500 as SO ₃ 700 as SO ₂ 200 as SO ₃	USEPA Methods 1 through 4 and 6 or 8 as appropriate	As per sampling method
Zinc and its Compounds	Any source	100 as Zn	USEPA Methods 1 through 5 or 29	AAS ^b or per sampling method

^a Other equivalent methods approved by the Department may be used.

^b Atomic Absorption Spectrophotometry.

^c All new geothermal power plants starting construction by 01 January 1995 shall control H₂S emissions to not more than 150 g/GMW-Hr.

^d All existing geothermal power plants shall control H₂S emissions to not more than 200 g/GMW-Hr.

^e Best available control technology for air emissions and liquid discharges. Compliance with air and water quality standards is required.

^f Emission limit of Nickel Carbonyl shall not exceed 0.5 mg/NCM.

^g Urban Area means a poblacion or central district of cities or municipalities having at least 50,000 population, or twin political subdivisions with contiguous boundary which essentially form one community whose population is more than 50,000 inhabitants. Inside these centers or population are some scattered industrial establishments.

^h Industrial Area means a well-defined, exclusive land use area in various stages of development that are primarily established for industrial subdivisions, manufacturing and other industry mixes with provisions for common support infrastructures, facilities and services such as roads, water supply, power supply, communication systems, housing, storm drainage, sanitary sewerage systems, industrial wastewater treatment facilities, etc. These areas which are usually from 200 to 500 hectares in size as registered with the (Housing and Land Use Regulatory Board (HLURB) or any other duly authorized government entities as industrial estates, parks or area. Export processing zones also fall under this category of land use.

ⁱ Other Areas means all areas other than an urban or industrial area.

^j Other Stationary Sources (particulates) means a trade, process, industrial plant, or fuel burning equipment other than thermal power plant, industrial boilers, cement plants, incinerators, smelting furnaces.

^k Provisional guideline.

^l Other Stationary Sources (sulfur oxides) refers to existing and new stationary sources other than those caused by the manufacture of sulfuric acid and sulfonation process, fuel burning equipment and incineration.

Section 2. Visible Emission Standards for Smoke and Opacity

Visible opacity standards for smoke are as follows:

- a) The opacity of light or dark smoke emitted from any emission point in all stationary sources shall be such that, when compared in the appropriate manner with the Ringelmann Chart method, or using USEPA Method 9 (40 CFR, Part 60, Appendix A), or an equivalent method approved by the Department through the Bureau, visible emissions shall not appear darker than shade 1 on the Ringelmann Chart, nor exceed 20% opacity using USEPA Method 9.
- b) Exceptions to the requirements stated herein may be allowed under the following circumstances: The opacity limit hereinbefore prescribed shall not apply to the emission of dark smoke for less than five (5) minutes in a period of one (1) hour provided that the total period of such emission shall not exceed an aggregate of fifteen (15) minutes in any twenty-four (24) hours; provided further, that at no time should the opacity be darker than shade 3 of the chart; and provided finally, that this provisions shall not apply to cases of dark emissions resulting from cold-start and up-set conditions. Measurements of opacity shall be made in the manner specified by the approved method employed for this purpose.

Section 3. Absence of Emission Standard for Other Air Pollutants

- (a) Where no emission or ambient standard is prescribed hereof for a specific air pollutant that is potentially harmful to public health and/or public welfare, the owner or operator of an industrial plant or stationary source shall conduct its operation or process by the best practicable means as may be necessary to prevent or minimize air pollution through the employment of cleaner production technology and sound environmental management practices.
- (b) The absence of the ambient air or emission standard for a specific air pollutant shall not preclude the Department through the Bureau to take appropriate action to control such pollutants to assure the health, welfare and comfort of the general population.

Section 4. Sampling Methods

Sampling for compliance purposes shall be conducted using the methods prescribed above or other equivalent method as approved by the Department through the Bureau. Sampling shall be

conducted under routine operating conditions at the facility. Operating conditions at the facility during compliance testing will be used by the Bureau to establish permit conditions under which the facility may operate.

Section 5. Miscellaneous Provisions and Equipment

(a) Stationary Fuel-Burning Equipment

- (1) The owner or operator of a stationary fuel-burning equipment shall, if so required by the Department through the Bureau, provide a means to the satisfaction of Secretary whereby a person in charge of such a plant or equipment may at all times ascertain without leaving the boiler room, furnace room, or control room, whether or not dark smoke is discharging from any stack or such installation, such mean may include one or more of the following:
 - a) Window or opening through which an unobstructed view of the top of the stack may be obtained from the boiler room, furnace room or control room;
 - b) A mirror so placed as to reflect the top of the stack, which reflection shall be visible from the boiler room, furnace room, or control room;
 - c) A smoke density indicator and alarm installed so as to indicate adequately in the boiler room, furnace room and control room the density of smoke being discharged;
 - d) A closed circuit television installation with the receiver located in the boiler room, furnace room, or control room;
 - e) Any similar device which may be approved by the Secretary.
- (2) All oil-burning equipment shall have heaters capable of heating oil to a temperature appropriate for the oil and burner.
- (3) The following major industries are required to install continuous emission monitoring systems (CEMS) for particulates and sulfur oxide emissions:
 - a) Fossil fuel-fired power plant over 10 MW rating (including NO_x);
 - b) Petroleum refinery, petrochemical industries (including NO_x);
 - c) Primary copper smelter (including NO_x);
 - d) Steel plant, ferro-alloy production facility (particulates only); and
 - e) Cement Plant (particulates only).
- (4) New and existing sources falling under paragraph (3) a), b), c) and d) and new sources falling under paragraph (3) e) shall comply with the requirements of installing CEMS upon the effectivity of these Implementing Rules and Regulations.
- (5) All existing sources falling under paragraph (3) e) shall comply with the requirements of installing CEMS within twenty-four (24) months from the effectivity of these Implementing Rules and Regulations. Application, installation and operation of the CEMS shall meet criteria provided in Rule X Section 5.

(b) Miscellaneous Equipment.

Re-heating furnaces, smoke ovens, bake ovens, coffee heaters, varnish kettles, paint booths and similar equivalent shall be so designed that when operating, there is no free flow of objectionable gases into the atmosphere. To minimize the escape of smoke, odors, fly ash or fumes, appropriate air pollution control facilities shall be installed.

Section 6. Review and Revision of Emission Standards

The Bureau shall provide industries, non-government organizations (NGOs) and other stakeholders the opportunity to participate in the formulation and revision of standards, determination of the technical feasibility of the revised standards, setting the schedule of implementation of the revised standards, and other related concerns. Pursuant to Section 19 of the Act, the Department through the Bureau shall review, or as the need arises, revise and publish emissions standards to further improve the emission standards for stationary sources of air pollution. Such emission standards shall be based on mass rate of emission for all stationary sources of air pollution based on internationally-accepted standards, but not be limited to, nor be less stringent than such standards and with the standards set forth in this Rule. The standards, whichever is applicable, shall be the limit on the acceptable level of pollutants emitted from a stationary source for the protection of the public's health and welfare.

Section 7. Harmonization with International Standards

In the review and revision of emission standards, the Bureau shall, as appropriate, endeavor to achieve the harmonization of national emissions standards with those set by regional bodies such as the Association of South East Asian Nations (ASEAN).

Section 8. Self-Monitoring Reports

Each existing stationary source shall submit to the Bureau Regional Office where the facility is located, a self-monitoring report of its emission rates, indicating the status of compliance with current standards. The self-monitoring report shall be submitted to the Bureau within six (6) months of the effectivity of these Implementing Rules & Regulations, and within six (6) months of each official revision of emission standards applicable to the source. The party or person responsible for the source shall assume responsibility for demonstrating proof of compliance, which the Bureau may subject to independent verification if it deems necessary.

Section 9. Consent Agreement

The Department, through the Pollution Adjudication Board (PAB) may reduce penalties or fines to be imposed upon stationary sources proven to exceed the emission rate requirements of its Permit to Operate or of these Implementing Rules and Regulations, provided that the person or party responsible for the source enters into a consent agreement with the Bureau, subject to confirmation by the PAB, in which the responsible party shall:

- (a) Implement an Environmental Management System (EMS) within eighteen (18) months of entering into said agreement using scope and procedures specified in Philippine National Standard 1701 on establishing an EMS;
- (b) Submit an Environmental Management Plan (EMP) derived from the EMS process within six (6) months of entering into a consent agreement. The EMP shall specify a timetable for attaining compliance with all environmental regulations as well as the means with which to accomplish compliance, with emphasis on pollution prevention methods and not limited to installation of pollution control devices;
- (c) Post a performance bond acceptable to the PAB, not to exceed P500,000 but not less than P50,000 depending on the size of the facility, which shall be forfeited upon failure to submit proof of an approved EMS within eighteen (18) months, and provided that an extension of not more than twelve (12) months may be allowed by the Bureau on meritorious grounds.

The consent agreement shall incorporate requirements for environmental performance through timetables and reporting of performance, in addition to commitments and procedures adopted in the EMP. The consent agreement shall be without prejudice to possible payment/liability for damages to third parties (e.g. private persons).

Section 10. Compliance Timetable Beyond Eighteen (18) Months

Sources proposing timetables longer than eighteen (18) months for reaching compliance shall be required to first conduct a public consultation before the consent agreement be finalized.

Section 11. Proof of an Environmental Management System

Proof of an approved EMS shall be in the form of an EMS audit report prepared internally by the person or party responsible for the facility, or one prepared by a third party EMS auditor. The audit report shall be prepared by a person or company certified under an international EMS standard such as ISO 14001 or an equivalent approved by the Bureau. This report, including a determination of the EMS's conformity to PNS 1701, shall be submitted for review and acceptance by the Bureau Regional Director within eighteen (18) months from the signing of a consent agreement.

Section 12. Failure to Comply with Consent Agreement

Failure of the stationary source to comply with the timetable specified in the consent agreement shall be sufficient ground for closure through a Cease and Desist Order (CDO) issued by the PAB. Further, the facility owner shall be subject to the reimposition of the original penalty (subject of the reduction) as well as additional appropriate penalties computed on a daily basis pursuant to Section 45 of the Act.

Section 13. Prohibited Acts

(a) Fugitive Particulates.

No person shall cause, let, permit, suffer or allow the emission of particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alternation, demolition or wrecking or industry related activities such as loading, storing or "handling," without taking reasonable precautions to prevent such emission. Such reasonable precaution shall include, but not be limited to, the following:

- (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structure, construction, operations, the grinding of rock, quarry or clearing of lands.
- (2) Application of asphalt, oil water, or suitable chemicals on roads, materials stockpiles, and other surface which create airborne dust problem; and
- (3) Installation and use of hoods fans and fabric filters or other suitable control devices to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

(b) Volatile Organic Compounds or Organic Solvent Emissions

No person shall store, pump, handle, process, unload or use in any process or installation, volatile compound or organic solvents without applying known existing vapor emission control devices or systems deemed necessary and approved by the Department through the Bureau.

(c) Nuisance

No person shall discharge from any source whatsoever such quantities of air contaminants or other material which constitute nuisance as defined under Articles 694 to 707 of Republic Act No. 385, otherwise known as the Civil Code of the Philippines.

(d) Open Burning

No person shall be allowed to burn any materials in any quantities which shall cause the emission of toxic and poisonous fumes. Such materials include but are not limited to plastic, polyvinyl chloride, paints, ink, wastes containing heavy metals, organic chemicals, petroleum related compound, industrial wastes, ozone depleting substances and other similar toxic and hazardous substances.

Further, no establishment, firm, company, government or private entity or organizations shall be allowed to burn or cause open burning of waste materials in their premises, area of jurisdiction, including recognized or unrecognized dumpsites in any quality or quantity. Violators, upon determination by the Department through the Bureau, shall be penalized in accordance with the provisions of Part XIII of these Implementing Rules and Regulations.

(e) General Restrictions

- (1) No plant or source shall operate at capacities which exceed the limits of operation or capability of a control device to maintain the air emission within the standard limitations imposed by the Act or by relevant permit conditions issued by the Department through the Bureau.
- (2) No person shall build, erect, construct, install, or implant any new source, or operate, modify, or rebuild an existing source, or by any other means release or take action which would result in, together with the concentrations of existing air pollutants, ambient air concentration greater than the ambient air quality standards specified in Section 12 (b) of the Act
- (3) No person shall build, erect install or use any article, machine, equipment or other contrivance, the use of which will conceal an emission which would otherwise constitute a violation of any of the provisions of these Implementing Rules and Regulations.
- (4) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the provisions of permit regulations of Rule XIX.
- (5) All pollution control devices and systems shall be properly and consistently maintained and correctly operated in order to maintain emission in compliance with the provisions and standards of Section 19 of the Act. No facilities shall be operated without the control equipment in proper operation, except with the permission of the Department through the Bureau when special circumstances arise.

RULE XXVI SOURCE SPECIFIC AMBIENT AIR QUALITY STANDARDS

Section 1. National Ambient Air Quality Standards

For any industrial establishment or operation, the discharge of air pollutants that result in airborne concentrations in excess of the National Ambient Air Quality Standards shown in Table 3 shall not be permitted. Sampling shall be done at the location of highest expected concentration. Location shall be determined using dispersion modeling. Bureau-approved techniques shall be followed in developing sampling plans. For example, the Bureau's Air Quality Monitoring Manual specifies that sampling shall be done at an elevation of at least two (2) meters above the ground level, and shall be conducted either at the property line or at a downwind distance of five (5) to twenty (20) times the stack height, whichever is more stringent. However, the Bureau may approve the adoption of a different procedure in the choice of the location of the monitoring equipment depending upon the physical surrounding and other relevant factors in the area where the sampling is to be conducted.

**Table 3
National Ambient Air Quality Standards for Source Specific Air Pollutants from
Industrial Sources/Operations**

Pollutants	Concentration ^a		Averaging Time (min)	Method of Analysis/Measurement ^c
	µg/NCM	Ppm		
Ammonia	200	.028	30	Nesselerization / Indo Phenol
Carbon Disulfide	30	0.01	30	Tischer Method
Chlorine and Chlorine cmpds expressed as CL ₂	100	0.03	5	Methyl Orange
Formaldehyde	50	0.04	30	Chromotropic Acid method or MBTH Colorimetric method
Hydrogen Chloride	200	0.13	30	Volhard Titration with Iodine solution
Hydrogen Sulfide	100	0.07	30	Methylene Blue
Lead	20		30	AAS ^b
Nitrogen Dioxide	375	0.20	30	Griess-Saltzman
	260	0.14	60	
Phenol	100	0.03	30	4-Aminoantipyrine
Sulfur Dioxide	470	0.18	30	Colorimetric-Pararosaline
	340	0.13	60	
Suspended Particulate Matter – TSP	300	--	60	Gravimetric
	PM-10	200	60	
Antimony	0.02 mg/NCM	--	30	AAS ^b
Arsenic	0.02 mg/NCM	--	30	AAS ^b
Cadmium	0.01 mg/NCM	--	30	AAS ^b

Pollutants	Concentration ^a		Averaging Time (min)	Method of Analysis/Measurement ^c
	µg/NCM	Ppm		
Asbestos	2 x 10 ⁶ Particulates/NC M (over 5 micrometer in size)	--	30	Light Microscopy
Sulfuric Acid	0.3 mg/NCM	--	30	Titration
Nitric Acid	0.4 mg/NCM	--	30	Titration

^a Ninety-eight percentile (98%) values of 30-min. sampling measured at 25°C and one atmosphere pressure.

^b Atomic Absorption Spectrophotometry.

^c Other equivalent methods approved by the Department through the Bureau may be used.

Section 2. Review of Ambient Air Quality Standards

The Bureau shall provide industries, non-government organizations (NGOs) and other stakeholders the opportunity to participate in the formulation and revision of standards, determination of the technical feasibility of the revised standards, setting the schedule of implementation of the revised standards, and other related concerns. The Bureau shall, on an annual basis, in coordination with other concerned agencies, review the list of Hazardous Air Pollutants and the National Ambient Air Quality Standards for Source Specific Air Pollutants under Section 12 of the Act and recommend to the Secretary of the Department the revision thereof when necessary to protect public health and safety, and general welfare.

Section 3. Publication of Revised Standards

Upon approval by the Secretary of the Department, the revised Ambient Air Quality Standards shall be published in a newspaper of general circulation and may be posted on a public internet website.

RULE XXVII AIR QUALITY CONTROL TECHNIQUES

Section 1. Air Quality Control Techniques

Simultaneous with the issuance of the Ambient Air Quality Guideline Values, the Bureau, through the National Research and Development Program contained in the Act, and upon consultation with the appropriate advisory committees, government agencies and LGUs, shall issue, and from time to time, revise information on air pollution control techniques. Such information shall include:

- (a) Best available technology and alternative methods of prevention, management and control of air pollution;
- (b) Best available technology economically achievable which refers to the technological basis/standards for emission limits applicable to existing, direct industrial emitters of non-conventional and toxic pollutants; and
- (c) Alternative fuels, processes and operating methods which will result in the elimination or significant reduction of emissions.

Such information may also include data relating to the cost of installation and operation, energy requirement, emissions reduction benefits, and environmental impact or the emission control technology.

Section 2. Air Quality Control Techniques Database

The Bureau may establish an Air Quality Control Techniques Database.

RULE XXVIII NON-BURN TECHNOLOGIES

Section 1. Incineration Prohibited

Pursuant to Section 20 of the Act, incineration, hereby defined as the burning of municipal, bio-medical and hazardous wastes, which process emits toxic and poisonous fumes is prohibited.

Section 2. Non-Burn Technologies

With due concern on the effects of climate change, the Bureau shall promote the use of state-of-the-art, environmentally-sound and safe thermal and non-burn technologies for the handling, treatment, thermal destruction, utilization, and disposal of sorted, un-recycled, un-composted, biomedical and hazardous wastes.

Non-burn technologies are technologies used for the destruction, decomposition or conversion of wastes other than through the use of combustion and which comply with at least one of the following conditions:

- a) The environment within the destruction chamber is free of Oxygen; or
- b) Fire is not used within the destruction chamber; or
- c) The source of heat is not fire; or
- d) A heat-conducting material or medium, whether of a solid, liquid, gaseous, sol or gel form, is used to destroy the waste.

Non-burn technologies may be used provided that the following conditions are strictly complied with:

- (a) Applicable emission standards are not exceeded;
- (b) Installation and approved use of CEMS measuring PM, NO₂, CO, Chlorine and temperature;
- (c) Compliance with all other relevant requirements of these Implementing Rules and Regulations. In cases where the requirements of this Rule are more restrictive than those of the other requirements of the Implementing Rules and Regulations, the more restrictive requirements shall apply.

Section 3. Emission Standards for Treatment Facilities Using Non-Burn Technologies

Emissions from treatment facilities using non burn technologies shall be deemed toxic and poisonous when they result from the processing of chlorinated compounds, or when they exceed the following emission standards set forth in Tables 4 and 5.

Table 4
Daily and Half Hourly Average Limits –Treatment Facilities Using Non-burn Technologies

Item	Daily Average Values	Half Hourly Average Values
Particulates (total dust)	10 mg/NCM	30 mg/NCM
Gaseous and vaporous organic substances, expressed as total organic carbon	10 mg/NCM	20 mg/NCM
Hydrogen chloride (HCl)	10 mg/NCM	60 mg/NCM
Hydrogen fluoride (HF)	1 mg/NCM	4 mg/NCM
Sulfur dioxide (SO ₂)	50 mg/NCM	200 mg/NCM
Nitrogen monoxide (NO) and Nitrogen dioxide (NO ₂), expressed as nitrogen dioxide for incineration plants with a capacity exceeding 3 tonnes per hour	200 mg/NCM	400 mg/NCM
Nitrogen monoxide (NO) and nitrogen dioxide (NO ₂), expressed as nitrogen dioxide for incineration plants with a capacity of 3 tonnes per hour or less	300 mg/NCM	--
Ammonia	10 mg/NCM	20 mg/NCM

Table 5
Limits for Metals, Dioxins and Furans - Treatment Facilities Using Non-burn Technologies

Item	Average Values^a
Cadmium and its compounds, expressed as cadmium (Cd)	total 0.05mg/NCM
Thallium and its compounds, expressed as thallium (Tl)	
Mercury and its Compounds, expressed as mercury (Hg)	0.05 mg/NCM
Antimony and its compounds, expressed as antimony (Sb)	total 0.5 mg/NCM
Arsenic and its compounds, expressed as arsenic (As)	
Lead and its compounds, expressed as lead (Pb)	
Chromium and its compounds, expressed as chromium (Cr)	
Cobalt and its compounds, expressed as cobalt (Co)	
Copper and its compounds, expressed as copper (Cu)	
Manganese and its compounds, expressed as manganese (Mn)	
Nickel and its compounds, expressed as nickel (Ni)	
Vanadium and its compounds, expressed as vanadium (V)	
Tin and its compounds, expressed as tin (Sn)	
Dioxins and Furans	0.1 nanogram/NCM

^a These average values cover gaseous and the vapor forms of the relevant heavy metal emission as well as their compounds. Provided, that the emission of dioxins and furans into the air shall be reduced by the most progressive techniques. The average values shall be measured over a sample period of a minimum of four (4) hours and a maximum of eight (8) hours, except that all averages of dioxins and furans shall be measured over a sample period of a minimum of six (6) hours and maximum of eight (8) hours.

Section 4. Non-applicability of the Prohibition

- (1) The prohibition shall not apply to traditional small-scale method of community/neighborhood sanitation “siga”, traditional, agricultural, cultural, health, and food preparation and crematoria.

Section 5. Phase-out of Incinerators Dealing with Biomedical Wastes

Existing incinerators dealing with a biomedical wastes shall be phased out on or before 17 July 2003 provided that in the interim, such units shall be limited to the burning of pathological and infectious wastes, and subject to close monitoring by the Bureau. After the said grace period, facilities that process or treat biomedical wastes shall utilize state-of the art, environmentally-sound and safe non-burn technologies.

Section 6. Monitoring.

There shall be public participation in the monitoring of thermal treatment facilities.

PART VIII POLLUTION FROM OTHER SOURCES

RULE XXIX POLLUTION FROM OTHER SOURCES - GENERAL

Section 1. Ban on Smoking

The Local Government Units (LGUs) shall, within six (6) months from the effectivity of these Implementing Rules and Regulations, implement or enforce a ban on smoking inside a public building or an enclosed public place including public vehicles and other means of transport or in any enclosed area outside of one's private residence, private place of work or any duly designated smoking area which shall be enclosed.

Section 2. Regulation of Other Sources

The DOTC shall regulate and implement emission standards on mobile sources other than those referred to under Section 21 of the Act. For this purpose, the Department through the Bureau, shall formulate and establish the necessary standard for these other mobile sources. The DOTC shall collect fines and penalties provided for under Section 46 of the Act from those found to be in violation of the applicable emissions standards for other mobile sources.

PART IX POLLUTION FROM MOTOR VEHICLES

RULE XXX MOTOR VEHICLE COVERAGE

Section 1. Scope

These provisions, in the interest of public safety and conservation of the environment, are applicable with respect to:

- (a) Manufacture, local assembly or importation into the country of new motor vehicle as classified under PNS 1891 shall be covered by a Certificate of Conformity (COC) to be issued pursuant to the following sections of this Rule, provided, however, that those motor vehicle types already covered by the COC at the time of the effectivity of these rules shall not be

subject to these provisions unless the Department finds justifiable reason to suspend, cancel or revoke such a certificate;

(b) Enforcement of permissible emission levels of motor vehicles to be manufactured, marketed and/or operated in the country;

(c) Implementation of the National Motor Vehicle Inspection and Maintenance Program including accreditation and authorization of private emission testing centers and certification of inspectors and mechanics, and;

(d) Roadside inspection of motor vehicles.

RULE XXXI EMISSION CONTROL FOR NEW MOTOR VEHICLES

Section 1. Certificate of Conformity

A COC shall be issued by the Department through the Bureau to a motor vehicle manufacturer, assembler, or importer certifying that a motor vehicle type complies with the numerical emission standards in this Rule, using the relevant ECE test procedures or their equivalent as approved by the Department. No new motor vehicle shall be allowed initial registration unless a valid COC issued by the Department through the Bureau is granted. New motor vehicles shall refer to the following:

a) Motor vehicles designed and manufactured in the Philippines using brand new engines and spare parts;

b) Motor vehicles assembled in the Philippines using original and brand new parts and components imported into the country completely knocked down (CKD);

c) New motor vehicles completely built up (CBU) imported into the country.

The emission test for type approval shall be carried out by the DOTC/LTO under the policy, regulation and guidelines supervision of the Department. The facility where the tests will be conducted shall be chosen by the Department utilizing the motor vehicle type approval system testing center of the DOTC/LTO. It shall also have visitorial powers over the LTO Motor Vehicle Inspection Station and Vehicle Type Approval System Testing Center where these tests are carried out.

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 authenticated by the Philippine Embassy/Consulate of the country of origin or manufacture of subject motor vehicle shall be valid and sufficient.

Section 2. Transitory Emission Limits

As a condition for the issuance of a COC, exhaust emission limits for new motor vehicle types, to be introduced into the market up to 31 December 2002, shall not exceed the following:

For cars and light duty motor vehicles, the limits for emission of gaseous pollutants as a function of given reference mass shall be as provided hereunder:

Table 6
Exhaust Emission Limits of Gaseous Pollutants for Cars and Light Duty
Motor Vehicles (Reference No. ECE Reg. 15-04)

Reference Mass (kg)	CO g/test		HC + NO _x g/test	
	Type Approval	Conformity of Production	Type Approval	Conformity of Production
Type I Test				
750	58	70	19.0	23.8
751 – 850	58	70	19.0	23.8
851 – 1020	58	70	19.0	23.8
1021 – 1250	67	80	20.5	25.6
1251 - 1470	76	91	22.0	27.5
1471 – 1700	84	101	23.5	29.4
1701 – 1930	93	112	25.0	31.3
1931 – 2150	101	121	26.5	33.1
2150	110	132	28.0	35.0
All Motor Vehicles Type II Test	Maximum Concentration of CO at end of last urban cycle = 3.5%			
All Motor Vehicles Type III Test	No Crankcase Emissions Permitted			

For medium and heavy duty motor vehicles with compression-ignition engine, the limit for the emission of gaseous pollutants and smoke shall be as provided in Table 7 and Table 8.

Table 7
Exhaust Limits of Gaseous Pollutants for Medium and Heavy Duty Motor Vehicles Equipped
with Compression-Ignition Engines (Reference No. ECE Reg. 49-01)

CO (g/kWh)	HC (g/kWh)	NO _x (g/kWh)
11.2	2.4	14.4

Table 8
Smoke Emission Limits Under Steady State Conditions for Heavy Duty Motor Vehicles
Equipped with Compression-Ignition Engines (Reference No. ECE Reg. 24-03)

Nominal Flow (liters/second)	Absorption Coefficient (m ⁻¹)
42	2.26
100	1.495
200	1.065

Opacity under free acceleration should not exceed the approved level by more than 0.5 m⁻¹.

Fuel evaporative emissions for spark ignition engines shall not exceed 2.0 grams per test.

For motorcycles, CO emissions at idle shall not exceed 6% for all types.

Section 3. Test Procedures to Determine Exhaust Emissions Under Transitory Standards

The test procedures for the determination of gaseous exhaust emissions under the transitory standards shall be as follows:

For cars and light duty motor vehicles	ECE Regulation 15-04 “Uniform provision concerning the approval of motor vehicle equipped with positive-ignition engine or with compression-ignition engine with regard to emission of gaseous pollutant by the engine”
For medium and heavy duty motor vehicles with compression-ignition engines	ECE Regulation 49-01 “Uniform provision concerning the approval of compression ignition (C.I.) engines and motor vehicles with C.I. engines with regards to the emission of pollutant by the engine”
For the determination of CO emission	Test procedure for the determination of CO emission shall be at idling speed.

Section 4. Emission Standards Effective Year 2003

As a condition for issuance of a COC, exhaust emission limits for motor vehicle types to be introduced into the market beginning 01 January 2003 shall refer to the provisions of Sec. 21 of the Act, which is equivalent to Euro 1, as follows:

**Table 9
Emission Limits for Passenger Car/Light Duty Vehicle Type Approval
(Directive 91/441/EEC)**

CO (g/km)		HC + NOx (g/km)		PM ¹ (g/km)	
Type Approval	Conformity of Production	Type Approval	Conformity of Production	Type Approval	Conformity of Production
2.72	3.16	0.97	1.13	0.14	0.18

¹For compression-ignition engines only.

Table 10
Emission Limits for Passenger/Light Commercial Vehicles as a Function
of the Given Reference Mass Type Approval
(Directive 93/59/EEC)

Class of Vehicle	CO (g/km)		HC+NOX (g/km)		PM ¹ (g/km)	
	Type Approval	Conformity of Production	Type Approval	Conformity of Production	Type Approval	Conformity of Production
Class 1 (<1250 Kg)	2.72	3.16	0.97	1.13	0.14	0.18
Class 2 (1251<>1700)	5.17	6.0	1.40	1.6	0.19	0.22
Class 3 (>1700 Kg)	6.9	8.0	1.7	2.0	0.25	0.29

¹For Compression ignition vehicles only.

Table 11
Emission Limits for Heavy Duty Vehicle Type Approval
(Directive 91/542/EEC)

Type Approval	CO (g/kWh)		HC (g/kWh)		NOx (g/kWh)		PM ^{1,2} (g/kWh)	
	Conformity of Production	Type Approval	Conformity of Production	Type Approval	Conformity of Production	Type Approval	Conformity of Production	
4.5	4.9	1.10	1.23	8.0	9.0	0.36	0.4	

¹For Compression ignition vehicles only.

²For engines of 85 kW or less, the limit value for particulate emissions is increased by multiplying the quoted limit by a coefficient of 1.7.

Table 12
Smoke Emission Limits Under Steady State Conditions (Reference No. ECE Reg. 24-03)

Nominal Flow (liters/second)	Light Absorption Coefficient ¹ (m ⁻¹)
42	2.26
100	1.495
200	1.065

¹For Compression ignition vehicles only.

Opacity under free acceleration should not exceed the approved level by more than 0.5 m⁻¹.

Table 13
Emission Limits for Motorcycle Type Approval with 4-stroke Engines
ECE Regulation 40.01

Reference Weight R(1) (kg)	CO (g/km)		HC (g/km)	
	Type Approval	Conformity of Production	Type Approval	Conformity of Production
<100	17.5	21	4.2	8
100-300	$(17.5+17.5(R-100))/200$	$21+21(R-100)/200$	$4.2+1.8(R-100)$	$(6+2.4(R-100))/200$
>300	35	42	8	9.4

Notes: 1) Reference weight (R) = Motorcycle weight + 75 kg.

Table 14
Emission Limits for Motorcycle Type Approval with 2-stroke Engines
ECE Regulation 40.01

Reference Weight R(1) (kg)	CO (g/km)		HC (g/km)	
	Type Approval	Conformity of Production	Type Approval	Conformity of Production
<100	12.8	16	8	10.4
100-300	$(12.8+19.2(R-100))/200$	$16+24(R-100)/200$	$8+4(R-100)$	$(10.4+6.4(R-100))/200$
>300	32	40	12	18.8

Notes: 1) Reference weight (R) = Motorcycle weight + 75 kg.

Table 15
Emission Limits for Mopeds Type Approval
ECE Regulation 47

Vehicle type	2-Wheeled		3-Wheeled	
	CO g/km	HC g/km	CO g/km	HC g/km
Licensing	8.0	5.0	15.0	10.0
Production	9.6	6.5	18.0	13.0

(Mopeds are vehicles of less than 400 kg equipped with an engine having a cylinder capacity of less than 50 cubic centimeters.)

For mopeds, CO emissions at idle shall not exceed 6% for all types.

Fuel evaporative emission for spark-ignition engines shall not exceed 2.0 grams hydrocarbons per test. Likewise, it shall not allow any emission of gases from crankcase ventilation system into the atmosphere.

Durability of pollution control equipment for spark-ignition and compression-engines shall conform to the deterioration factor prescribed in the test procedure.

The standards set forth in the above paragraphs of this section refer to the exhaust emitted over a driving schedule or engine speed, evaporative emission, crankcase ventilation emission and

durability of pollution control equipment as set forth in the test procedures indicated in the succeeding section.

Section 5. Test Procedures to Determine Exhaust Emissions and Other Standards Effective in Year 2003

The test procedures for the determination of emissions and other standards effective in 2003 shall be as follows:

<p>For exhaust emissions, fuel evaporative emission, emission of crankcase gases and durability of pollution control equipment for cars and light duty motor vehicles</p>	<p>ECE Regulation 83-01/02, series of amendment approval B and C: “Uniform provision concerning the approval of vehicles with regards to the emission of gaseous pollutants by the engine according to engine fuel standards”</p> <p>Approval B - Limitation of emission of gaseous pollutant by the engine, evaporative emission, crankcase emission and durability of motor vehicle fueled with unleaded petrol.</p> <p>Approval C - Limitation of emission of gaseous and particulate pollutants, crankcase emission and durability of pollution control devices of motor vehicles fueled with diesel fuel.</p>
<p>For Medium and Heavy Duty Motor Vehicles with compression-ignition engines</p>	<p>ECE Regulation 49-01/02, series of amendment (49/02) “Uniform provision concerning the approval of compression-ignition (C.I) engines and motor vehicles equipped with C.I. engine with regards to the emission of pollutants by the engine”</p>
<p>For the determination of CO emission</p>	<p>The test procedure for the determination of CO emission shall be at idling speed as provided in the Emission Test Procedure for Vehicles Equipped with Spark-Ignition Engines and the Free Acceleration Test Procedure for Vehicles Equipped with Compression-Ignition Engines</p>

Other equivalent test procedures as approved by the Department may be utilized.

Section 6. General Requirements

Every motor vehicle manufacturer, assembler or importer shall provide all new motor vehicles with a service manual or written instructions for the proper use and maintenance of the motor vehicle, including all relevant service information or specifications to ensure proper functioning of the emission control system and compliance with emission standards.

All newly-manufactured or imported gasoline-fuelled motor vehicles, including motorcycles and mopeds, to be introduced into the market or imported into the Philippines shall be designed to operate on unleaded gasoline upon the effectivity of these Implementing Rules and Regulations.

Section 7. Application for Certificate of Conformity

The application for a COC shall be submitted to the Bureau by the motor vehicle manufacturer, assembler, importer or their duly authorized representatives. It shall be accompanied by the following particulars in triplicate copies:

- (a) Complete and detailed descriptions 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 authenticated by the Philippine Embassy/Consulate of the country of origin or manufacture of subject motor vehicle shall be valid and sufficient); and
- (e) Other particulars which may be required by the Department.

Section 8. Filing Fees for Application for COC

A fee to be determined by the Department through the Bureau shall be paid upon the filing of the COC application. Filing fees for applications that have been denied shall not be refundable, nor applicable to subsequent applications.

Section 9. Approval of Application

Upon a determination that the vehicle type meets the general requirements of this Rule and upon payment of the corresponding application fees, the Bureau shall issue a COC within a reasonable time.

Section 10. COC as Requisite for Registration

New motor vehicles shall be registered with the LTO of the DOTC only upon presentation of a copy of a valid COC issued by the Bureau.

For purposes of registration, the COC shall cover only:

- (a) new vehicle types described in the COC, or
- (b) new vehicle types which conform in all material respects to the design specifications applicable to the particular vehicle type as described in the application for COC and which are produced in accordance with the particulars of a valid COC.

Section 11. Validity of COC

For purposes of vehicle registration, the COC 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.

Modifications of the brake system, steering, air conditioning, suspension and interior and exterior trimmings shall not be construed as a change in vehicle type and there will be no need to apply for a new COC.

Section 12. Consent to Inspection as Condition of COC.

To ensure that new motor vehicles manufactured, assembled, or imported conform in all material respects to the design specifications described in the COC, it shall be a condition of the COC that the manufacturer, assembler or importer shall consent to all the inspections by the Department through the Bureau of the vehicle engine, emission control system, among others, of the new motor vehicles covered by the COC.

Section 13. Ground for Revocation of COC.

Failure to comply with any of the requirements of this Rule shall justify the revocation or suspension of the COC.

Section 14. Emission Control Labeling

The manufacturer, assembler or importer of any motor vehicle or motor vehicle engine, subject to the applicable emission standards prescribed by the Department, shall affix a permanent legible label, and the vehicle identification number (VIN) plate of the type and in a manner described below.

The label, of durable material, shall be affixed by the manufacturer, assembler or importer in such a manner that it cannot be removed without defacing such label. It shall be affixed in a readily visible position in the engine compartment or any conspicuous area under the hood, or under the seat in case of a motorcycle.

The label shall contain the following information lettered in the English language in block letters and numerals with a legible print size, and of a color that contrasts with the background of the label:

- (a) The label heading: Vehicle Emission Control Information;
- (b) Full corporate name and trademark;
- (c) Engine type displacement in metric units;
- (d) International emission regulation code and/or this Act; and
- (e) Engine tune-up specification and adjustment as recommended by the manufacturer including but not limited to idle speed(s), ignition timing, the idle air-fuel mixture setting procedure and value (e.g. idle CO, idle air-fuel ratio, idle speed drop), high idle speed, initial injection timing and valve lash (as applicable) as well as other parameters deemed necessary by the manufacturer.

Section 15. Submission of Vehicle Identification Number.

The manufacturer, assembler or importer of any motor vehicle covered by a COC under these Implementing Rules and Regulations shall submit to the Bureau, not later than sixty (60) days after its manufacture or entry into the country, the vehicle engine number, chassis number, engine type, vehicle type and color. Likewise, a sticker with the Department logo, COC number and date of issue and a brief statement that the vehicle complies with the provisions of the Act and its Implementing Rules and Regulations shall be conspicuously displayed on the front windshield of the motor vehicle.

RULE XXXII EMISSION CONTROL FOR IN-USE VEHICLES

Section 1. Emission Standards for In-Use Vehicles

All in-use motor vehicles, and vehicles with updated/enhanced engine whose chassis are pre-registered with DOTC/LTO will only be allowed renewal of registration upon proof of compliance of the emission standard described below. The DOTC/LTO shall conduct the vehicle test utilizing the Motor Vehicle Inspection Station (MVIS) or its duly authorized and accredited inspection centers consistent with the R.A. 7394 otherwise known as the Consumer Act of the Philippines within sixty (60) days prior to date of registration.

Emission test procedures as given in Annex B and Annex C for registered or in-use motor vehicles equipped with spark-ignition or compression-ignition engines, respectively, should be strictly followed.

For vehicles with spark-ignition engines except motorcycles, the following emission standards shall apply:

Table 16
Emission Standards for Vehicles with Spark-Ignition Engines (Gasoline) Except Motorcycles

Vehicle Category	CO (% by volume)	HC (ppm as hexane)
Registered prior to January 1, 1997 At Idle	4.5	800
Registered on or after January 1, 1997 but before January 1, 2003 At Idle	3.5	600
Registered on or after January 1, 2003 At Low Idle At High Idle (rpm > 2,500)	0.5 0.3 ($\lambda = 1 \pm 0.03$)*	100

* or in accordance with manufacturer's specification

For vehicles with compression-ignition engines, the following emission standards shall apply:

Table 17
Emission Standards for Vehicles with Compression-Ignition Engines (light absorption coefficient, m⁻¹)*

	Naturally Aspirated	Turbo charged	1,000 m increase in elevation
Registered for the first time prior to December 31, 2002	2.5	3.5	4.5

Registered for the first time on or after January 1, 2003	1.2	2.2	3.2
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* Using the free acceleration test.

For motorcycles registered for the first time on or before December 31, 2002, CO emissions at idle shall not exceed 6.0%. For motorcycles registered for the first time after December 31, 2002 CO emissions at idle shall not exceed 4.5%.

Section 2. Emission Standards for Rebuilt Vehicles and Imported Second Hand Vehicles

No rebuilt or second hand-CBU imported into the country or pre-registered vehicles retrofitted with second hand engines shall be allowed registration or renewal of registration without valid Certificate of Compliance to Emission Standard (CCES) issued by the DOTC.

As a condition for the issuance of a CCES, exhaust emission standards of vehicles enumerated previously shall not exceed the standards described below.

As a requirement for the issuance of a CCES by DOTC for imported second hand vehicles, a Certificate of Emission Compliance duly authenticated by the Philippines Embassy/Consulate from the country of origin shall be valid and sufficient. The DOTC may however seek verification through actual testing in the MVIS.

In the case of locally rebuilt vehicles, a CCES issued by the DOTC on the basis of an inspection by the DOTC Vehicle Type Approval System, if available, or initially by LTO MVIS, is required.

The DTI through the Bureau of Import Services (BIS) shall formulate regulations and guidelines that will ensure rebuilt and imported second hand motor vehicles and engines will satisfy the emission standards for rebuilt and imported second hand motor vehicles as provided in these Implementing Rules and Regulations.

Table 18
Emission Standards for Rebuilt Vehicles and Imported Second Hand Vehicles*

	CO ^a	HC ^a	Smoke ^b [turbocharged]
Registered for the first time prior to December 31, 2002 At Idle	3.5%	500 ppm	2.5 [3.5] m ⁻¹
Registered for the first time on or after January 1, 2003 At Idle	0.5%	100 ppm	2.5 [3.5] m ⁻¹

a – For spark-ignition (gasoline-fueled) motor vehicles

b – For compression-ignition (diesel-fueled) motor vehicles; figure in brackets relate to turbocharged vehicles.

* If the in-use emission standard of the country of origin is more stringent than these maximum limits, it will supersede them.

Section 3. Test Procedures for Measurement of Exhaust Emission

The Department shall prescribe the type of smoke opacity meter to be used in the emission testing of vehicles with diesel engines.

The test procedures for measurement of exhaust emissions for in-use motor vehicles with spark-ignition engines and compression-ignition engines are described in Annexes B and C.

Section 4. Control of Emissions from In-use Vehicles

Pursuant to Section 21(d) of the Act, the DTI, DOTC/LTO, and the Department shall develop and implement the National Motor Vehicle Inspection and Maintenance Program that will ensure the reduction of emissions from motor vehicles and promote the efficient and safe operation of motor vehicles. The inspection and maintenance program shall require all vehicles, as a requisite for renewal of registration, to undergo mandatory inspection to determine compliance with the in-use emission standards. The DOTC through LTO and/or DOTC designated enforcement units shall also establish a roadside inspection system to ensure that vehicles comply with the in-use emission standards.

The National Motor Vehicle Inspection and Maintenance Program is described in detail in Rule XXXIV and the Roadside Inspection System is described in Rule XXXV.

Section 5. Use of tamper-resistant odometers and fuel management systems

Pursuant to Section 21 of the Act, the DTI shall prescribe regulations requiring the disclosure of odometer readings and the use of tamper-resistant odometers for all motor vehicles including tamper-resistant fuel management systems for the effective implementation of the inspection and maintenance program.

Section 6. Useful Life of For-Hire Vehicles

Pursuant to Section 22 of the Act, the DTI shall promulgate the necessary regulations prescribing the useful life of vehicles and engines including devices in order to ensure that such vehicles will conform to the emission they were certified to meet. These regulations shall include provisions for ensuring the durability of emission devices. For considerations of public health and welfare, the Department, DTI, DOTC/LTO, NEDA and DOF may develop and implement a program to ensure for-hire vehicles to continue to meet emission standards hereto described.

RULE XXXIII REVIEW AND REVISION OF STANDARDS

Section 1. Review and Revision of Standards

To further improve the emission standards, the Department through the Bureau, in coordination with the DOTC/LTO, shall review the standards every two (2) years or as the need arises. Where necessary to achieve substantial improvement in air quality for the health, safety and welfare of the general public, the Department through the Bureau shall revise the exhaust emission standards for new and in-use motor vehicles. The revised standards must be published in a newspaper of general circulation or be filed in triplicate copies with the University of the Philippines (UP) Law Center pursuant to Presidential Memorandum Circular No. 11 dated 09 October 1992.

Section 2. Participation of Stakeholders

The Department shall provide the motoring public, automotive industry, non-government organizations (NGOs) and other stakeholders the opportunity to participate in the formulation and revision of standards, determination of the technical feasibility of the revised standards, setting the schedule of implementation of the revised standards, and other related concerns.

Section 3. Harmonization with International Standards

In the review and revision of emission standards, the Department shall endeavor to achieve the harmonization of national emission standards with internationally-accepted standards.

The Department, in coordination with the DOTC and DTI, may adopt or formulate the functional equivalence of the emission limits and test procedures. "Functional equivalence" means exhaust emission limits and test procedures whose numerical values are almost the same or identical with other types of emission limits and test procedures.

The Department, in coordination with DOTC and DTI, and in consultation with the motor vehicle manufacturers and other stakeholders, shall study the feasibility of adopting EURO II or III standards or other appropriate standards in the Philippines to further reduce emissions from motor vehicles.

RULE XXXIV NATIONAL MOTOR VEHICLE INSPECTION AND MAINTENANCE PROGRAM

Section 1. National Motor Vehicle Inspection and Maintenance Program.

All private in-use motor vehicles and vehicles with updated/enhanced engine whose chassis are pre-registered with Land Transportation Office (LTO) will only be allowed renewal of annual registration when, upon inspection by the LTO or other authorized private Motor Vehicle Inspection Station (MVIS), such vehicles meet the in-use emission standards set forth in Section 1 of Rule XXXII hereof. The LTO or other authorized MVIS shall conduct the vehicle tests for emissions.

Public Utility Vehicles submitted to DOTC/LTO for renewal of registration shall only be allowed upon presentation of a valid Vehicle Inspection Report issued on the basis of the inspection following the standard described hereto from the MVIS or its authorized testing center. The Vehicle Inspection Report shall be valid for a maximum of six (6) months.

Emission tests may be conducted within sixty (60) days prior to the renewal of registration. The results of such test shall be presented within sixty (60) days from the date of the test and may be presented to the LTO motor vehicle registration offices as a prerequisite to renewal of registration.

Section 2. Phased Implementation

The DOTC/LTO shall ensure that the Motor Vehicle Inspection System shall be fully operational in Metro Manila by January 2003. Nationwide implementation shall follow in twelve (12) to eighteen (18) months thereafter.

The vehicle inspection will be initially conducted in the LTO-operated MVIS or LTO Motor Vehicle Registration Centers. Priority shall be given to the immediate testing of diesel-powered vehicles.

Section 3. DOTC Authorization and DTI Accreditation of Private Emission Testing Centers

Emission testing of vehicles as a consequence of roadside inspection, for voluntary inspection after vehicle maintenance, or for rebuilt and imported second hand vehicles and engines, may be done in a private emission testing center. Private emission testing centers shall be commissioned by the Government through accreditation by DTI and authorization by DOTC. The DTI and DOTC shall accredit and authorize emission testing centers in accordance with the procedural guidelines thereon.

In order to accommodate all vehicles for emission testing, the DOTC may authorize private emission testing centers previously accredited with the DTI. Such testing centers shall be authorized to conduct emission tests on vehicles apprehended for non-compliance with the in-use emission standards. The DOTC shall issue the procedural guidelines on the authorization process. Pursuant to its standard-setting functions, the Department is responsible for regulating the specifications of the emission testing equipment to be used by private emission testing centers. The DTI shall ensure that these specifications are met by the accredited private emission testing centers.

In seeking authorization from DOTC, qualified persons may file an application with the DOTC through LTO or its designated agency, to be authorized as an emission testing center. The applicant must comply with the requirements of area, trained personnel, adequate equipment and facilities, and submit the documentary requirements as may be required by the DOTC in subsequent regulations. The facilities shall be inspected prior to the issuance of the authorization to determine compliance with the authorization requirements.

To obtain accreditation from the DTI, an application form shall be submitted by the applicant to the DTI Provincial Office located in the province where the applicant operates or resides. The applicant shall comply with the accreditation requirements and submit its organizational manual to the DTI. The facilities of the applicant shall then be inspected. Upon a favorable recommendation of the DTI Evaluation Panel / Committee, the Director of DTI Provincial Office shall approve the application and issue a certification to the applicant.

The accredited testing center shall make available to DTI or its appointed assessors all documents and shall allow the latter to inspect its facilities.

The accredited emission testing center must secure the authorization of the DOTC to conduct emission tests on vehicles apprehended for non-compliance with the in-use standards.

To facilitate the process of accreditation and authorization, the DOTC and DTI shall enter into an inter-agency agreement to develop and implement a uniform procedure for accreditation and authorization of emission testing centers. The DOTC and DTI shall study, among others, (1) the creation of a "one-stop shop" where an applicant may complete the process of accreditation and authorization, (2) the imposition of one fee, (3) the use of a single application form for both accreditation and authorization, and (4) the issuance of a single certificate of accreditation and authorization signed by both DOTC and DTI representatives.

Section 4. Certification of Institutions and Instructors; Licensing of Service Centers and Technicians

The DTI shall also develop and implement standards and procedures for the certification of training institutions, instructors, and facilities and for the licensing of qualified service centers and their technicians as prerequisite for performing the testing, servicing, repair and the required adjustment to the vehicle emission system. Vehicles that fail the emission test may be sent to

accredited repair shops for repair of motor vehicle engines, exhaust system and pollution control devices.

These facilities shall be equipped with standard automotive repair tools, standard spare parts and pollution test equipment conforming to applicable ECE, ISO or SAE standards. It is also required that these repair shops or service stations shall have highly skilled mechanics and/or technicians who have on-the-job training certificates from TESDA, local assemblers and manufacturers of motor vehicles.

RULE XXXV ROADSIDE INSPECTION OF MOTOR VEHICLES

Section 1. Roadside Inspection

Vehicles found emitting excessive smoke while operating in any public highway shall be subjected to an emission test by properly-equipped DOTC through LTO and/or DOTC-designated enforcement unit(s) and/or its deputized agents. The procedure for the apprehension of non-compliant vehicles and the deputation of agents to perform roadside inspection are set forth in Section 4 of this Rule.

Section 2. Agency Responsible for Enforcement

Pursuant to Section 46 of the Act, the DOTC, through LTO or DOTC-designated enforcement unit(s) shall establish a roadside inspection system to ensure that vehicles comply with the in-use emission standards set forth in these Implementing Rules and Regulations

The DOTC shall establish and chair an oversight committee for the purpose of monitoring smoke belching violations. Representatives from concerned government agencies, relevant sector organizations and civil society shall compose the membership of the oversight committee headed by the LTO.

Section 3. Deputation

The DOTC through LTO or DOTC- designated enforcement unit(s) may deputize qualified government employees, LGUs, government agencies and private entities to conduct roadside inspection and to apprehend vehicles which do not comply with the in-use standards set forth in these Implementing Rules and Regulations.

The deputized agents shall undergo a mandatory training on emission standards and regulations. For this purpose, the Department, together with the DOTC through LTO or DOTC-designated enforcement unit(s), DTI, DOST, the Philippine National Police (PNP) and other concerned agencies and private entities shall design a training program. The DOTC through LTO or its designated enforcement unit(s), together with the Department shall oversee the training program. This program shall include training in the correct use, maintenance and calibration of smoke testing equipment. No individual shall be deputized without satisfactorily completing the training.

Section 4. Apprehension and Impounding of Vehicles Exceeding Emission Limits

Pursuant to Section 46 of the Act, the procedure for apprehension and impounding of motor vehicles which emit pollutants beyond the allowable limits shall be as follows:

- a) A vehicle suspected of violation of emission standards through visual signs shall be flagged down by the apprehending officer.

- b) The apprehending officer shall conduct an emission test of the vehicle using portable emission testing equipment and using test procedures given in Annex B and Annex C, to determine whether the vehicle complies with the emission standards. Should the results show an exceedance of the emission limits, the computerized print-out, or other test result generated by the portable emission testing equipment shall serve as prima facie evidence of violation of the emission standards.
- c) Should the test result show that there is an exceedance of the standards, a ticket will be issued to the driver and a warrant of constructive or actual distraint to any owner of the motor vehicle as provided for in Republic Act 4136 shall commence unless the vehicle has been previously found violating the standards three (3) or more times within the last 365-day period. In the latter case, the motor vehicle registration shall be suspended for a period of one (1) year.
- d) Upon payment of the fine at the DOTC through LTO or DOTC- designated enforcement unit(s) or deputized agency or private entity, the vehicle plate(s) will be surrendered to the apprehending officer and the driver will be issued a temporary pass allowing him to take possession of the vehicle for the purpose of undertaking the needed repairs within a period not later than seven (7) days from the date the vehicle is temporarily released.
- e) Motor vehicles released for purposes of repairs shall not be operated or used in public roads except for the purpose of transporting the same to the service center for repairs and to the authorized emission testing center for emission testing.
- f) When the repairs are made, the vehicle must undergo an emission test at a DOTC/LTO testing center or its authorized and accredited emission testing center to ascertain if it already meets the emission standards.
- g) Once the vehicle meets the standards, the DOTC/LTO testing center or its authorized and accredited emission testing center shall issue a Certificate of Emission Compliance to the driver of the vehicle. The CEC will have no validity period, its sole purpose is to secure the release of the impounded vehicle or the vehicle license plates, whichever is applicable and which were confiscated as a consequence of that specific violation.
- h) Upon presentation of the Certificate of Emission Compliance, the driver shall recover his vehicle or his vehicle plates, whichever is applicable, from the DOTC through LTO and/or DOTC- designated enforcement unit(s) which has custody over the vehicle or vehicle plates.

Further refinement of the apprehension procedure stated in the Act shall be developed and/or approved by the DOTC. All apprehensions shall be made strictly adopting the above procedure. Failure of enforcers to observe said procedure shall merit review of the apprehension by the adjudication service and/or waiver of fines and penalties.

Section 5. Appellate Procedure

In the event the driver of the apprehended vehicle contests the fine imposed and/or the violation of emission standards, he may appeal the same with the DOTC-designated Traffic Adjudication Service where he will be given the opportunity to be heard.

Section 6. Self-Regulation

The DOTC shall encourage self-regulation among transport stakeholders. The DOTC shall encourage private sector initiated projects which integrate preventive maintenance, driver training, sealing of injections pumps, pre-registration testing, and modified apprehension procedures to reduce smoke belching.

Section 7. Data Collection and Management

The DOTC/LTO shall improve its system of managing and collecting data from the Motor Vehicle Inspection Stations and from roadside inspection / apprehensions for violation of emission standards. The ongoing computerization of LTO vehicle registration shall be linked to the MVIS and roadside inspection data base to be established.

Section 8. Certification of Emission Test Equipment.

To ensure proper and effective enforcement of the vehicle emission standard, the Department, through the Bureau, shall certify the conformity to standards of emission test equipment before it can be used for mandatory emission tests.

PART X FUELS, ADDITIVES, SUBSTANCES AND POLLUTANTS

RULE XXXVI STANDARDS FOR FUELS AND ADDITIVES

Section 1. Mechanism for Setting Fuel Specifications

Pursuant to Section 26 of the Act, the Department of Energy (DOE), co-chaired by the Department, in consultation with the Bureau of Product Standards (BPS) of the DTI, the DOST, the representatives of the fuel and automotive industries, academe and the consumers shall, within six (6) months from the effectivity of these Implementing Rules and Regulations, set the specifications for all types of fuel and fuel-related products, to improve fuel composition for increased efficiency and reduced emissions: Provided, however, That the specifications for all types of fuel and fuel-related products set-forth pursuant to this section shall be adopted by the BPS as Philippine National Standards (PNS).

Section 2. Specification of Allowable Additive Content

The DOE shall specify the allowable content of additives in all types of fuels and fuel-related products. Such standards shall be based primarily on threshold levels of health and research studies. On the basis of such specifications, the DOE shall limit the content or begin the phase-out of additives in all types of fuels and fuel-related products as it may deem necessary. Other agencies involved in the performance of this function shall be required to coordinate with the DOE and transfer all documents and information necessary for the implementation of this provision.

Section 3. Fuel Specifications

The fuel formulations shall meet, among others, the following specifications set in Table 19 on or before the deadline set forth in the Act:

**Table 19
Fuel Specifications**

Fuel	Property	Limit	Effectivity
Unleaded Gasoline	Aromatics	45% max	Jan. 1, 2000
		35% max	Jan. 1, 2003
	Benzene	4% max	Jan. 1, 2000
		2% max	Jan. 1, 2003
Anti-Knock Index	87.5 min	Jan. 1, 2001	
	Reid Vapor Pressure	9 psi max	Jan. 1, 2001
Automotive Diesel Fuel	Sulfur	0.20% max	Jan. 1, 2001
		0.05% max	Jan. 1, 2004
	Cetane No./Index	48 min	Jan. 1, 2001
Industrial Diesel Fuel	Sulfur	0.30% max	Jan. 1, 2001

The fuels characterized above shall be commercially available. Likewise, the same shall be the reference fuels for emission and testing procedures to be established in accordance with the provisions of this Act.

Section 4. Review and Revision of Fuel Specifications

Every two (2) years thereafter or as the need arises and subject to public consultations, the specifications of unleaded gasoline and of automotive and industrial diesel fuels shall be reviewed and revised for further improvement in formulation and in accordance with the provisions of this Act.

Section 5. Monitoring Compliance through Fuel Sampling

Compliance with the fuel specifications set in the Act shall be monitored through fuel sampling. Guidelines and procedures for the conduct of fuel sampling shall be developed by the DOE within six (6) months from the effectivity of these Implementing Rules and Regulations. Such guidelines and procedures shall, among others, consider the following:

- (a) Fuel samples collected must be truly representative of the fuel sampled.
- (b) The chosen sampling procedure must be suitable for sampling fuel under definite storage, transportation, and container conditions.
- (c) Samples must be obtained in such a manner and from such locations in the tank or other container that the sample will be truly representative of the gasoline.
- (d) It must be ensured that the samples represent the general character and average condition of the fuel.
- (e) Care should be taken in collecting and storing samples in containers that will protect them from changes in content such as loss of volatile fractions by evaporation or leaching into the container.

Monitoring results shall be made available to the public through an annual report to be published by the DOE.

RULE XXXVII REGULATION OF FUELS AND ADDITIVES

Section 1. Agencies Responsible for Regulating Fuels and Additives

The DOE, in coordination with the Department and the BPS, shall regulate the use of any fuel or fuel additive.

Section 2. Registration of Fuels and Additives

No manufacturer, processor or trader of any fuel or additive may import, sell, offer for sale, or introduce into commerce such fuel or additive unless the same has been registered with the DOE. Prior to registration, the manufacturer, processor or trader shall provide the DOE with the following relevant information:

- (a) Product identity and composition to determine the potential health effects of such fuels and additives;
- (b) Description of the analytical technique that can be used to detect and measure the additive in any fuel;
- (c) Recommended range of concentration; and
- (d) Purpose in the use of the fuel and additive.

The DOE shall issue a separate regulation or circular detailing registration procedures, including but not limited to report formats and submission deadlines, within (6) months from the adoption and publication of these Implementing Rules and Regulations.

Section 3. Information Database

The DOE shall develop an information database of registered fuels and additives and other related data which shall be accessible to the public provided that information which are in the nature of trade secrets shall be subject to the non-disclosure and confidentiality agreement in Section 4 of this Rule.

Section 4. Non-disclosure and Confidentiality Agreement

Information on fuels and fuel additives registered with the Department of Energy which are considered trade secrets shall be covered by a non-disclosure and confidentiality agreement between the company and the Department of Energy for a period of fifteen (15) years.

RULE XXXVIII PROHIBITED ACTS

Section 1. Misfuelling

In order to prevent the disabling of any emission control device by lead contamination, no person shall introduce or cause or allow the introduction of leaded gasoline into any motor vehicle equipped with a gasoline tank filler inlet and labeled "unleaded gasoline only". This prohibition shall also apply to any person who knows or should know that such vehicle is designed solely for the use of unleaded gasoline.

Section 2. Manufacture, Import, and Sale of Leaded Gasoline and of Engines and/or Components, Requiring Leaded Gasoline

Effective December 23, 2000 no person shall manufacture, import, sell, offer for sale, introduce into commerce, convey or otherwise dispose of, in any manner leaded gasoline and engines and components requiring the use of leaded gasoline.

Section 3. Manufacture, Import and Sale of Fuels Not According to Legally Prescribed Specifications

The manufacture, importation and sale of fuels which do not meet the specifications prescribed in these Rules and Regulations or which may be prescribed by the DOE in the future is prohibited, except where the fuel is intended for export to a country which allows fuel specifications lower than are prescribed in the Philippines.

RULE XXXIX OZONE-DEPLETING SUBSTANCES

Section 1. Enforcement of Philippine Ozone Depleting Substances Phase Out Schedule

Consistent with the terms and conditions of the Montreal Protocol on Substances that Deplete the Ozone Layer and other international agreements and protocols to which the Philippines is a signatory, the Department through the Bureau shall enforce the Philippine Ozone Depleting Substances (ODS) Phase Out Schedule as published in the June 27, 2000 editions of the Manila Times, Business World, Philippine Star, Manila Bulletin, Peoples Balita, and Abante.

Section 2. Revision of the List of Ozone Depleting Substances

When necessary, the Bureau shall revise the list of substances which are known to cause harmful effects on the stratospheric ozone layer which was initially published pursuant to Section 30 of the Act.

RULE XL GREENHOUSE GASES

Section 1. National Plan for Reduction of Greenhouse Gas Emissions

The Department through the Bureau, together with concerned agencies and local government units, shall, within one (1) year from the effectivity of these Implementing Rules and Regulations, prepare and implement a national plan consistent with the United Nations Framework Convention on Climate Change and other international agreements, conventions and protocols on the reduction of greenhouse gas emissions.

RULE XLI PERSISTENT ORGANIC POLLUTANTS

Section 1. National Action Plan

The Department through the Bureau, together with concerned agencies and local government units, shall, within one (1) year from the effectivity of these Implementing Rules and Regulations establish an inventory list of all sources of Persistent Organic Pollutants (POPs) in the country.

Section 2. National Programs on Reduction and Elimination of POPs

Pursuant to Section 32 of the Act, the Bureau shall, within one (1) year after the establishment of the inventory list referred to in the preceding section, design and implement a national government program on the reduction and elimination of POPs such as dioxins and furans.

RULE XLII RADIOACTIVE EMISSIONS

Section 1. Regulation on Atomic and/or Nuclear Energy Use

The Philippine Nuclear Research Institute (PNRI), in coordination with the Bureau and other concerned government agencies, shall regulate all projects which will involve the use of atomic and/or nuclear energy, and will entail release and emission of radioactive substances into the environment, incident to the establishment or possession of nuclear energy facilities and radioactive materials, handling, transport, production, storage, and use of radioactive materials.

RULE XLIII HAZARDOUS AIR POLLUTANTS

Section 1. Designation and Management of Hazardous Air Pollutants

The Department through the Bureau shall issue and maintain a list of hazardous air pollutants and required control measures. The list and control measures shall be source-specific by industry and shall be designed to protect Filipinos from unnecessary risk to health or welfare. Compounds shall be considered for inclusion on the list as reasonable data or information become available.

PART XI INSTITUTIONAL MECHANISMS

RULE XLIV IMPLEMENTING AGENCIES

Section 1. The Department

The Department is the primary government agency responsible for the implementation and enforcement of the Act. The Department shall have the following authority, among others:

- (a) To promulgate rules and regulations as may be necessary to implement the intent and provisions of the Act;
- (b) To closely supervise all or parts of the air quality action plans until such time that the local government concerned can assume the function to enforce the standards set by the Department;
- (c) To revise, from time to time, the designation of airshed utilizing eco-profiling techniques and undertaking scientific studies;
- (d) To designate areas where specific pollutants have already exceeded ambient standards as non-attainment areas and to revise the designation of such areas after consultation with local government authorities, non-government organizations (NGOs), people's organization (POs) and concerned sectors;
- (e) To administer the Air Quality Management Fund;
- (f) To establish a National Research and Development Program for the prevention and control of air pollution, in coordination with the Department of Science and Technology (DOST), other agencies, the private sector, the academe, NGOs and POs;
- (g) To institute administrative proceedings pursuant to Section 40 of the Act;

- (h) To impose fines, through the Pollution Adjudication Board, for violations of standards for stationary sources;
- (i) To exercise such other authority vested by the Act and as provided for in these Implementing Rules and Regulations.

The Secretary may delegate such authority and other powers and function to the Director.

Section 2. The Bureau

The Environmental Management Bureau shall be a line bureau primarily responsible for the implementation and enforcement of the Act pursuant to Section 34 thereof. It shall be comprised of a Central Office and the necessary regional, provincial and such other offices as may be established in pertinent administrative orders issued by the Secretary. The Bureau shall establish and operationalize its regional offices within two (2) years from the effectivity of these Implementing Rules and Regulations. For this purpose, the Bureau shall reorganize and increase the number of its personnel to effectively implement the Act and the Implementing Rules and Regulations. The proposed line bureau staffing pattern shall be submitted to the Department of Budget and Management for approval.

The Bureau shall have the following powers and functions, among others:

- (a) To prepare annual National Quality Status Report pursuant to Section 6 of the Act;
- (b) To design and develop, in cooperation with the National Statistical Coordination Board (NCSB), an information network for data storage, retrieval and exchange;
- (c) To serve as the central depository of all data and information related to air quality;
- (d) To issue and, from time to time, revise information on air pollution control techniques upon consultation with the appropriate committees, government agencies and LGUs;
- (e) To, in coordination with other concerned agencies, review and/or revise and publish annually a list of hazardous air pollutants with corresponding ambient guideline values and/or standard necessary to protect public health and safety, and general welfare;
- (f) To design, impose on and collect regular emission fees from industrial dischargers as part of the emissions permitting system based on environmental techniques;
- (g) To issue permit as it may determine necessary for the prevention and abatement of air pollution;
- (h) To require program and project proponents to put up financial guarantee mechanisms to finance the needs for emergency response, clean-up or rehabilitation of areas that may be damaged during the program or project's actual implementation;
- (i) To review, or as the need therefore arises, revise and publish emission standards to further improve the emission standards for stationary sources of air pollution as well as emission standards for motor vehicles;
- (j) To have the right of entry or access to any premises including documents and relevant materials; to inspect any pollution or waste source, control device, monitoring equipment or method required; and to test any emission;
- (k) To require any person who owns or operates any emission source or who is subject to any requirement of the Act to (i) establish and maintain relevant records; (ii) make relevant reports; (iii) install, use and maintain monitoring equipment or methods; (iv) sample emission, in accordance with the methods, locations, intervals, and manner prescribed by the Department; and (v) keep records;
- (l) To exercise such other powers and functions as provided by the law, the Act and these Implementing Rules and Regulations.

Section 3. Other Implementing Agencies

The other agencies primarily responsible for the implementation of the Act are the Department of Transportation and Communications, the Department of Energy, and the Department of Trade and Industry.

The DOTC shall have the authority to, among others:

- (a) Implement the emission standards for motor vehicles pursuant to and as provided in the Act;
- (b) Participate in the formulation of an Action Plan for the control and management of air pollution from motor vehicles;
- (c) Contribute towards the establishment of procedures for inspection of motor vehicles, assist in the formulation and implementation of the National Motor Vehicle Inspection and Maintenance Program;
- (d) Authorize private emission testing centers (duly accredited by DTI);
- (e) Establish a roadside inspection system;
- (f) Contribute towards design of training program for law enforcement officials and deputized agents on vehicle emission testing.

The DTI shall have the authority to, among others:

- (a) Participate in the formulation of an Action Plan for the control and management of air pollution from motor vehicles;
- (b) Contribute towards the establishment of procedures for inspection of motor vehicles, assist in the formulation and implementation of the National Motor Vehicle Inspection and Maintenance Program;
- (c) Accredite private emission testing centers (duly authorized by the DOTC);
- (d) Develop and implement standards and procedures for the certification of training institutions, instructors and facilities and licensing of qualified private service centers and their technicians;
- (e) Prescribe regulations requiring the disclosure of odometer readings and use of tamper-resistant odometers, including tamper resistant fuel management systems.

The DOE shall have the authority to, among others:

- (a) In coordination with other relevant agencies, set the specifications for all types of fuel and fuel-related products;
- (b) Specify allowable content of additives in all types of fuel and fuel-related products;
- (c) In coordination with the Department and BPS, regulate the use of any fuel or fuel additive.

RULE XLV ROLE OF LOCAL GOVERNMENT UNITS

Subject to Section 36 of the Act and pursuant to the Local Government Code (R.A. 7160) and other pertinent laws, the Local Government Units (LGUs) shall have the following roles within their respective territorial jurisdiction:

- (a) To share the responsibility in the management and maintenance of air quality within their respective territorial jurisdiction;
- (b) To implement air quality standards set by the Governing Board, consistent with Sections 7, 8 and 9 of the Act;
- (c) To establish an Environment and Natural Resources Office (ENRO) in every province, city, or municipality which shall be headed by the environment and natural

resources officer appointed by the chief executive of every province, city or municipality in accordance with the provisions of Section 484 of the R.A. 7160 and to exercise powers and duties set forth in Section 37 of the Act;

- (d) To prepare and develop, with the assistance from the Department, an action plan consistent with the Integrated Air Quality Framework to attain and maintain the ambient of air quality standards within their respective airsheds as provided in Section 9 of the Act;
- (e) To prepare and implement a program and other measures including relocation, whenever necessary, to protect the health and welfare of residents in the area;
- (f) To develop and submit to the Department through the Bureau a procedure for carrying out the action plan for their jurisdiction, provided that the Department through the Bureau shall maintain its authority to independently inspect the enforcement procedure adopted;
- (g) To perform such other powers and functions as may be provided by applicable laws, rules and regulations.

The Department shall provide the LGUs with technical assistance, training and a continuing capability-building program to prepare them to undertake full administration of the air quality management and regulations within their territorial jurisdiction.

RULE XLVI LINKAGE MECHANISM

Section 1. Participation of Other Organizations

The Department shall consult, participate, cooperate and enter into agreement with other government agencies, or with affected non-governmental (NGOs) or people's organizations (POs), or private enterprises in the furtherance of the objectives of the Act and these Implementing Rules and Regulations.

Section 2. Linkage with Coordinative Multisectoral Body

Pursuant to Section 35 of the Act, the Bureau shall endeavor to institutionalize consultation with a multisectoral commission tasked to coordinate the plans and efforts of government agencies and non-government organizations in addressing air pollution in an organized and systematic manner.

The Bureau shall study the creation of a multisectoral commission headed by the Secretary of the Department and composed of representatives from the following sectors: (1) government agencies involved in the task of air pollution control and management, (2) civil society, (3) business, (4) and other concerned sectors. The commission shall serve as an oversight body to ensure the systematic and effective management of air quality.

RULE XLVII RECORD-KEEPING, INSPECTION, MONITORING AND ENTRY

Section 1. Required Relevant Reports and Records

The Department through the Bureau or its duly accredited entity shall, after proper consultation and notice, require any person who owns or operates any emissions source or who is subject to any requirement of this Act to: (a) establish and maintain relevant records; (b) make relevant reports; (c) install, use and maintain monitoring equipment or methods; (d) sample emission, in accordance with the methods, locations, intervals and manner prescribed by the Bureau; (e) keep records on control equipment parameters, production variables or other indirect data when direct

monitoring of emissions is impractical; and (f) provide such other information as the Bureau may reasonably require.

Section 2. Right of Entry, Inspection and Testing

Pursuant to the Act, the Bureau, through its authorized representatives, shall have the right of:

- (a) entry of access to any premises including documents and relevant materials as referred to in the herein preceding paragraph;
- (b) inspect any pollution or waste source, control device, monitoring equipment or method required; and
- (c) test any emission.

Section 3. Records Available to the Public

Any record, report or information obtained under this Rule shall be made available to the public, except upon a satisfactory showing to the Bureau by the entity concerned that the record, report or information, or parts thereof, if made public, would divulge secret methods or processes entitled to protection as intellectual property. Such record, report or information shall likewise be incorporated in the Bureau's industrial rating system.

RULE XLVIII PUBLIC EDUCATION AND INFORMATION CAMPAIGN

Section 1. Public Education and Information Campaign

A continuing air quality information and education campaign shall be promoted by the Department, the Department of Education, Culture and Sports (DECS), the Department of the Interior and Local Government (DILG), the Department of Agriculture (DA) and the Philippine Information Agency (PIA). Consistent with Section 7 of the Act, such campaign shall encourage the participation of other government agencies and the private sector including NGOs, POs, the academe, environmental groups and other private entities in the formulation and implementation of a multi-sectoral information campaign.

Section 2. Awareness Campaign for Mobile Sources

The enforcement and implementation of emission standards requires the active cooperation of the importers, local assemblers, owners/operators and users of all motor vehicles. To ensure the cooperation of these groups, there is a need for an intensified and sustained awareness raising campaign. Awareness raising will be focused on the transport sector and will concentrate in communicating: (i) the harmful impact of gas emission on general public and workers in the transport sector, (ii) the technological options available to the transport sector to prevent smoke belching; and (iii) the commitment of the government to fully enforce emission standards through strengthening of apprehension activities.

The advertising industry, the broadcasting industry and the print media shall participate and cooperate in the formulation and implementation of public awareness raising campaigns in connection with the emission standards without any profit to claim in connection with their involvement.

PART XII ACTIONS

RULE XLIX ADMINISTRATION AND ENFORCEMENT

Section 1. Administration and Enforcement

These Implementing Rules and Regulations shall be administered by the Department and/or its authorized representatives or through other government agencies designated or deputized by the Department, or by this act, executive orders or memorandum circulars, and others.

Section 2. Rules and Regulations of other Government Agencies

The rules and regulations issued by other government agencies and instrumentalities for the prevention and/or abatement of pollution not consistent with this Act shall supplement the rules and regulations issued by the Department through the Bureau.

Section 3. Authentication with Official Seal

All decisions, orders and appropriate legal documents hereinafter promulgated shall be issued and authenticated with the official seal of the Department or other government agencies designated by this Act.

Section 4. Jurisdiction

The Department through the Bureau shall have exclusive and original jurisdiction to control and abate air pollution from stationary sources within the territorial jurisdiction of the Philippines.

The abatement of public nuisance as defined under the Civil Code of the Philippines and special laws shall not affect or stay the proceedings before the Department or the DOTC as the case may be, provided however, that the Department or the DOTC as the case may be, may at its discretion, take appropriate steps in the interest of justice and public welfare.

RULE L ADMINISTRATIVE ACTIONS AND PROCEDURES IN AIR POLLUTION CASES INVOLVING STATIONARY SOURCES

Section 1. Administrative Action

Without prejudice to the right of any affected person to file an administrative action, the Department shall, on its own instance or upon verified complaint by any person, institute administrative proceedings against any person who violates:

- (a) Standards of limitation provided under this Act; or
- (b) Any order, rule or regulation issued by the Department with respect to such standard or limitation.

Section 2. The Pollution Adjudication Board

The Pollution Adjudication Board (PAB) shall have sole and exclusive jurisdiction over all cases of air pollution, as defined in these Implementing Rules and Regulations, and all other matters related thereto, including the imposition of administrative sanctions, except as may be provided by law.

The PAB shall adopt and promulgate the rules of practice and procedure in air pollution cases from stationary sources under this Act. Unless otherwise revised or amended, the existing rules of the PAB, PAB Resolution No. 1-C, Series of 1997, shall apply.

Section 3. Closure or Suspension of Development, Construction or Operations of a Stationary Source

In addition to the fines prescribed under the Act and these Implementing Rules and Regulations, the PAB shall order the closure or suspension of development, construction or operation of the stationary sources until such time that proper environmental safeguards are put in place; Provided, That an establishment found liable for a third offense shall suffer permanent closure immediately.

The Order of Closure or suspension is without prejudice to the immediate issuance of an ex parte order by the PAB for such closure, suspension or development or construction, or cessation of operations during the pendency of the pollution case before the PAB. Said ex parte order shall be based upon prima facie evidence that there is imminent threat to life, public health, safety or general welfare, or to plant or animal life, or whenever there is an exceedance of the emission standards set by the Department and/or the Board or the appropriate LGU.

Section 4. Fine Rating System

The PAB shall prepare a fine rating system to adjust the maximum fine prescribed under Section 45 of the Act based on the violator's ability to pay, degree of willfulness, degree of negligence, history of non-compliance and degree of recalcitrance subject to conditions set forth in the Act. In case of negligence, the first-time offender's ability to pay may likewise be considered by the PAB. In the absence of any extenuating or aggravating circumstances, the amount of fine for negligence shall be equivalent to one-half of the fine for willful violation.

RULE LI ACTIONS, PLEADINGS AND HEARING PROCEDURES FOR MOTOR VEHICLES BEFORE THE LTO

Section 1. Nature and Procedure

Subject to the basic requirements of due process, the proceedings herein provided shall be summary in nature. The technical rules of evidence obtaining in courts of law shall not bind the Traffic Adjudication Service of the LTO. The Rules of Court shall not apply in proceedings before the Board except in a supplementary character and only whenever applicable.

Section 2. Commencement of Action

Actions for any violation of any of the motor vehicle pollution control laws and/or these Implementing Rules and Regulations may be commenced by any person by filing a written complaint, or by the DOTC on its own initiative, or by the filing of a charge by any deputized agent of the DOTC before the hearing officer.

Section 3. Caption and Title

In all cases cognizable by the Traffic Adjudication Service, the full names of all parties, as far as they are known, shall be stated in the caption of the original pleadings, motion, resolution, order or decision and in all summons, notices and processes to be served upon them.

Section 4. Forms and Contents of Complaints and Charge Sheet

The complaint or charge sheet shall be in writing and drawn in clear and concise language, either in Filipino or in English. It shall recite the ultimate facts constituting the cause(s) of action and/or the violations of the motor vehicle pollution control laws and/or these Implementing Rules and Regulations, as well as all information pertinent thereto. It may specify the relief and such further remedies as may be deemed just and equitable, except that the charge sheet shall already include a notice requiring the Respondent to appear and answer the charge of the date, time and place indicated therein which shall not be less than one (1) day nor more than three (3) days from receipt hereof. In the case of a private complaint, the hearing officer shall set the case for hearing and require the Respondent to appear and answer the complaint on the date, time and place indicated in the notice of hearing which shall not be later than five (5) days from receipt thereof.

Section 5. Filing and Service of Complaint and Charge Sheet

The complaint or charge sheet shall be filed in two (2) copies before the Hearing Officer whose office covers the territorial jurisdiction where the Respondent was apprehended. The charge sheet shall be filed immediately, but not later than twenty-four (24) hours from knowledge of the violation. Service of the copy upon the driver of Respondent, shall be deemed service to Respondent.

Section 6. Hearing on Apprehended Motor Vehicles

- (a) As soon as the parties enter their appearances and manifest their readiness to proceed with the hearing of the case, the complainant shall be allowed to present evidence in support of the charge with the testimony of each witness taken under oath. Thereafter, the Respondent shall be allowed to present this evidence.
- (b) If the case is commenced by the Secretary or its deputized agent, the hearing shall proceed directly with the presentation of results of the smoke meter or CO/HC tests as the case may be, and other evidence, after which the Respondent shall present his evidence.

In case of doubt, the Hearing Officer shall admit all the evidence presented, subject to the objections interposed, if there be any.

Section 7. Order/Decision

If the Respondent admits the charge, the Hearing Officer shall on that same day, issue an order imposing the appropriate fines and directing the grounding of the apprehended motor vehicle.

If the litigation of the case continues, the Hearing Officer shall decide the same within three (3) days from its submission. Said decision shall become final and executory if no appeal is taken therefrom to the Secretary within fifteen (15) days from notice thereof.

Only upon the presentation of the CEC and the official receipt certifying full payment of fines shall the grounded motor vehicle be released upon a written order duly issued by the Hearing Officer. The Hearing Officer shall then issue another order allowing the said motor vehicle to resume operation.

RULE LII CITIZEN SUIT

Section 1. Purposes

The purposes of this section are to:

- (a) promote the participation of the citizens in the enforcement of the Act
- (b) serve as a prod to government officials to take the necessary and appropriate action to abate and/or control pollution.

Section 2. Scope

The legal actions contemplated under this section are for civil and criminal remedies, the administrative action having been extensively treated in the preceding Rules.

Section 3. Party Defendants

The legal actions shall be against:

- (a) Any private natural or juridical person, including government owned and controlled corporations, who violates or fails to comply with the provisions of this Act;
- (b) Any Government agency which may issue any order or rules inconsistent with this Act. For this purpose, unless the inconsistency is so blatant as to manifest evident bad faith, the action available under this heading shall only be civil in nature, such as for declaratory relief and/or injunction. The government official who was made a respondent in said civil action shall be sued in his official capacity and shall not be liable for damages.
- (c) Any public officer who willfully or grossly neglects to perform the duties provided for under the Act, or who abuses his authority or in any manner improperly performs his duties under the Act and its Implementing Rules and Regulations.

Section 4. Notice

The government official as well as the person in violation shall be given notice of thirty (30) calendar days to undertake the necessary measures to abate the pollution. This shall be a condition precedent to the filing of a civil or criminal case in court against the polluting establishment and against the government official concerned.

Section 5. Damages

Damages arising from illness, physical injury or damage to property as a result of air pollution may be included in the action filed against the government official concerned and the polluting establishment. In addition, failure to take action within the prescribed 30-day period may also be ground for the initiation of an administrative or criminal action against the government official concerned before the Office of the Ombudsman.

Section 6. Filing Fees

In coordination with the Supreme Court, the citizen suit under this Rule, including actual and moral damages alleged to have resulted from the air pollution, shall be exempt from filing fees and other court fees. The Supreme Court may also waive the payment of the nominal filing fee for actions not capable of pecuniary estimation (e.g., declaratory relief, prohibitory and mandatory injunction, etc). The fees shall however be recorded to enable the Court to collect the appropriate amount

recovered by the plaintiff in the event a monetary judgment is rendered in favor of the plaintiff in the citizen suit.

Section 7. Bond

In coordination with the Supreme Court, where there is a prima facie showing by the plaintiff that the defendant establishment's emission is beyond the standards allowed by the law and these Implementing Rules and Regulations, or where there is a showing that the government official concerned has grossly neglected to perform his duty or has abused his authority, the Court shall exempt the plaintiff from the posting of a bond for the issuance of a restraining order or preliminary injunction.

Section 8. Malicious Actions

The Court shall, within thirty (30) days from receipt of the complaint, make a preliminary determination whether the case is malicious and/or baseless. The availability of technical data secured through the monitoring conducted by the Department through the Bureau, if any, or the presence of a photograph showing a visibly opaque emission shall be sufficient evidence to prove that the case is neither malicious nor baseless.

RULE LIII SUITS AND STRATEGIC LEGAL ACTIONS

Section 1. Duty of the Investigating Prosecutor

Where a suit is brought against a person who filed an action under the preceding Rule, or against any person, institution or government agency that implements the Act or these Implementing Rules and Regulations, it shall be the duty of the investigating prosecutor or the court, as the case may be, to immediately make a determination not exceeding thirty (30) days whether said legal action has been filed to harass, vex, exert undue pressure or stifle such legal resources of the person complaining or enforcing the provisions of the Act or these Implementing Rules and Regulations.

Section 2. Action of the Court

Upon determination made under the preceding section, if evidence warrants the same, the court shall dismiss the case and award attorney's fees and double damages.

Section 3. Scope

This Rule shall apply and benefit persons who filed an action under the preceding Rule or Section 41 of the Act and any person, institution or government agency that implements the Act or these Implementing Rules and Regulations. Further, it shall also apply and benefit public officers who are sued for acts committed in their official capacity, there being no grave abuse of authority, and done in the course of enforcing the Act or these Implementing Rules and Regulations.

PART XIII FINES AND PENALTIES

RULE LIV FINES AND PENALTIES FOR VIOLATION OF STANDARDS FOR STATIONARY SOURCES

Section 1. Fines to Be Imposed

For actual exceedance of any pollution or air quality standards under the Act or these Implementing Rules and Regulations, the PAB shall impose a fine of not more than One Hundred Thousand Pesos (P 100,000.00) for every day of violation against the owner or operator of a stationary source until such time that the standards have been complied with.

The fines herein prescribed shall be increased by at least ten percent (10%) every three (3) years to compensate for inflation and to maintain the deterrent function of the fines.

Section 2. Gross Violation Defined

Gross violations of the Act or these Implementing Rules and Regulations shall mean:

- (a) Three (3) or more specific offenses within a period of one (1) year;
- (b) Three (3) or more specific offenses within three (3) consecutive years;
- (c) Blatant disregard of the orders of the PAB, such as but not limited to the breaking of seals, padlocks and other similar devices, or operating despite the existence of an order for closure, discontinuance or cessation of operation;
- (d) Irreparable or grave damage to the environment as a consequence of any violation or omission of the provisions of the Act or these Implementing Rules and Regulations.

Section 3. Penalties for Gross Violations

In case of gross violations of the Act or these Implementing Rules and Regulations, the PAB shall recommend to the proper government agencies the filing of appropriate criminal charges against the violators. The PAB shall assist the public prosecutor in the litigation of the case.

Offenders shall be punished with imprisonment of not less than six (6) years but not more than ten (10) years at the discretion of the court. If the offender is a juridical person, the president, manager, directors, trustees, the pollution control officer or officials directly in charge of the operations shall suffer the penalty herein provided.

Section 4. Lien Upon Personal and Immovable Property

Fines and penalties imposed pursuant to the Act or these Implementing Rules and Regulations shall be liens upon personal and immovable properties of the violator. Such lien shall, in case of insolvency of the respondent violator, enjoy preference subsequent to laborer's wages under Article 2241 and 2242 of Republic Act No. 386, otherwise known as the New Civil Code of the Philippines.

RULE LV FINES AND PENALTIES FOR VIOLATION OF STANDARDS FOR MOTOR VEHICLES

Section 1. Fines and Penalties for Violation of Vehicle Emission Standards

The driver and operator of the apprehended vehicle found to have exceeded the emission standards shall suffer the following penalties.

- (a) First offense – a fine in the amount of one thousand pesos (P 1,000.00);
- (b) Second offense – a fine in the amount of three thousand pesos (P 3,000.00); and
- (c) Third offense –a fine in the amount of five thousand pesos (P 5,000.00) and the offender must undergo a seminar on pollution control and management conducted by the DOTC/LTO.

In case the third offense was committed within a year from the commission of the first offense, an additional penalty of suspension of the Motor Vehicle Registration (MVR) for a period of one (1) year shall be imposed.

Section 2. Fines for Violation of the Provisions of Section 21(d) of the Act

Any violation of the provisions of Section 21 paragraph (d) with regard to national inspection and maintenance program, including technicians and facility compliance shall be penalized with a fine of not less than thirty thousand pesos (P 30,000.00) or cancellation of license of both the technician and the center, or both, as determined by the DOTC.

RULE LVI FINES AND PENALTIES FOR VIOLATIONS OF OTHER PROVISIONS OF THE CLEAN AIR ACT

Section 1. Fines and Penalties for Violations of Other Provisions in the Act

For violations of all other provisions provided in the Act and these Implementing Rules and Regulations, fine of not less than Ten Thousand Pesos (P 10,000.00) but not more than One Hundred Thousand Pesos (P 100,000.00) or six (6) years imprisonment or both shall be imposed.

If the offender is a juridical person, the president, manager, directors, trustees, the pollution control officer or officials directly in charge of the operations shall suffer the penalty herein provided.

Section 2. Burning of Municipal Waste

Any person who burns municipal waste in violation of Sections 1 and 3 of Rule XXV shall be punished with two (2) years and one (1) day to four (4) years imprisonment.

Section 3. Burning of Hazardous Substances and Wastes

Any person who burns hazardous substances and wastes in violation of Section 1 of Rule XXV shall be punished with four (4) years and one (1) day to six (6) years imprisonment.

Section 4. Burning of Bio-Medical Waste.

Any person who burns bio-medical waste in violation of Section 4 of Rule XXV shall be punished with four (4) years and one (1) to six (6) years imprisonment.

Section 5. Smoking in Public Places

Any person who smokes inside a public building or an enclosed public place, including public utility vehicles or other means of public transport or in any enclosed area outside of his private residence, private place of work or any duly designated smoking area shall be punished with six (6) months and one (1) day to one (1) year imprisonment or a fine of ten thousand pesos (P 10,000.00).

Section 6. Manufacture, Importation, Sale, Offer for Sale, Introduction into Commerce, Conveyance or other Disposition of Leaded Gasoline.

Any person who manufactures, imports, sells, offers for sale, introduces into commerce, conveys or otherwise disposes of, in any manner leaded gasoline shall be punished with three (3) years and one (1) day to five (5) years imprisonment and liable for the appropriate fine as provided in Section 1.

Section 7. Manufacture, Importation, Sale, Offer for Sale, Introduction into Commerce, Conveyance or other Disposition of Engines and/or Engine Components Requiring Leaded Gasoline.

Any person who manufactures, imports, sells, offers for sale, introduces into commerce, conveys or otherwise disposes of, in any manner engines and/or engine components which require the use of leaded gasoline shall be punished with three (3) years and one (1) day to five (5) years imprisonment and liable for the appropriate fine as provided in Section 1.

Section 8. Manufacture, Importation, Sale, Offer for Sale, Dispensation, Transportation or Introduction into Commerce of Unleaded Gasoline Fuel which do not Meet the Fuel Specifications.

Any person who manufactures, sells, offers for sale, dispenses, transports or introduces into commerce unleaded premium gasoline fuel in violation of Section 3 of Rule XXXI or which do not meet the fuel specifications as revised by the DOE shall be punished with three (3) years and one (1) day to five (5) years imprisonment and liable for the appropriate fine as provided in Section 1.

Section 9. Manufacture, Importation, Sale, Offer for Sale, Dispensation, Transportation or Introduction into Commerce of Automotive Diesel Fuel which do not Meet the Fuel Specifications.

Any person who manufactures, sells, offers for sale, dispenses, transports or introduces into commerce automotive diesel fuel in violation of Section 3 of Rule XXXI or which do not meet the fuel specifications as revised by the DOE shall be punished with three (3) years and one (1) day to five (5) years imprisonment and liable for the appropriate fine as provided in Section 1.

Section 10. Manufacture, Importation, Sale, Offer for Sale, Dispensation, Transportation or Introduction into Commerce of Industrial Diesel Fuel which do not Meet the Fuel Specifications.

Any person who manufactures, sells, offers for sale, dispenses, transports or introduces into commerce industrial diesel fuel in violation of Section 3 of Rule XXXI or which do not meet the fuel specifications as revised by the DOE shall be punished with three (3) years and one (1) day to five (5) years imprisonment and liable for the appropriate fine as provided in Section 1.

Section 11. Manufacture, Processing, Trade of Fuel or Fuel Additive Without Prior Registration of the Fuel or Fuel Additive with the DOE.

Any person who manufactures, processes, or engages in the trade of any fuel or fuel additive without having the fuel or fuel additive registered with the DOE shall be punished with two (2) years and one (1) day to four (4) years of imprisonment and liable for the appropriate fine as provided in Section 1.

Section 12. Misfuelling.

Misfuelling refers to the act of introducing or causing or allowing the introduction of leaded gasoline into any motor vehicle equipped with a gasoline tank filler inlet and labeled “unleaded gasoline only.”

Any person who misfuels shall be punished with one (1) year and one (1) day to three (3) years imprisonment or a fine of twenty thousand pesos (P 20,000.00).

PART XIV FINAL PROVISIONS

RULE LVII SEPARABILITY CLAUSE

Should any provision herein be subsequently declared unconstitutional, the same shall not affect the validity or the legality of the other provisions.

RULE LVIII REPEALING AND AMENDING CLAUSE

Department Administrative Order No. 2000-03 and all orders, rules and regulations inconsistent with or contrary to the provisions of these Implementing Rules and Regulations are hereby repealed or modified accordingly.

RULE LIX EFFECTIVITY

These Implementing Rules and Regulations shall take effect fifteen (15) days from the date of its publication in the *Official Gazette* or in at least two (2) newspapers of general circulation.

Approved : _____

(Sgd.)ANTONIO H. CERILLES
Secretary

Prepared and Recommended for Approval by:

**The Environmental Management
Bureau
and
The Inter-Agency Technical
Committee for the IRR of the Clean
Air Act of 1999**

(Sgd.)PETER ANTHONY A. ABAYA
Director, EMB
**Chairman, Inter-Agency Technical
Committee**

ANNEX A
AIR QUALITY INDICES

Air Quality Indices. – The following shall describe the six (6) levels of air quality for suspended particulates, sulfur dioxide, photochemical oxidants or ozone, carbon monoxide, and nitrogen dioxide anywhere in the Philippines. Levels above those indicated, with the exception of TSP, shall be considered Emergency:

(a) Particulate Matter ($\mu\text{g}/\text{m}^3$)

(1) Total Suspended Particulates – (24-Hour Average)

Good	0 - 80
Fair	81 - 230
Unhealthy for sensitive groups	231 - 349
Very Unhealthy	350 - 599
Acutely unhealthy	600 - 899
Emergency	900 – and above

(2) PM_{10} [24-hour]

Good	0 – 54
Fair	55 – 154
Unhealthy for sensitive groups	155 – 254
Very Unhealthy	255 – 354
Acutely unhealthy	355 – 424
Emergency	425 – 504

(b) Sulfur Dioxide (ppm) [24-hour]

Good	0.000 – 0.034
Fair	0.035 – 0.144
Unhealthy for sensitive groups	0.145 – 0.224
Very Unhealthy	0.225 – 0.304
Acutely unhealthy	0.305 – 0.604
Emergency	0.605 – 0.804

(c) Ozone (ppm)

[8-hour]

Good	0.000 – 0.064
Fair	0.065 – 0.084
Unhealthy for sensitive groups	0.085 – 0.104
Very Unhealthy	0.105 – 0.124
Acutely unhealthy	0.125 – 0.374
Emergency	(¹)

¹ When 8-hour O_3 concentrations exceed 0.374 ppm, AQI values of 301 or higher must be calculated with 1-hour O_3 concentrations.

[1-hour]²

Good	-
Fair	-
Unhealthy for sensitive groups	0.125 – 0.164

Very Unhealthy	0.165 – 0.204
Acutely unhealthy	0.205 – 0.404
Emergency	0.405 – 0.504

² Areas are generally required to report the AQI based on 8-hour ozone values. However, there are a smaller number of areas where an AQI based on 1-hour ozone values would be more precautionary. In these cases, in addition to calculating the 8-hour ozone index value, the 1-hour index value may be calculated and the maximum of the two values is reported.

(d) Carbon Monoxide (ppm) [8-hour]

Good	0.0 – 4.4
Fair	4.5 – 9.4
Unhealthy for sensitive groups	9.5 – 12.4
Very Unhealthy	12.5 – 15.4
Acutely unhealthy	15.5 – 30.4
Emergency	30.5 – 40.4

(e) Nitrogen Dioxide (ppm) [1-hour]

Good	(³)
Fair	(³)
Unhealthy for sensitive groups	(³)
Very Unhealthy	(³)
Acutely unhealthy	0.65 – 1.24
Emergency	1.25 – 1.64

³ NO₂ has no 1-hour term NAAQG.

Pollutant-Specific Cautionary Statements for the General Public.

(a) Particulate Matter (µg/m³)

TSP and PM₁₀ [24-hour]

Good	None
Fair	None
Unhealthy for sensitive groups	People with respiratory disease, such as asthma, should limit outdoor exertion.
Very unhealthy	Pedestrians should avoid heavy traffic areas. People with heart or respiratory disease, such as asthma, should stay indoors and rest as much as possible. Unnecessary trips should be postponed. People should voluntarily restrict the use of vehicles.
Acutely unhealthy	People, should limit outdoor exertion. People with heart or respiratory disease, such as asthma, should stay indoors and rest as much as possible. Unnecessary trips should be postponed. Motor vehicle use may be restricted. Industrial activities may be curtailed.
Emergency	Everyone should remain indoors, (keeping windows and doors closed unless heat stress is possible). Motor vehicle use should be prohibited except for emergency situations. Industrial activities, except that which is vital for public safety and health, should be curtailed.

(b) Sulfur Dioxide (ppm) [24-hour]

Good	None
Fair	None
Unhealthy for sensitive groups	People with respiratory disease, such as asthma, should limit outdoor exertion.
Very unhealthy	Pedestrians should avoid heavy traffic areas. People with heart or respiratory disease, such as asthma, should stay indoors and rest as much as possible. Unnecessary trips should be postponed. People should voluntarily restrict the use of vehicles.
Acutely unhealthy	People, should limit outdoor exertion. People with heart or respiratory disease, such as asthma, should stay indoors and rest as much as possible. Unnecessary trips should be postponed. Motor vehicle use may be restricted. Industrial activities may be curtailed.
Emergency	Everyone should remain indoors, (keeping windows and doors closed unless heat stress is possible). Motor vehicle use should be prohibited except for emergency situations. Industrial activities, except that which is vital for public safety and health, should be curtailed.

(c) Ozone (ppm)

Good	None
Fair	None
Unhealthy for sensitive groups	People with respiratory disease, such as asthma, should limit outdoor exertion.
Very unhealthy	Pedestrians should avoid heavy traffic areas. People with heart or respiratory disease, such as asthma, should stay indoors and rest as much as possible. Unnecessary trips should be postponed. People should voluntarily restrict the use of vehicles.
Acutely unhealthy	People, should limit outdoor exertion. People with heart or respiratory disease, such as asthma, should stay indoors and rest as much as possible. Unnecessary trips should be postponed. Motor vehicle use may be restricted. Industrial activities may be curtailed.
Emergency	Everyone should remain indoors, (keeping windows and doors closed unless heat stress is possible). Motor vehicle use should be prohibited except for emergency situations. Industrial activities, except that which is vital for public safety and health, should be curtailed.

(d) Carbon Monoxide (ppm)

Good	None
Fair	None
Unhealthy for sensitive groups	People with cardiovascular disease, such as angina, should limit heavy exertion and avoid sources of CO, such as heavy traffic.
Very unhealthy	People should stay indoors and rest as much as possible. Unnecessary trips should be postponed. People should voluntarily restrict the use of vehicles and avoid sources of CO, such as heavy traffic. Smokers should refrain from smoking.

Acutely unhealthy	People with cardiovascular disease, such as angina, should avoid exertion and sources of CO, such as heavy traffic, and should stay indoors and rest as much as possible. Unnecessary trips should be postponed. Motor vehicle use may be restricted. Industrial activities may be curtailed.
Emergency	Everyone should avoid exertion and sources of CO, such as heavy traffic; and should stay indoors and rest as much as possible.

(e) Nitrogen Dioxide (ppm)

Good	None
Fair	None
Unhealthy for sensitive groups	People with respiratory disease, such as asthma, should limit outdoor exertion.
Very unhealthy	Pedestrians should avoid heavy traffic areas. People with heart or respiratory disease, such as asthma, should stay indoors and rest as much as possible. Unnecessary trips should be postponed. People should voluntarily restrict the use of vehicles.
Acutely unhealthy	People should limit outdoor exertion. People with heart or respiratory disease, such as asthma, should stay indoors and rest as much as possible. Unnecessary trips should be postponed. Motor vehicle use may be restricted. Industrial activities may be curtailed.
Emergency	Everyone should remain indoors, (keeping windows and doors closed unless heat stress is possible). Motor vehicle use should be prohibited except for emergency situations. Industrial activities, except that which is vital for public safety and health, should be curtailed.

ANNEX B

Emission Test Procedure for In-Use Motor Vehicles Equipped with Spark-Ignition Engines

1. Scope

The test procedure is for the determination of the concentration of exhaust carbon monoxide (CO) and hydrocarbon (HC) emissions from in-use motor vehicles equipped with spark-ignition engines running at idle speed.

2. Test Equipment (Reference: ISO - 3930)

- a. Carbon monoxide analyzer - a NDIR (Non-dispersive Infrared) CO exhaust gas analyzer.
- b. Hydrocarbon analyzer - a NDIR HC exhaust gas analyzer, HC as hexane (C₆H₁₄).
- c. Tachometer - An easily installed and operated tachometer to measure engine speed (RPM).

3. Vehicle Preparation

- d. Set the vehicle transmission at neutral with the hand-brake engaged.
- e. Ensure that the idling speed or the engine rpm with the accelerator in the rest position, conforms with the vehicle manufacturer's recommendation.
- f. All accessories like rear window heating, air conditioning system, air fan and other equipment necessary for the vehicle operation at idle should be switched-off.
- g. Check that the temperature of the engine is at least 70°C; otherwise, run the vehicle for at least 15 minutes on a normal road before testing.
- h. Ensure that the vehicle exhaust system is reasonably leakproof and will allow the insertion of the sampling probe by at least 30 cm. from the tailpipe outlet. If this is not possible due to tailpipe configuration, use the appropriate correction factor.

4. Measurement

- a. Immediately preceding the measurement, adjust the instrument to zero and accelerate the engine to about 2,500 rpm, using the tachometer, if available. Maintain this speed from ten (10) to fifteen (15) seconds, then release the pedal to return the engine at idle speed.
- b. While the engine idles, insert the sampling probe into the exhaust pipe as deeply as possible which shall not be less than thirty (30) cm. Wait for twenty (20) seconds and take the CO/HC reading.
- c. If the vehicle has multiple exhaust outlets the arithmetic average of the CO/HC readings in each exhaust outlet is taken as the final result.

5. Instrument Calibration, Adjustments (Reference: ISO 3929)

- a) Prepare, use and maintain the analyzer following the directions given in the instrument manufacturer's operation manual and service the instrument at such intervals as to ensure accuracy.
- b) Carry out a span and zero calibration within a period of four (4) hours before the instrument is moved or transferred to a new location. The calibration shall be performed well away from the exhaust of motor vehicles whose engines are running.

If the instrument is not self-compensated for non-standard conditions of altitude and ambient temperature or not equipped with a manually controlled system of compensation, the scale calibration shall be performed using calibration gas.

- c) If the sample handling system is not integral with the analyzer, make certain that the effectiveness of the gas sampling system are leakproof. Check that filters are clean, that filter holders are fitted with their gaskets and that these are all in good condition.
- e) Ensure that the sample handling line and probe are free from contaminants.

ANNEX C
FREE ACCELERATION TEST FOR IN-USE COMPRESSION-IGNITION MOTOR
VEHICLES

1. Scope

The test is a smoke opacity measurement for in-use motor vehicles equipped with compression-ignition (diesel) engines, using the free acceleration from low idle speed method.

2. Motor Vehicle Test Condition

- a. The test shall be carried out on a stationary vehicle and the engine shall be first brought to normal operating conditions during a road run or dynamic test. In particular, cooling water and oil should be at normal temperature.
- b. The combustion chamber should not have been cooled or fouled due to a prolonged period of idling preceding the test.
- c. The exhaust system shall not have any orifice or leaks wherein the gases emitted by the engine might be diluted.

3. Test Equipment

The light-absorption coefficient of the exhaust gases shall be measured with an opacimeter satisfying the conditions laid down in ECE Regulation No. 24, Revision 2E/ECE/TRANS 505. Rev Add 23 Rev 2, Annex 8: Characteristics of Opacimeter.

4. Test Procedures and Smoke Opacity Measurement

- a. Follow the opacimeter manufacturer's instruction for on the proper installation, operation/use and checking the accuracy and calibration before and after each test.
- b. Set the vehicle gear-change control in the neutral position and the hand-brake effectively engaged.
- c. Start the engine and warm it up to its normal operating temperature.
- d. Accelerate the engine two to three times (2-3) prior to smoke sampling in order to remove deposits of soot and other carbon particles in the tail pipe.
- e. With the engine idling, depress the accelerator quickly, but not violently, to obtain maximum delivery from the injection pump. Maintain this position until maximum engine speed is reached for about two (2) to four (4) seconds and the governor comes into action. As soon as this speed is reached, release the accelerator until the engine resumes its idling speed. Record the maximum reading of the smokemeter.
- f. The operation described in paragraph (4)(e) shall be repeated not less than six (6) times in order to clear the exhaust system and to allow for any necessary adjustment of the apparatus. The maximum opacity values read in each successive acceleration shall be noted until stabilized values are obtained. The values read shall be regarded as stabilized when four (4) consecutive readings are within a hand width of 0.25 m^{-1} and do not form a decreasing sequence. The arithmetic mean of the four stabilized values shall be the test result for the concerned vehicle.
- g. For motor vehicles designed with several exhaust outlets that are individually connected from paired exhaust ports, the free acceleration test shall be carried out on each outlet. In this case, the values used for calculating the correction to the absorption coefficient shall be arithmetical mean values recorded at each outlet and the test shall be valid only if the extreme values measured do not differ by more than 0.15 m^{-1}
For motor vehicles designed with several exhaust outlets connected from one exhaust pipe coming from the engine's exhaust manifold collector, the free acceleration test shall be carried out only on one exhaust outlet, the other outlets effectively blocked to prevent leaks.
- h. Seal the full load screw of the injection pump/delivery system of the motor vehicle after a pass-test to prevent tampering.