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LEGAL NOTICE NO. 19

THE NAIROBI CITY COUNTY AIR QUALITY ACT

(No. 4 of 2022)

THE NAIROBI CITY COUNTY AIR QUALITY (AMBIENT) REGULATIONS, 2025

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THE NAIROBI CITY COUNTY AIR QUALITY ACT

(No. 4 of 2022)

IN EXERCISE of the powers conferred by section 50 of the Nairobi City County Air Quality Act of 2022, the County Executive Committee Member responsible for matters relating to Environment makes the following Regulations—

THE NAIROBI CITY COUNTY AIR QUALITY (AMBIENT) REGULATIONS, 2025

Citation

1. These regulations may be cited as the Nairobi City County Air Quality (Ambient) Regulations, 2025, and shall come into operation upon publication.

Interpretation

2. In these Regulations unless the context otherwise requires—

“Act” means the Nairobi City County Air Quality Act of 2022;

“aerosol” means suspension in a gaseous medium of solid particles, liquid particles or solid and liquid particles;

“air pollutant” means—

- (a) any fume, smoke, particulate matter, vapour, gas, odorous substance or any combination thereof; or
- (b) any other substance or matter whether physical, chemical, biological, or radioactive, including source material, special nuclear material, and by-product materials, which is emitted into or otherwise enters the atmosphere from any object or activity and causes, or, if unabated, may cause air pollution, but does not include water vapour, steam condensate or any other emission exempted under part I of the Fifth Schedule;

“air pollution” means any change in the composition of air caused by air pollutants;

“applicant” means an applicant for a License issued under these Regulations;

“air quality” means the concentration prescribed under or pursuant to the Act of a pollutant in the atmosphere at the point of measurement;

“air quality standard” means an air quality level as established by This Regulations setting a limit of contaminant levels in the atmosphere;

“ambient air” means the atmospheric air surrounding the earth and does not include the atmospheric air within a structure or within any underground space;

“ambient air quality standard” means the quality of the ambient air specified under the first schedule of these Regulations as being safe for human health;

“controlled area” means a region that has been designated by the County Executive Committee Member as not meeting one or more established air quality standards for a specific pollutant set under these regulations;

“control Order” means the instructions to a proponent issued in writing in order to comply with the specific legal requirements;

“County Executive Committee Member” means the County Executive Committee Member responsible for matters related to Environment;

“county” means Nairobi City County;

“cyclone” means dust (and grit) or droplet separator utilizing essentially the centrifugal force derived from the motion of the gas;

“department” means the County Department for the time being responsible for matters relating to Environment in Nairobi City County;

“dioxins” includes any of the chlorinated hydrocarbon compounds known chemically as dibenzo-p-dioxins, chlorinated dibenzofurans and certain polychlorinated biphenyls;

“electrostatic precipitator” means a device for removing a charged particle from a gas stream; “emission” means discharge of pollutants into the atmosphere from any source;

“emission rate” means mass or other physical quality of pollutant transferred into the atmosphere per unit time;

“emission limits” means the permissible concentration levels of emission (of pollutants set out in the Third Schedule);

“excessive emission” means emission of an air pollutant in excess of an emission standard or emission permit;

“existing facility” means any facility having an air pollutant source that is constructed, or in operation, installed, or used, in Nairobi City County on or before the commencement of this Regulations;

“facility” means any building, structure, establishment, installation, plant, works or activity that emits an air pollutant;

“fugitive emission” means an emission that cannot or is not reasonably likely to pass through a stack, chimney, vent or other functionally equivalent opening;

“fume” means an aerosol of solid particles, usually from metallurgical processes, generated by condensation from the gaseous state, generally after volatilization from melted substances and often accompanied by chemical reactions such as oxidation.

“greenhouse gas” means gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation and includes gases listed under Part III of the Second Schedule;

“hydrocarbon” means any organic compound consisting predominantly of carbon and hydrogen;

“indoor air” means air within an enclosed space, e.g. dwelling or public building;

“intermittent source” refers to a source of pollution or emissions that operates or produces pollutants in a non-continuous or irregular manner at certain times depending on specific conditions, activities, or operational schedules

“level” means concentration of a pollutant in ambient air;

“license” means an air pollutant discharge License granted under this Regulations;

“licensee” means a person who is granted a License under this Regulations;

“limit value” means air pollutant concentration level set by this standard, with the aim of avoiding, preventing or reducing harmful effects on human health or the environment as a whole (or both), to be attained within a given period and not to be exceeded once attained;

“malfunction” means any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, process or process equipment, to operate in a normal manner, but does not include any failure that is primarily caused by poor maintenance or negligent operation;

“maximum allowable exposure of an air pollutant” means the standards of exposure or discharge or emissions established under the Act or under this Regulations;

“mobile source” means a moving producer of air pollution, mainly forms of transport including motorcycles (two wheelers and three wheelers), cars, buses, trucks, vans, trains, boats and aero planes;

“monitoring” means any periodic or continuous surveillance or testing to determine the level of compliance with statutory requirements or pollutant levels in various media or in humans, animals, and other living things.

“new facility” means any facility, other than an existing facility, having an air pollutant source that commenced construction or operation or was installed in Kenya after the commencement of this Regulations;

“new source” means an air pollution source that commenced construction or operation or was installed in Kenya after the commencement of these Regulations;

“nitrogen oxides” means the sum of nitric oxide (NO) and nitrogen dioxide (NO₂) expressed collectively as a nitrogen dioxide equivalent;

“non-point source” means a source of atmospheric emissions which cannot be identified as having emanated from a single identifiable source or fixed location, and includes bush, forest and open fires, mining activities, agricultural activities and stockpiles;

“occupational air quality” means the concentration prescribed under or pursuant to the Act of a substance or energy in the atmosphere within a structure or underground space in which human activities take place;

“odour” means property of substance that stimulates characteristic smell;

“opacity” means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background;

“open burning” refers to the uncontrolled combustion of materials in open spaces;

“owner” means any person who owns or operates, or is licensed to operate a facility, source, or air pollution control equipment, as the case may be;

“person” has the same meaning assigned to it under the Act;

“particulate matter” includes foot dust, fly ash, cinders, and other solid particles of any kind;

“particulates” any fine liquid or solid particles including dust, smoke, mist, fumes, or smog found in air or emissions;

“point source” means a single identifiable source and fixed location of atmospheric emission, and includes smoke stacks and residential chimneys;

“pollutant” includes any solid, liquid, vapour, gas or aerosol, or combination thereof;

“Portable sources” means movable equipment, machinery, or devices that emit air pollutants and can be transported from one location to another, including but not limited to

generators, compressors, and other fuel-burning or industrial equipment not permanently fixed to a specific site.

“PM2.5” means particulate matter with an aerodynamic diameter of less than or equal to a nominal 2.5 micrometers, as determined by the appropriate reference methods listed under the Tenth Schedule;

“PM10” means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to ten micrometers emitted to the ambient air as measured by applicable reference methods listed under the Tenth Schedule, or an equivalent or alternate method approved by the Department;

“primary ambient air quality standards” means those ambient air quality standards which, in the judgment of the Department, are requisite to protect the public health and allow an adequate margin of safety;

“primary pollutant” means an air pollutant directly emitted from a source; “priority pollutant” means an air pollutant specified in the Second Schedule;

“prescribed area” means an area prescribed by the County Executive Committee Member for Environment by an order pursuant to the Act;

“reference method” means any method specified in the Tenth Schedule for sampling and analyzing for an air pollutant;

“regulated air pollutant” means any pollutant for which there is a national ambient air quality standard;

“scrubber” means device by which particulate or gaseous contaminants are removed from a gaseous stream by contact with or impingement on wet or dry surfaces, or by use of liquid sprays;

“secondary pollutants” means pollutants which may be produced in the atmosphere by physical or chemical processes from primary pollutants or other substances present as a result of emissions from stationary or mobile sources;

“smoke” means aerosol or small gas-borne particles resulting from incomplete combustion of materials, predominantly of carbon and other combustible material;

“soot” means carbonaceous particles formed in incomplete combustion and deposited before emission;

“stack” means a flue, chimney, conduit or other device constructed for the purpose of discharging air contaminants into the atmosphere;

“stack height” means the vertical distance measured in metres between the points of discharge from a stack into the atmosphere and the land thereunder;

“standards” means the air quality standards established by the Kenya Bureau of Standards;

“stationary source” means any fixed building, structure, facility, installation, equipment or any motor vehicle, aircraft or diesel locomotive deposited, parked, moored, or otherwise remaining temporarily in place, which emits or may emit any air pollutant;

“sulphuric acid plant” means any facility producing sulphuric acid by the contact process of burning elemental sulphur, alkylated sulphuric acid, hydrogen sulphide, organic sulphides and mercaptans, or acid sludge, but does not include facilities where conversion

to sulphuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulphur dioxide or other sulphur compounds;

“shut down” means the cessation of operation of a facility or source, as the case may be, for any purpose;

“standard conditions” means a temperature of 293° K (20°C) and a pressure of 101.3 kilopascals (29.92 in Hg);

“suspended particulate matter” means all particulate material which persists in the atmosphere or in flue gas stream for lengthy periods because the particles are too small in size to have appreciable falling velocity;

“vehicle testing center” means any registered garage/workshop approved by the motor vehicle inspection unit for the purposes of inspecting motor vehicles on exhaust emissions,

“volatile organic compounds” means any organic compound with a boiling point of below 145°C which participates in atmospheric photochemical reactions;

“vapour” means gaseous phase of matter that can exist simultaneously in a liquid or solid state;

“worker” includes a person who has entered into or works under a contract of service or apprenticeship, written or oral, express or implied, whether by way of manual labour or otherwise; and

“workplace” includes any land, premises, location, vessel or thing at, in, upon or near where an employee is, in the course of employment.

Object

3. The objects of these Regulations are to —
- (a) provide for the prevention, control and abatement of air pollution;
 - (b) ensure sustenance of clean and healthy ambient air; and
 - (c) give effect to and ensure enforcement of the provisions of the Act.

Application of the Regulations

4. These Regulations shall apply to —
- (a) all premises, places, processes, operations, or works to which the provisions of the Act and Regulations made hereunder apply;
 - (b) all internal combustion engines; and
 - (c) other appliances or activities that the County Executive Committee Member may by order in the *Gazette*, specify.

PART II—AIR QUALITY STANDARDS

Ambient air quality tolerance limits

5. (1) The Ambient Air Quality Tolerance Limits shall be in accordance with Table I of the First Schedule to these Regulations.

(2) Sub-regulation (1) above shall apply also to primary ambient air quality standards which are requisite to protect public health and allow an adequate margin of safety.

(3) The Department shall in setting limits for ambient air quality levels referred to in Sub-regulation 5(1), take into account the factors set out under the First Schedule on general guidelines.

(4) No person shall exceed or cause to be exceeded the ambient air quality tolerance limits prescribed under table 1 of the first schedule of these Regulations.

Assessment thresholds

6. (1) The Department may classify the county into zones according to exposure or susceptibility of the population, ecosystem and national heritage.

(2) The Department shall review the classification of zones carried out in accordance with Sub-regulation 6(1) at least every five years.

(3) The Department shall establish air quality monitoring points to enable the review in Sub-regulation 6(2).

(4) The department under regulation 6(3) shall provide adequate information to the public on the spatial distribution of the ambient air quality in accordance with the Access to Information Act Cap. 7 of the laws of Kenya.

Maximum Permissible Emission Standards

7. (1) A person who undertakes an activity that emits air pollutants shall comply with the ambient air quality tolerance limits prescribed in the first schedule to these Regulations.

(2) A person shall not—

- (a) act in a way that directly or indirectly causes, or is likely to cause immediate or subsequent air pollution to levels that exceed the maximum emission limits;
- (b) emit any liquid, solid or gaseous substance in levels that exceed the ambient air quality tolerance limits prescribed for the zones applicable under Regulation 6 and in accordance with the emission permits and licenses issued under these Regulations; or
- (c) cause emission of the priority air pollutants prescribed in the Second Schedule to exceed ambient air quality tolerance limits prescribed in the First Schedule.
- (d) and in accordance with the emission permits and licenses issued under these Regulations.

(3) A person, owner or operator of a facility shall not cause or allow the emission of air pollutants in excess of the maximum permissible emission limits set out in the Third Schedule.

(4) Where, in relation to a particular air pollutant or air pollutant source, there are no maximum emission standards, targets or guidelines set out in these Regulations, the Department may apply, subject to such modifications, as it may deem fit, any nationally and internationally recognized emission standards, targets or guidelines applicable to that air pollutant or air pollutant source.

Exemptions

8. (1) The following operations may be permissible under these Regulations provided that they are not used for the disposal of refuse—

- (a) back-burning to control or suppress wildfires;

- (b) fire-fighting rehearsals or drills conducted by fire service agencies;
- (c) permitted traditional and cultural burning;
- (d) burning for purposes of public health protection and any other as may be approved by the County Executive Committee Member.

(2) Notwithstanding the provisions of regulation 8(1), any exemption granted under this Regulation shall be subject to prior written authorization by the County Executive Committee Member, which authorization shall specify the conditions, duration, and scope within which the exempted activity may be undertaken.

PART III — REGULATION OF AIR EMISSIONS FROM DIFFERENT SOURCES

General prohibition

9. (1) No person, owner or operator of a facility shall—
- (a) emit any liquid, solid or gaseous substance or deposit any such substance in levels exceeding those set out in accordance with Regulation 5.
 - (b) engage in Open burning of waste; or
 - (c) engage in open spray painting save for water-based paints.

Stationary Sources

Emission control from stationary sources

10. (1) A person shall not cause or allow the emission of air pollutants from a stationary source or intermittent sources in excess of the limits set out in schedule 1 to these Regulations.

(2) A person, operator or owner operating an industry or facility as listed in the Fourth Schedule shall not cause emission of any pollutant listed under the Second Schedule from any point sources—

- (a) without a valid Emission License issued in accordance with the provisions of the Act; and
- (b) in excess of the limits set out under the first schedule to these regulations.

(3) The provisions of regulation 10(3) (b) shall not apply to the start-up and shut-down of equipment in respect of which an Emission License has been issued under these Regulations.

(4) The Department may, where it has cause to believe that an industry or establishment may constitute a new source of air pollution, prevent that industry or establishment from commencing operations in accordance with the Act.

(5) A person shall not install within an undesignated area, any plant, equipment or industrial facility that is capable of emitting or causing to be emitted, into the atmosphere air pollutants as listed in the Second Schedule without an emission licence from the Department.

(6) The County Department responsible for matters related to physical and urban planning shall designate industrial areas where a plant, equipment or industrial facility referred to under regulation 10(1) may be installed.

Refusal of approval of an emission licence

11. (1) The Department may refuse approval of an emission licence for such new

installation in the premises described in regulation 10 if in its opinion such plant, equipment or facility may cause pollution.

(2) Where the Department grants permission for the plant, equipment or facility under regulation 11(1) it may impose conditions on such approval.

Mobile Sources

Emissions from Mobile Sources

12. (1) Every person, owner or operator of a mobile source shall ensure that emissions from vehicles comply with the emission standards prescribed under the applicable written law.

(2) Regulation 12(1) shall apply also to portable sources of air pollution that are commonly and by usual practice moved from one place to another, without remaining in one place for more than two (2) years.

Control of emissions from mobile sources

13. (1) Every person, operator or owner of a mobile source shall control the emission of priority air pollutants set out in the Second Schedule.

(2) A person shall not cause or allow the emission of air pollutants from an idling vehicle, tricycle, construction equipment or machinery or motor cycle except under, emergency or in active traffic.

Testing of motor vehicles

14. (1) The Department in consultation with the relevant county department, or institution responsible for motor vehicle inspection may at any time order the emission testing of a vehicle releasing exhaust emissions.

(2) In performing its functions under regulation 14(1), the department shall ensure that—

- (a) all commercial and public service vehicles undergo emission tests annually; and
- (b) all private vehicles over ten years old undergo emission tests once every two years.

(3) The emission tests referred to in regulation 14(2) shall be carried out by the relevant county department responsible for the motor vehicle testing or accredited emission vehicle testing centres.

Emission reduction measures

15. The person, owner or operator of a motor vehicle may use any of the emission reduction technologies or measures specified under the Eleventh Schedule or any other technology acceptable to the Department in order to meet the emission standards stipulated under these Regulations.

Fugitive Emissions

Fugitive Emission Reduction Measures

16. (1) Operators of facilities that have the potential to cause fugitive emissions shall take precautionary measures to control and minimize fugitive emissions.

(2) The Department shall inspect fugitive emissions in determining whether a stationary source of air pollutants is a major source of pollution in a given area.

Fugitive emission control plan

17. (1) The Department may, as part of the requirements of an application for a pollution control License for a Non-attainment facility with a fugitive emission air pollutant source, require the applicant to submit a written fugitive emission control plan for the control of fugitive particulate emissions.

(2) All facilities with potential sources of fugitive emissions shall develop, implement, and maintain a Fugitive Emission Control Plan, detailing methods for monitoring, preventing, and mitigating unintended emissions.

(3) The fugitive emission control plan shall include —

- (a) regular inspection schedules;
- (b) leak detection and repair procedures; and
- (c) reporting protocols.

(4) The fugitive emission control plan shall be updated annually to reflect advancements in control technologies and best practices.

(5) The Department shall review a fugitive emission control plan within forty-five days of receipt, and shall, before the end of that period, notify the applicant as to whether the plan is approved, disapproved, or if further information is required.

(6) (a) Where a fugitive emission control plan is disapproved, the Department shall, within twenty-one days, issue a notification to the licensee informing them of the disapproval and setting out the reasons therefor.

(b) The Department may—

- (a) issue a provisional licence pending rectification; and
- (b) give the licensee thirty days from the date of delivery of the notification to revise and resubmit the fugitive emission control plan.

(7) Where, after reviewing a resubmitted fugitive emission control plan, the Department determines that certain aspects of the plan remain unsatisfactory, it may approve the plan subject to such conditions or modifications as it deems necessary to mitigate those unsatisfactory aspects.

(8) The Department shall issue a notification on the approved plan under regulation 17(7), stating the reasons for any conditions or modifications imposed on it.

(9) The Department may review any approved fugitive emission control plan annually, and where it determines that the objectives of the plan have not been met, it shall require the submission of a revised plan within sixty days.

(10) For the purposes of this regulation, fugitive emission air pollutants shall include those set out in the Second Schedule to these Regulations.

*Other sources of emissions**Dispersion of particulate matter*

18. A person, owner or occupier of a premise shall not cause or permit the dispersion of particulate matter during the construction or demolition of any structure or building.

Odour emission

19. (1) A person, owner or occupier of a premise who causes or permits the generation of any odour that unreasonably interferes, or is likely to unreasonably interfere,

with another person's lawful use or enjoyment of property shall employ recognized good practices and procedures to reduce such odours.

(2) A person, owner or occupier of a premise shall not cause or permit the emission of odorous air contaminants from any source in a manner that results in a detectable odour.

(3) Where the source of odour is a manufacturing process, the source shall have an affirmative defense to a violation of regulation 19(1) if it demonstrates to the satisfaction of the Department that it is utilizing the best practical treatment, maintenance, and control currently available to achieve the lowest feasible emission of odorous gases, and provides records or evidence of such measures upon request.

Excessive emissions

20. (1) A person, owner or operator of a facility shall report to the Department any event that results in excess emissions by—

- (a) notifying the Department of such event within twenty-four hours; and
- (b) submitting a written report to the Department within fourteen days after the occurrence of the event, describing the circumstances surrounding the event and the corrective measures taken or planned to prevent a recurrence of the same.

(2) A person, owner or operator of a facility shall report promptly to the department any foreseeable threat of air pollution.

(3) Where emission limits are exceeded in any area, the Department shall promptly notify the public through the public media.

Emission report

21. (1) A licensee shall submit an emissions report for each calendar year to the Department within three months after the expiry of the licence, unless the Department directs otherwise.

(2) An emissions report shall include the information specified in Part IV of the Fifth Schedule to these regulations.

(3) A licensee shall report to the Department any foreseeable threats of excessive emissions.

PART IV—RESTRICTION ON EMISSIONS FROM CERTAIN ACTIVITIES

Declaration of a non-attainment area

22. (1) The county Executive Committee Member responsible for matters related to Environment may, declare an area as a non-attainment area where—

- (a) ambient air quality tolerance limits are being, or are likely to be, exceeded in the area; or
- (b) where any other circumstance exists that is causing, or is likely to cause, a significant adverse impact on human health, the environment, or national heritage; or
- (c) the area requires a specific air quality management action plan to rectify the situation.

(2) The county Executive Committee Member shall recall the Emission Licenses for all emitting sources in the non-attainment area.

(3) Regulation 22(2) shall not apply to industries that use the best available technology for proven emission reduction.

(4) The county Executive Committee Member may withdraw the declaration of a non-attainment area under regulation 22(1) if the area is in compliance with ambient air quality tolerance limits for a period of at least three months.

(5) A person shall not cause pollution in a non-attainment area listed under the Thirteenth Schedule to these Regulations in a manner that exceeds the limits specified in the Emission License.

Emissions from open burning of combustible material

23. (1) A person, owner or occupier shall not carry out open burning of any combustible material without a permit issued under these Regulations.

(2) A person, owner, or occupier who intends to light a bonfire for ceremonial purposes shall notify the Department of the materials to be burned, the location, and the intended duration and the Department shall issue a written approval.

(3) Without limiting the general effect of regulation 23 (1), a person, owner or occupier may cause, allow or permit open burning of any combustible material under the following circumstances —

- (a) the burning is carried out for purposes of undertaking health and safety procedures in the petroleum or the petrochemical industry;
- (b) the burning is carried out for purposes of research on the causes and control of fires; or
- (c) the burning is carried out for the instruction and training of public or industrial firefighting personnel, with the approval of the Department.

(4) A person who has obtained approval from the Department to carry out open burning, shall ensure that the burning is conducted in a manner that minimizes emissions from the burning and reduces the impacts of smoke on the health and welfare of the public.

(5) Regulation 23 (3) shall not apply to emissions resulting from the burning of oil where the burning gases are directed to the open air through a stack, chimney or exhaust pipe.

Open burning permit criteria

24. (1) Open burning permits shall not be issued to designated non-attainment areas.

(2) The Department shall consider the following factors in determining whether, to issue a general open-burning permit and the conditions to be attached to such permit—

- (a) the location and proximity of the proposed burning to any building or other structure;
- (b) the prevailing and forecast meteorological conditions for the period during which the proposed burning is to be conducted;
- (c) the applicant's compliance with the Department's applicable fire protection and safety requirements;
- (d) the potential contribution of the proposed burning to air pollution in the area; and

(e) the potential smoke impact arising from large fires.

(3) The permit may be granted on condition that the open burning is within permissible levels of pollution.

PART V— TRANS - BOUNDARY AIR POLLUTION LIMITS

Trans-Boundary air pollution

25. (1) A person, owner or operator of a non-attainment facility shall ensure that emissions from their facility do not cause air pollution in any other County outside Nairobi City County in excess of the ambient air quality tolerance limits prescribed in the first schedule to these regulations.

(2) Where Trans-boundary air pollution is detected, the County Executive Committee Member shall cause an air quality investigation to be undertaken for the purpose of determining the extent of such contribution to Nairobi and shall forthwith notify the Director-General of the National Environment Management Authority, who shall take the appropriate action.

PARTVI— AIR QUALITY MANAGEMENT AND MONITORING PLAN

Air quality management plan

26. (1) The Department shall develop an air quality management plan for the purpose of achieving the prescribed ambient air quality tolerance limit values for all controlled air pollutants.

(2) The air quality management plan shall include measures intended to ensure compliance with the prescribed ambient air quality tolerance limit values within six months of the gazettment of these Regulations.

Objectives of the air quality management plans

27. (1) An air quality management plan shall —

- (a) be within the domain of the Department and shall seek to —
 - (i) coordinate air quality management in the affected area;
 - (ii) improve air quality;
 - (iii) identify and reduce the adverse impacts of poor air quality on health and the environment;
 - (iv) mitigate the effects of emissions arising from the use of petroleum fuels in residential areas;
 - (v) mitigate the effects of emissions from industrial sources;
 - (vi) address the effects of emissions from any point or non-point source of air pollution not otherwise provided for in paragraphs (iv) and (v);
 - (vii) give effect to the county' and national government's obligations in respect of international and regional agreements; and
 - (viii) promote and uphold best practices in air quality management;
- (b) provide the measures through which the department shall give effect to the air quality management plan; and
- (c) comply with any additional requirements as the department may be prescribe.

(2) For purposes of implementing the air quality management plan, the plan may provide for the establishment of a committee composed of relevant stakeholders.

Contents of Air Quality Management Plans

28. The contents of the air quality management plan shall—
- (a) designate the air quality management zones;
 - (b) domesticate the air quality management zones;
 - (c) report on the status of the air quality management zones;
 - (d) identify and report on major sources of air pollution;
 - (e) prescribe emission limits applicable to each zone;
 - (f) provide for the review of permits and reports; and
 - (g) address any other matter that the department may prescribe.

Reporting on implementation of the air quality management plan

29. The county Executive Committee Member shall submit to the county assembly an annual report on the implementation of the air quality management plan which shall include—

- (a) a description of the air quality management initiatives undertaken by the Department during the reporting period;
- (b) an assessment of the Department's level of compliance with the prescribed air quality standards;
- (c) the measures taken by the Department to secure compliance with those standards; and
- (d) the Department's air quality monitoring activities.

Air quality monitoring

30. (1) The Department shall designate at least one monitoring station per zone as defined by the air quality management plan for monitoring the priority air pollutants provided in the Second Schedule to these Regulations.

(2) Where a zone fails to meet the ambient air quality tolerance limits prescribed under these Regulations, the County Executive Committee Member shall declare the zone a non-attainment area.

(3) Subject to regulation 30(2), the Department shall develop an air quality management plan for the area to regulate air pollution emissions from both stationary and mobile sources, or as the Department may otherwise determine.

(4) Stationary sources located within non-attainment areas shall be required to prepare an air quality management plan specifying the measures the facility shall undertake to reduce its emissions and shall re-apply for an emission licence in accordance with the Act and these Regulations.

(5) Stationary sources with the potential to emit toxic air pollutants, as prescribed in the Second Schedule to these Regulations, shall monitor emissions at the point of discharge.

(6) Subject to regulation 30(5) the monitoring shall be expressed in metric units consistent with the emission targets set out in these Regulations.

(7) Stationery sources shall submit an emission report to the Department on a quarterly basis.

(8) The department may conduct random checks on equipment used for monitoring toxic emissions.

(9) The department may require facilities in controlled areas to monitor some of the criteria pollutants on a continuous basis using a methodology pre-approved by the department.

(10) The department may require facilities listed in the fourth schedule to these Regulations to install, calibrate, maintain and operate equipment for continuous monitoring and recording emission levels in accordance with these Regulations, or to use equivalent emission measuring systems as may be approved by the Department.

(11) The Department may request pre-qualified third-party professionals to carry out monitoring of emissions from stationary or mobile sources or on its behalf.

(12) The Department may in consultation with national government lead agencies issue guidelines, including those listed under the Fifth Schedule to these Regulations, on the monitoring of air pollutants.

Public participation in the preparation of air quality management plans

31. (1) The Department shall ensure that there is public participation in the process of preparing, modifying or reviewing an air quality management plan.

(2) Subject to Regulation 31(1) s, the Department shall—

- (a) inform the public of the proposal, any relevant background information and the right of the public to participate in the preparation of the plan;
- (b) specify the means by which the public can participate in the process, including an address for responses, and a reasonable timescale for the consultation; and
- (c) take account of the results of the public participation in drawing up the plan.

(3) Upon publication of the plan, the Department shall provide the public with information explaining the rationale for the contents of the plan and the public participation process undertaken.

Monitoring and Record Keeping

32. (1) The Department shall require a person, owner or occupier of a facility to install, operate, maintain and calibrate one or more approved air quality monitoring equipment and recorders.

(2) The department shall require a person, owner or occupier of a facility to keep records of air quality in the facility in accordance with the Seventh Schedule to these Regulations.

(3) A person, owner or operator of a controlled facility shall complete the installation and performance testing of the air quality monitoring equipment and provide evidence of monitoring and recording of air quality within the facility, prior to being granted an Emission Licence.

Provision of service for stack sampling

33. Where the Department requires stack emission tests to be performed under these Regulations, a person, owner or operator of the facility shall provide —

- (a) sampling ports which are adequate for the test methods applicable to the facility as set out in the tenth schedule to these Regulations;
- (b) safe sampling platforms or other suitable permanent or temporary structures or equipment; and
- (c) safe access to sampling platforms.

County to Maintain Database

34. The Department shall maintain up-to-date records of air quality measurements in the County Air Quality database.

PART VII — INSPECTION, MONITORING AND REPORTING*Initial emission assessment report*

35. (1) A person, owner, operator or occupier of any stationary source shall, not later than one year from the date of coming into force of these Regulations, submit an initial emission assessment report to the Department.

- (2) The person, owner, operator or occupier shall—
 - (a) submit an initial emission assessment report in accordance with the guidelines set out in form 1 of the Ninth Schedule to these Regulations; and
 - (b) submit a report on the emission control devices currently in use at the facility, including an assessment of what constitutes the best available technology for the source, together with supporting technical and economic documentation.

Atmospheric impact report

36. (1) The Department shall require a person operator, owner or occupier to submit an atmospheric impact report in accordance with the guidelines set out in Part XIV of the Fifth Schedule to these Regulations.

(2) All atmospheric impact reports shall be delivered to the Department within ninety days from the date of completion of testing.

State of the City Air Quality report

37. (1) The county Executive Committee Member shall table to the county assembly annual reports on the state of the County's air quality.

- (2) The annual report shall include—
 - (a) information on all locations where levels of controlled pollutants have exceeded limit values, target values, information and alert thresholds for the relevant averaging periods set out in the First Schedule to these Regulations;
 - (b) a summary assessment of the impacts arising from the information referred to in paragraph (a); and
 - (c) any other information as may be appropriate.

Period for storing records

38. A person, owner, operator or occupier licensed under these Regulations shall maintain reports for a period of at least three years or such other period as may be prescribed by the Department.

PART VIII— LICENCING

Application for Emission License for stationary sources

39. (1) A person, owner or operator of any facility likely to emit air pollutants shall, within twelve months from the date of coming into force of these Regulations, apply to the Department for an Emission Licence by submitting an application in the form set out in Form I of the Eighth Schedule to these Regulations.

- (2) An application for an emission licence shall be deemed complete when—
- (a) the application form has been duly completed and all required information, including supporting data and calculations, have been provided;
 - (b) in the case of a facility that failed to comply with the provisions of a previous licence, the application is accompanied by an air quality compliance plan outlining the proposed corrective activities;
 - (c) an authorised officer has certified the truth, accuracy, and completeness of the application in the manner provided in the application form; and
 - (d) the application is accompanied by proof of payment of the prescribed emission licence application fee.

Grant of Emission License

40. (1) Where the Department considers that the application under regulation 39 is complete, it shall within thirty days from the date of receipt of the application, issue the applicant with a provisional Emission License in Form III as set out in the Eighth Schedule to these Regulations.

(2) Where the Department considers that an application under these Regulations is incomplete, it shall notify the applicant accordingly within fifteen days of receipt of the application.

(3) A notification under regulation 40(2) shall be in writing and shall specify the information needed to make the application complete and prescribe a thirty-day time frame for response from the applicant.

(4) A person, owner or operator of a facility granted a provisional License under regulation 40(1) may after twelve months of operation of the facility, apply to the Department for grant of a full Emission License.

(5) Where the Department considers that the application referred to in regulation 40(4) is complete, it shall within thirty days from the date of receipt of the application issue the applicant with a full Emission License in Form IV set out in the Eighth Schedule to these Regulations.

(6) The conditions of an Emission License issued under these Regulations shall include a requirement for the licensee to apply the best available techniques or technologies taking into account and balancing the cost to the operators with the environmental benefits.

Transfer of Emission License

41. (1) Where the facility is sold or otherwise disposed of by the original owner or operator —

- (a) the transferor of a License under these regulations shall be liable for all obligations and liabilities arising prior to the effective date of transfer; and
- (b) the transferee shall be responsible for any future liabilities or any obligations and liabilities imposed with regard to the License from the date the transfer becomes effective.

(2) Notwithstanding regulation 41(1) the holder of an Emission License may apply to the Department for the variation of the License.

(3) An application under regulation 41(2) shall be in Form IX set out in the Eighth Schedule to these Regulations and shall be accompanied by the prescribed fee.

Variation of Emission License

42. (1) The Department shall, upon receipt of an application for variation of an Emission License, consider the application within thirty days.

(2) The Department may vary the Emission License with such conditions as it may deem necessary.

(3) Where the variation is approved, the Department shall issue a certificate of variation in Form X set out in the Eighth Schedule to these Regulations.

Compliance Plan

43. (1) The Department may require the completion of a compliance plan as part of the conditions of a control order issued under Regulation 45, or as part of an application for the grant or renewal of a license.

(2) A compliance plan shall contain the elements set out in Part X of the Fifth Schedule to these Regulations.

Suspension, revocation or cancellation of Emission License

44. (1) The Department may at any time after issuing an Emission License under these Regulations—

- (a) suspend the License on such terms and conditions as it may deem fit;
- (b) revoke the license; or
- (c) cancel the License.

(2) A License shall be suspended, revoked or canceled under regulation 44 (1) where—

- (a) the license holder contravenes any condition set out in the License;
- (b) there is a substantial change or modification in the activities for which the licence was issued;
- (c) the emission poses a health or environmental threat that could not be reasonably foreseen before the License was issued;
- (d) it is established that any information or data provided by the license holder in support of their application for an Emission License was false, incorrect or intended to mislead;
- (e) the License holder fails to comply with a control order issued under these Regulations; or
- (f) the License holder fails to submit or comply with a compliance plan as required under these Regulations.

PART IX— ADMINISTRATIVE ARRANGEMENTS

Control order

45. (1) The Department may issue a control order where—
- (a) there is a breach of any provision of these Regulations
 - (b) there is a breach of any term or condition of a License; or
 - (c) in response to such breach.
- (2) A control order shall—
- (a) specify the breach in respect of which it is issued;
 - (b) specify the measures to be taken to ameliorate the effects of the breach;
 - (c) specify the time within which the measures in paragraph (b) shall be taken; and
 - (d) where appropriate, require the immediate cessation of the breach.

Powers of air quality inspectors

46. An air quality inspector in addition to the powers conferred under section 35 of the Act, may at any reasonable time—
- (a) stop the emission of air pollutants from any source; and
 - (b) enter upon any premises where air pollution is being or has been generated.

Improvement notice

47. (1) Where an air quality inspector has reasonable cause to believe that any person is violating these Regulations, may issue against that person an improvement notice in a prescribed form in accordance with section 35 (3) (g) of the Act or take any other measures provided for under section 35 of the Act.

(2) An improvement notice issued under sub regulation (1) shall not prejudice any other action which may be taken under the Act.

Appeal

48. Any person who is aggrieved by the decision of the Department pursuant to the exercise of its powers under this Part may appeal to the committee established under section 44 of the Act.

Register of emission control licenses

49. The Department shall maintain an up-to-date register of emission control Licenses as set out in Form XI under the Eighth Schedule to these Regulations.

Access to emission reports

50. (1) The Department shall maintain a register of emission and monitoring reports made or received under these Regulations.

(2) Emission and monitoring Pollution reports kept by the Department shall be public documents which may be accessed and inspected by any person on payment of the prescribed County fees.

PART X—FINES, OFFENCES AND PENALTIES.

Fine

51. (1) A person who engages in open waste burning shall be liable to pay a fine not exceeding twenty thousand Kenya shillings or to imprisonment not exceeding six months or both.

(2) The fine shall be payable each time a contravention occurs and shall remain applicable for as long as the unlawful situation persists.

(3) Where a contravention has been committed by or on behalf of a corporate body, association or other entity, any fine prescribed for that contravention shall be imposed on that corporate body, association or entity.

(4) Where a person fails to make any payment required under these Regulations on or before the date on which the amount becomes payable, that person shall, in addition to the amount due, be liable to pay a penalty surcharge of five percent of the amount in default for each day during which the default continues.

Administrative Notice

52. (1) The Department may serve an administrative notice on any person whom it has reasonable grounds to believe has committed an offence under these regulations.

(2) A person who breaches the administrative notice shall be liable to prosecution in respect of the alleged offence.

Offences relating to release of air pollutants

53. (1) A person who—

- (a) emits air pollutants into the air in contravention of these Regulations; or
- (b) causes emissions from any source in excess of the prescribed standards, commits an offence and shall be liable upon conviction -
 - (i) in the case of an individual, to a fine not exceeding twenty thousand Kenya shillings or to imprisonment for a term not exceeding six months or both; or
 - (ii) in case of motor vehicles, to a fine not exceeding fifty thousand Kenya shillings or to imprisonment for a term not exceeding six months or both; or
 - (iii) in the case of industries and other large facilities, to a fine of not less than one million Kenya shillings and not exceeding ten million Kenya Shillings.
- (c) continues to contravene any provision of these Regulations or who is subsequently convicted of the same offence under these Regulations, shall be liable upon conviction to a fine not exceeding five hundred thousand Kenya shillings in accordance with the Act.

PART XI—GENERAL PROVISIONS

Fees

54. The fees prescribed in the Twelfth Schedule to these Regulations shall be payable in respect of all applications and licenses issued under these Regulations.

Operation of Regulations

55. These Regulations shall, without prejudice, operate in addition to any other Regulations or standards prescribed under the Act or any other applicable law.

FIRST SCHEDULE (r. 5, 6, 7, 38)
 AMBIENT AIR QUALITY TOLERANCE LIMITS

Table 1: Ambient Air Quality Tolerance Limits

<i>Pollutant</i>	<i>Industrial/ Residential</i>	<i>Averaging Time</i>	<i>Tolerance Limits</i>	<i>Description</i>
Sulphur Dioxide (SO ₂)	Residential	1-hour	60 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Industrial	3-hour	0.5 ppm	Not to be exceeded more than once per year
Nitrogen Dioxide (NO ₂)	Industrial	1-hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Residential and industrial	Annual	60 ppb	Annual mean
Ozone (O ₃)	Residential/ industrial	8-hour	0.25 ppm	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particulate Matter (PM _{2.5})	Residential	Annual	25 µg/m ³	Annual mean, averaged over 3 years
	Industrial	Annual	35 µg/m ³	Annual mean, averaged over 3 years
	Residential/ Industrial	24-hour	35 µg/m ³	98th percentile, averaged over 3 years
Particulate Matter (PM ₁₀)	Residential/ Industrial	24-hour	200 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Lead CO ₂ and CO				
Hydrogen Sulphide H ₂ S				
Non-methane hydrocarbons				
Total VOC				

Legend

- (a) µg- microgram
- (b) m³ – cubic metre
- (c) ppm – parts per million
- (d) ppb – parts per billion
- (e) Values at Standard Temperature and Pressure (STP)
- (f) Conversion factors from ppm to mg/m³ and mg/m³ to ppm are stipulated under part II of the Fifth Schedule.

- (g) * [Annual Arithmetic mean of minimum 104 measurements in a year taken twice a week 24 hourly at uniform interval.]
- (h) •[** 24 hourly/8 hourly values should be met 98% of the time in a year. However, 2% of the time, it may exceed but not on two consecutive days.]
- (i) Whenever and wherever two consecutive values exceeds the limit specified above for the respective category, it would be considered adequate reason to institute regular/continuous monitoring and further investigations.
- (j) * the 24-hour limit may not be exceeded more than three times in one year;
- (k) ** 24-hour limit may not be exceeded more than three times in one year micrograms/m³
- (l) *** Not to be exceeded more than once per year average concentration
- (m) ***In conversion of units from ppm to mg/m³ and vice versa shall use guidelines set out under Part II of the Fifth Schedule.

Table 2: Ambient Air Quality at Property Boundary for General Pollutants

	<i>Pollutant</i>	<i>Time weighted Average</i>	<i>Property Boundary</i>
1	Particulate matter (PM)	Annual Average*	50 µg/m ³
		24 hours**	70 µg/m ³
2.	Oxides of Nitrogen (NOX);	Annual Average*	80 µg/m ³
		24 hours**	150 µg/m ³
3.	Sulphur oxides (SOX);	Annual Average*	50 µg/m ³
		24 hours**	125 µg/m ³
4.	Hydrogen Sulphide	24 hours**	50 µg/m ³
5.	Ammonia	24 hours**	100 µg/m ³

Note.

- (i) For residential premises in designated industrial areas, the above standards do not apply.
- (ii) For industries in designated residential areas, standards for residential areas shall apply

SECOND SCHEDULE (r. 6, 7, 10, 13, 18, 31)
PRIORITY AIR POLLUTANTS

Part I: General Source Pollutants

- (a) Particulate matter (Dust, black smoke, smog, aerosols);
- (b) Sulphur oxides (SOX);
- (c) Nitrogen oxides (NOX);
- (d) Carbon monoxide (CO)
- (e) Carbon dioxide (CO₂);
- (f) Hydrocarbons (HC);
- (g) Volatile organic Compounds (VOC);
- (h) Hydrogen Sulphide (H₂S);
- (i) Hydrogen Chloride (HCl);
- (j) Lead and its compounds;
- (k) Mercury vapour (Hg)
- (l) Ozone (O₃);
- (m) Dioxins and furans (PCDD and PCDF).

Part II: Mobile Source Pollutants

- (a) Hydrocarbons (HCs)
- (b) Volatile organic Compounds (VOC);
- (c) Sulphur dioxide (SO_x)
- (d) Nitrogen oxides (NO_x)
- (e) Particulates (PM)
- (f) Carbon Monoxide (CO)

Part III: Greenhouse gases (GHG)

- (a) Carbon dioxide (CO₂);
- (b) Methane (CH₄);
- (c) Nitrous oxides (N₂O);
- (d) Hydrofluorocarbons (HFCs);
- (e) Perfluorocarbons (PFCs); and
- (f) Sulphur hexafluoride (SF₆)

THIRD SCHEDULE

(r. 7)

EMISSION LIMITS FOR CONTROLLED AND NON-CONTROLLED FACILITIES

Air Pollutant	Opacity	Particulate (Dust) PM10 (mg/Nm ³)		Sulphur oxide (SOX) (mg/Nm ³)		Nitrogen oxides (NOX) (mg/Nm ³)		O ₂ %	Carbon monoxide (mg/Nm ³)	Carbon dioxide (mg/Nm ³)	Hydrocarbons (mg/Nm ³)	Hydrogen sulphide (mg/Nm ³)	Hydrogen chloride (mg/Nm ³)	Hydrogen fluoride (mg/Nm ³)	Dioxins/Furans
		NDA	DA	NDA	DA	NDA	DA								
Aluminium recycling plants		10 – 30									20		*		*
Asphalt mixing batch plants		< 100 t: 100 to 300t: 22g/kg 300 to 500t: 31g/kg > 500 t: 33 g/kg		2000		460			*	*	20				
Boilers	*	50		*		*			*	*	*	*			*
Cement plants		50		400		1500			*	500	300				0.5ng/Nm ³
Ceramics manufacture		400				180-250 ppm									
Coke and coal plants		*		*		*			*	*	*	*	*		
Dairy		50													
Fertilizer plant		50		*		500				20	30			50	
Iron Foundry		50		560					*	*				5	
Brass bronze Foundry		50		20 - 50											
Glass Manufacture		20 - 50		Oil fired: 1,800 Gas fired: 700		1000 - 2000							50	5	
Galvanizing operations	*	50													
Incinerators		* < 10 t: 4g/kg 10 to 30t: 10g/kg 30 to 50t: 10g/kg	500			Existing: 130- 600 ppm			*	*					2.0 – 80 ng – TEQ/Nm ³

Air Pollutant	Opacity	Particulate (Dust) PM10 (mg/Nm ³)		Sulphur oxide (SOX) (mg/Nm ³)		Nitrogen oxides (NOX) (mg/Nm ³)		O ₂ %	Carbon monoxide (mg/Nm ³)	Carbon dioxide (mg/Nm ³)	Hydrocarbons (mg/Nm ³)	Hydrogen sulphide (mg/Nm ³)	Hydrogen chloride (mg/Nm ³)	Hydrogen fluoride (mg/Nm ³)	Dioxins/Furans
		NDA	DA	NDA	DA	NDA	DA								
Industry		10g/kg > 50 t: 17.5 g/kg				New: 60-400 ppm									0.1 – 5 ng – TEQ/Nm ³
	Municipal waste	100				300			*	*					
	Medical waste	20 (PM2.5)		500		300			*	*	*		*		*
	Industrial waste	* 50		150		460			*	*	*	*	*		*
Kraft pulp mills		100-150		500		600			*	*	20	15	*	*	*
Lead Recycling plants		20 (PM2.5)		400											*
Mineral Processing		50													
Mining and Quarry	20%	400													
Non-ferrous secondary smelters		50		20		*			*	*	*	*			
Non-ferrous secondary smelters*	< 10 t: 7.5 g/kg (PM2.5)			800		*			*	*	20	15			*
	10 to 30 t: 22.5 g/kg (PM2.5)														
	30 to 50 t: 37.5g/kg (PM2.5)														
	> 50 t: 52.5 g/kg (PM2.5)														
Paint and varnish manufacturing		50 (PM2.5)									20	15	10		
Pesticides formulation		20 (PM2.5)									20	5			

Air Pollutant / Industry	Opacity	Particulate (Dust) PM10 (mg/Nm ³)		Sulphur oxide (SOX) (mg/Nm ³)		Nitrogen oxides (NOX) (mg/Nm ³)		O2%	Carbon monoxide (mg/Nm ³)	Carbon dioxide (mg/Nm ³)	Hydrocarbons (mg/Nm ³)	Hydrogen Sulphide (mg/Nm ³)	Hydrogen Chloride (mg/Nm ³)	Hydrogen Fluoride (mg/Nm ³)	Dioxins/Furans	
		NDA	DA	NDA	DA	NDA	DA									
Pesticide manufacturing		20									20					
Petroleum Refineries		50		Sulphur recovery: 150		460			*	20	152				*	
				Combustion units: 500												
Pharmaceuticals manufacturing plants		20								80		10				
Printing industry										20		10				
Steel mills *		Existing - 240 (PM2.5) New- 120 (PM2.5)		500		200										
						180										
Sulphuric acid Plants		50		SO2: 2 kg/t acid												
				SO3: 0.15 kg/t acid												
				< 100 t: 3.75g/kg												
				100 to 300 t: 10.5 g/kg												
				300 to 500 t: 34.5g/kg												
> 500 t: 48 g/kg																
Sugar Manufacture		< 8.7 mw input boiler): 150 (>8.7 mw input boiler): 100		2000		Liquid fuels: 460 ppm										
						Solid fuels: 750 ppm										
Soda ash Manufacture		50										*				
Tanneries		50		1000		1500				20	15	*			*	

Legend

SF: Sulphur Fuel

* 1.5-3.0% only justified by project specific considerations i.e. add secondary treatment to meet levels of 1.5% Sulphur

** dependent on water availability for injection

CI: Compression Ignition SI:

Spark Ignition

DF: Dual Fuel DA:

Degraded Area

NDA: Non-degraded Area

The chimney or stack should have a minimum height of 10 metres above ground level and clear the highest of the building by not less than 3 metres for all roofs. The topography and height of adjacent buildings within 50 metres radius should be taken into account.

Toxic Equivalent (TEQ) is the sum of the toxic equivalent factors (TEF) of a mixture congeners contained in a compound. The compound 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) was assigned a TEF of 1 after being identified, by International Association of Radiology and Cancer (IARC) and World Health Organisation (WHO), as the most toxic of all compounds, and as carcinogenic to humans, based mainly on studies of cases involving accidental or occupational heavy exposure. Therefore the TEF is a weighting factor.

g - gram

 μ g- microgram

kg – kilogram (1,000g) mg - milligram

 μ g- microgram m³ – cubic metre

ppm – parts per million

FOURTH SCHEDULE

(r 10, 31)

GUIDELINES ON AIR POLLUTION MONITORING PARAMETERS FROM STATIONARY SOURCES

Industry Air Pollutant	Opacity	Particulate (Dust)	Sulphur oxide (SOX)	Nitrogen oxides (NOX)	Carbon monoxide	Carbon dioxide	Hydrocarbons	Hydrogen Sulphide (H2S)	Hydrogen Chloride	Dioxins/Furans
Aluminium recycling plants		*					*		*	*
Asphalt plants		*	*	*	*	*	*			
Boilers	*	*	*	*	*	*	*			*
Cement plants		*	*	*						
Ceramics manufacturing plants		*								
Coke and coal plants		*	*	*	*	*	*	*	*	*
Fertilizer plant		*	*	*	*	*	*			
Galvanizing plants		*			*	*			*	*
Glass manufacturing plants		*	*	*						*
Iron Foundry plant		*	*	*	*	*	*	*	*	*
Kraft pulp mills		*	*							*
Lead Recycling plant		*	*							
Mineral Processing plants		*								
Mining and Quarry	*	*								
Municipal and Industrial incinerators	*	*	*	*	*	*	*	*	*	*
Non-ferrous smelters, secondary	*	*	*	*	*	*	*	*	*	*
Paint and varnish manufacturing		*					*		*	
Pesticides formulation		*					*			
Pesticide Manufacturing plants		*								

Industry Air Pollutant	Opacity	Particulate (Dust)	Sulphur oxide (SOX)	Nitrogen oxides (NOX)	Carbon monoxide	Carbon dioxide	Hydrocarbons	Hydrogen Sulphide (H2S)	Hydrogen Chloride	Dioxins/Furans
Petroleum Refineries			*		*		*			*
Pharmaceuticals manufacturing plants		*					*		*	
Printing industry							*		*	
Steel mills	*	*	*	*	*					

Sugar manufacturing plants	*	*	*								
Sulphuric acid Plants	*	*									
Salt and Soda ash processing plants	*							*			
Thermal Power Plants	*	*	*	*	*						*
Geothermal Power Plants			*	*			*	*			
Tanneries	*	*	*			*	*		*		*
Textile	*					*					
Waste water Treatment Plants			*			*	*				

And any other parameter as may be prescribed by the Department from time to time

Legend

(a) * - parameters to be monitored

(b) Frequency – dependent on parameter and reported on a quarterly basis

General Guidelines

FIFTH SCHEDULE

(r 2,5,22,31,37,44)

Part I - Exempted Equipment and Activities

- (a) Air pollutant detector, air pollutant recorder, combustion controller or combustion shut-off.
- (b) Air conditioning or comfort ventilating systems.
- (c) Vacuum cleaning systems used exclusively for office applications or residential housekeeping.
- (d) Ventilating or exhaust systems for print storage room cabinets.
- (e) Exhaust systems for controlling steam and heat.
- (f) Maintenance, repair, or replacement in kind of equipment for which a permit to operate has been issued.
- (g) Equipment which emits only nitrogen, oxygen, *carbon dioxide*, and/or water vapour.
- (h) Ventilating or exhaust systems used in eating establishments where food is prepared for the purpose of consumption.
- (i) Equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air.
- (j) Fireworks display.
- (k) Outdoor painting and sand blasting equipment.
- (l) Lawnmowers, tractors, farm equipment and construction equipment.
- (m) Fire schools or fire fighting training.
- (n) Residential wood burning stoves and wood burning fireplaces.
- (o) Buildings, cabinets, and facilities used for storage of chemicals in closed containers.
- (p) Sewage treatment facilities.
- (q) Water treatment units.
- (r) Inactive wastewater treatment systems.
- (s) Non-contact water cooling towers (water that has not been in direct contact with process fluids).
- (t) Laundry dryers, extractors, or tumblers used for fabrics cleaned with a water solution of bleach or detergents.
- (u) Equipment used for hydraulic or hydrostatic testing.
- (v) Blueprint copiers and photographic processes.
- (w) Inorganic acid storage tanks equipped with an emission control device.
- (x) Any fuel burning equipment used exclusively for providing domestic electrical power of a capacity not greater than 100 KVA.

Part II — Guideline on Conversion factors(a) ppm to mg/m³ - air

The conversion between ppm and mg/m³ is dependent on both the molecular weight of the substance and the temperature at which the conversion is made. The assumption is that the pollutant behaves as an ideal gas and as such, 1 mole of the substance occupies 22.4 litres at standard temperature (273K) and pressure (101.3 kPa). This is consistent with normalised concentrations, and it is therefore not normally necessary to take account of the temperature or pressure difference in the conversion. However, when converting ppm to mg/m³ at actual discharge conditions, it is important to take account of the necessary factors.

To convert from ppm to mg/m³, the following formula should be used: $\text{mg/m}^3 = \text{ppm} \times (\text{MW}/22.4) \times (273/\text{T}) \times (\text{P}/101.3)$

Where MW is the molecular weight of the substance (in grams) T is the temperature at which the conversion is to be made (degrees Kelvin) P is the pressure at which the conversion is to be made (kPa)

To convert from mg/m³ to ppm, the following formulae should be used: $\text{ppm} = \text{mg/m}^3 \times (22.4/\text{MW}) \times (\text{T}/273) \times (101.3/\text{P})$

Part III — Emission Reduction Measures of Dark Smoke from Chimneys

- (i) Avoid overloading burners with fuel oil.
- (ii) Use the correct fuel to air ratio by proper adjustment of the air and fuel supplies.
- (iii) Avoid flame impingement on any cold surface.
- (iv) Avoid carbon build-up in the boiler and furnace tubes and maintain the boiler and furnace settings in good condition.
- (v) Clean the burner at regular intervals and remove the carbon deposits from the nozzle with soft article after soaking, the nozzle in Kerosene.
- (vi) Use the correct atomizing nozzle and atomizing pressure.
- (vii) Check for worn or distorted parts of the burner and replace the damaged parts.
- (viii) Allow sufficient time in lighting up the burners from cold and adopt the correct start-up procedures as recommended by the burner manufacturers.
- (ix) Keep the mesh at the inlet of the air blower clear at all times.

Part IV — emissions report format —

The emissions report format shall include —

- (a) an estimate of the emissions for the relevant calendar year.
- (b) all the data applicable to the emissions sources, in respect of the licensed facility.
- (c) Estimates of annual emissions shall be made based on the following methods, in order of preference—
 - (i) continuous emission monitoring data;

- (ii) calculation of SO₂ emissions based on fuel use and sulphur content data including combustion processes in which exhaust gases do not come in contact with products;
- (iii) most recent and representative stack monitoring measurements conducted in the previous five years and activity data for the year for which emissions are estimated;
- (iv) emission factor or equivalent methods and activity data for the year;
- (v) emission factor or equivalent methods and plant capacity data;
- (vi) mass balance (including fuel use data) based on the two previous years or the most recent representative year;
- (vii) other approved methods supported by calculation and documentation, and the procedures set out by the Department

Part V — *Measures or operating procedures to control fugitive emissions*

The following measures or operating procedures may be used to control fugitive emissions —

- (a) from storage piles through use of enclosures, covers or stabilisation, minimising the slope of the upwind face of the pile, confining as much pile activity as possible to the downwind side of the pile and such other methods or techniques as are approved by the Department.
- (b) by enclosing, covering, watering, or otherwise treating loaded haul trucks and railroad cars, or limiting size of loads, to minimise loss of material to wind and spillage.
- (c) by minimising the area of disturbed land or tailings.
- (d) by planting special wind break vegetation at critical points.
- (e) by prompt removal of coal, rock minerals, soil, and other dust-forming debris from paved roads and scraping and compaction of unpaved roads to stabilise the road surface as often as necessary to minimise re-entrainment of fugitive particulate matter from the road surface.
- (f) by minimising the period of time between initially disturbing the soil and re-vegetating or other surface stabilization.
- (g) by restricting the areas to be blasted at any one time.
- (h) by restricting the speed of vehicles in or around mining, tailing or quarrying operations.
- (i) by re-vegetating, mulching, or otherwise stabilising the surface of all areas adjoining roads that are a source of fugitive particulate emissions.
- (j) by substituting covered conveyor systems for haul trucks.
- (k) by using synthetic or re-vegetative covers.
- (l) by restricting vehicular travel to established paved roads.
- (m) by watering or chemical stabilisation of unpaved roads as often as necessary to

minimise re- entrainment of fugitive particulate matter from the road surface, or paving of roads.

Part VI — Opacity Measurement Guidelines

The darkness of smoke is determined by comparing the shade of smoke to the shades on a Ringelmann Chart which consists of four squares with grids, which denoted shade 1 to shade 4. The darkness covered in each of these four squares represents twenty percent, forty percent, sixty percent and eighty percent opacity respectively. Ringelmann shade 0 is completely white and shade 5 is totally black. Therefore, Ringelmann shade 1 corresponds to smoke of twenty percent opacity.

The regulations stipulate that dark smoke emission from any chimney or relevant plant must not exceed —

- (i) 8 minutes in any period of four hours; or
- (ii) 3 minutes continuously at any one time.

Part VII — Guideline on sources of fugitive emission air pollutants

The following are the sources of fugitive emissions:

- (a) construction activities;
- (b) storage and handling, including loading and unloading, of materials such as bauxite, alumina, gypsum, or Portland cement or the raw materials therefore;
- (c) mining and quarrying activities;
- (d) haul roads;
- (e) haul trucks;
- (f) tailings piles and ponds;
- (g) demolition activities;
- (h) blasting activities; and
- (i) Sandblasting operations.
- (n) wind breaks; and
- (o) the paving of roads.
- (p) conveyor belts

Part VIII — Occupational Air Quality Guidelines

The owner or operator shall control the exposure to employees by—

- (a) limiting the amount of harmful substances used which may pollute the indoor environment;
- (b) limiting the number of employees who will be exposed or may be exposed;
- (c) limiting the period during which an employee will be exposed or may be exposed;
- (d) introducing engineering control measures for the control of exposure, which may include the following:

- (i) Process separation, automation or enclosure.
 - (ii) Installation of local extraction ventilation systems to process and equipment.
 - (iii) tools for the control of emission of an air borne hazardous substances.
 - (iv) Use of wet methods.
 - (v) Substituting hazardous substances with less hazardous ones.
- (e) Providing suitable respiratory protective breathing equipment.
- (f) Where respiratory protective equipment is provided, the employer shall ensure —
- (i) that the relevant equipment is capable of controlling the exposure to below the Occupational Exposure Level for the relevant harmful substance;
 - (ii) that the relevant equipment is correctly selected and properly used;
 - (iii) that information, instructions, training and supervision which is necessary with regard to the use of the equipment is known to the employees; and
 - (iv) that the equipment is kept in good condition and efficient working order

Part IX — *Guideline on NO_xs*

- (a) Existing fuel burning equipment shall be presumed to meet the definition of Best Available Technology if the owner or operator proves to the satisfaction of the Department that the emission levels in the Third Schedule can be met.
- (b) If the owner or operator does not prove as described in paragraph (a) of this section, Best Available Technology shall be installed by the owner with the goal of achieving the presumptive emission limits as set forth in the Third Schedule.
- (c) If actual achievable emission levels following installation of such combustion modification technology are greater than the presumptive emission limits in the Third Schedule these actual emission levels will become Best Available Technology for those sources.
- (d) If the owner or operator does not comply with paragraphs a or b of this section, alternative NO control technology and emission X limitation proposals shall be required and approved by the Department.
- (e) Compliance with the emission levels as determined above is based upon twenty- four hour rolling averaging period, Continuous Emission Monitoring Systems approved by the Department will be used.

Part X — *contents of a compliance plan*

A compliance plan shall include but not limited to —

- (a) a description of the current compliance status of the facility with respect to all applicable requirements, including all sources that exceed emission standards or targets or are predicted to exceed ambient air quality monitoring locations

- at which ambient air quality standards or guideline concentrations are exceeded, and any other administrative or other requirements that have not been satisfied;
- (b) a statement of the methods used to determine the facility's compliance status, including a description of all monitoring, record keeping, reporting and test methods, and any other information necessary to verify compliance with or to enforce applicable requirements;
 - (c) a statement that the facility will continue to comply with each applicable requirement in respect of which compliance is currently achieved at the facility; and
 - (d) in respect of each applicable requirement for which compliance is not currently achieved at the facility —
 - (i) a detailed statement of how the facility will achieve compliance;
 - (ii) proposed compliance schedule setting forth the remedial measures to be taken, including a sequence of actions with milestones leading to compliance;
 - (iii) if the facility is subject to a control order, the proposed schedule of remedial measures shall incorporate the order and shall be at least as stringent as the order;
 - (iv) a schedule for submission of progress reports to the Department at least once in every six months or more frequently if so required by the licence; and
 - (v) a schedule for the submission of compliance reports to the Department, at least once in every six months or more frequently if so required by the licence, indicating what, if any, progress has been made in relation to the schedule and the milestones.

Part XI - *Guideline for Assessment of Air Quality*

- (a) Such assessments, firstly, shall establish actual levels of the given pollutants based on representative measurements, surveys or assessments.
- (b) For areas where actual levels of a given pollutant are above the standard values stipulated for that pollutant, the preliminary assessment shall include the following—
 - (i) establish source contributions to ambient air concentrations of the pollutant of concern;
 - (ii) characterize future trends in ambient air concentrations of the pollutant of concern given a “business as usual” scenario;
 - (iii) identify emission reduction measures suited to reduce contributions from major sources and associated time frames for implementation;
 - (iv) assess the environmental benefit of measures to reduce and maintain air quality within limit values;
 - (v) determine the technical feasibility of measures to reduce and maintain air quality within limit values;
 - (vi) evaluate the economic viability of measures to reduce and maintain air quality within limit values;

- (vii) assess the social acceptability and policy applicability measures to reduce and maintain air quality within standard values;
- (viii) prioritize emission reduction measures on the basis of their environmental benefits, technical feasibility, economic viability, and social acceptability;
- (ix) determine the time required to reduce air pollutant concentrations to fall within the standard values taking into account the implementation of prioritized emission reduction measures.

Part XII — *Guideline on Results of Emissions Sampling and Analysis*

Results of emissions sampling and analysis shall be as follows—

- (a) Results of emissions sampling and analysis shall be expressed in metric units consistent with the emission standards or targets set out in this Regulations or in the conditions, if any, imposed in the relevant licence.
- (b) Measurements of emissions into the atmosphere from stacks, vents or other air pollutant sources, which are reported to the Department whether voluntarily or as a requirement of this Regulations or of any condition of a licence, shall be reported to the Department in the form of a test report that includes the following information —
 - (i) the testing methods and results, certified as being true, accurate, and in compliance with this Regulations by the person responsible for conducting the emissions test;
 - (ii) the name and location of the facility, the name and location of the source tested, the purpose of the tests, the test participants and their titles, and the date of the performance test;
 - (iii) a summary of the results, setting out emission rates for each pollutant and a comparison with applicable emission standards or targets and with any emission limits in the licence;
 - (iv) a description of the facility tested and the type of process and control equipment utilised;
 - (v) a description of the process sampled and associated emission control devices referenced to process, and locations at which sampling took place consistent with information provided in the relevant licence application or licence, as the case may be;
 - (vi) a schematic of each location sampled including duct diameter, direction of flow, dimensions to nearest upstream and downstream disturbances, including the number of duct diameters, location and configuration of the sampling ports, nipple length and port diameters, and the number and configuration of traverse points;
 - (vii) confirmation that sampling locations meet the criteria in the test methods set out in the Tenth Schedule, or the reasons why those locations do not meet such criteria and a discussion of the effect on results;
 - (viii) a discussion of special traversing or measurement schemes (if any);
 - (ix) a process flow diagram, maximum design capacities, a fuel analysis and heat value for heat input rate determinations, process and control equipment

- operating conditions, stack height, exit diameter, volumetric flow rate, exit temperature, exit velocity and a discussion of variations from normal plant operations;
- (x) a description of the sampling methods used;
 - (xi) a brief discussion of the analytical procedures, with justifications for any variance from prescribed method procedures;
 - (xii) the number of sampling points, time per point and the total sampling time per run;
 - (xiii) a cross-sectional diagram showing sampling points and a diagram of the sampling train;
 - (xiv) a diagram showing stack dimensions, sampling location and the distance from the nearest flow disturbance upstream and downstream, respectively, of the sampling points;
 - (xv) results and calculations in units consistent with the applicable emission limits with one complete calculation using actual data for each type of test performed;
 - (xvi) the tabulated data and results of the process weight rate or heat input rate in metric units, the referenced or derived conversion factors, the stack gas flow rate, the measured emissions given in units consistent with the applicable emission limits, the visible emissions observations or six consecutive minute average continuous opacity monitor readings, and the average value of emissions from any continuous gaseous emissions monitoring system in units consistent with applicable emission limits;
 - (xvii) quality assurance procedures;
 - (xviii) appendices with raw data and details of calculations, including –
 - (a) raw production data signed by the source official;
 - (b) photocopies of all raw data;
 - (c) a chain of custody report; and
 - (d) copies of all calibration data;
 - (xix) for particulate matter tests, copies of visible emissions evaluations or opacity monitor readings, and, for gaseous pollutant tests, copies of any continuous gaseous emissions monitoring system readings during the tests.

Part XIII: Minimum Stack Height Requirements

$H_g = H + 1.5L$; where —

H_g = Good Engineering Practice stack height measured from the ground level elevation at the base of the stack

H = Height of nearby structure(s) above the base of the stack L = Lesser dimension, height(h) or width(w), of nearby structures

‘Nearby Structures’ = Structures within/touching a radius of 5L but less than 800m

PART XIV – guidelines on air dispersion modelling assessment

- (a) as part of the baseline ambient air quality assessment report to be submitted once at the first renewal.
- (b) In order to determine the impacts of emissions from stationary sources at a certain location one will carry out an air dispersion assessment on the facility.

- (c) In determination of the fall out point of an existing facility the input data into the dispersion model shall its actual operating parameters.
- (d) Determination of the fall out point of a proposed facility, the input data into the dispersion model shall be its designed parameters.
- (e) The dispersion modeling report to be submitted to the Department shall be in the dispersion modelling report format prescribed under Part..... of the Fifth Schedule.
- (f) Dispersion modeling assessment referred to above shall be carried out using the dispersion models prescribed under part..... of the methods of test and analysis.

SIXTH SCHEDULE

(r. 10)

ACCEPTABLE STATIONARY EMISSION CONTROL TECHNOLOGIES
AND STRATEGIES

List of Acceptable Emission Control Technologies

	Air Pollutants	Emission Control technologies and strategies	
1.	Particulate Matter	Mechanical collectors (<u>dust cyclones</u> , <u>multicyclones</u>)	
		<u>Electrostatic precipitators</u>	
		<u>Filter bags (baghouses)</u>	
		<u>Particulate scrubbers</u>	
2.	Nitrogen Oxides (Nox) *	<u>Low NOx burners</u>	
		<u>Selective catalytic reduction (SCR)</u>	
		<u>Selective non-catalytic reduction (SNCR)</u>	
		<u>NOx scrubbers</u>	
		<u>Exhaust gas recirculation</u>	
		<u>Catalytic converter</u>	
3.	Volatile Organic Compounds (VOC), hydrocarbons	<u>Adsorption systems, such as activated carbon</u>	
		<u>Flares</u>	
		<u>Thermal oxidizers</u>	
		<u>Catalytic oxidizers</u>	
		<u>Biofilters</u>	
		<u>Absorption (scrubbing)</u>	
		<u>Cryogenic condensers</u>	
4.	Sulphur Oxides (SOx)	<u>Wet scrubbers</u>	
		<u>Dry scrubbers</u>	
		<u>Flue gas desulphurization</u>	
5.	Carbon Oxides	<u>Thermal oxidizers</u>	
6.	Hydrogen Sulphides	<u>Absorption (scrubbing)</u>	
7.	Hydrogen Chloride	<u>Dry Scrubbers, Adsorption systems, such as activated carbon</u>	
8.	Dioxins and Furans	<u>Cyclone</u>	
		<u>Electrostatic precipitator</u>	
		<u>Filter bag</u>	
		<u>Wet scrubber</u>	
		<u>Quenching and subsequent wet scrubber</u>	
		<u>Catalytic oxidation (selective catalytic reaction)</u>	
		<u>Catalytic Filter bag</u>	
		<u>Dry absorption in resins (carbon</u>	
	Air Pollutants	Emission Control technologies and strategies	Remarks
		particles dispersed in a polymer matrix)	
		Entrained flow reactor with added activated carbon or coke/lime or limestone solutions and subsequent Filter bag Filter bag	

		Fixed bed or circulating fluidized bed reactor, adsorption with activated carbon or open hearth coke	
9.	Metals (Hg, Pb,)	<u>Sorbent Injection Technology</u>	
		<u>Electro-Catalytic Oxidation (ECO)</u>	
		<u>K-Fuel</u>	
10.	Particulate matter, Sulphur oxides, nitrogen oxides	Cleaner fuels, Sustainable aviation fuels, raw materials substitution, processed change or modification	
11.	Any other technology approved by the Department from time to time		

* Notes

Best Available Technology (BAT) for this category of equipment will consist of combustion modification technology including either:

- (a) low NO burner technology with low excess air
- (b) Air if technically feasible; or
- (c) flue gas re-circulation with low excess air.

Emission monitoring report form

SEVENTH SCHEDULE (r. 33)

1. Name of Industry

2. Name of contact person

3. Position of contact person

4. Business registration No.

5. Address.....
 Telephone No.Fax

Email:

6. Source of pollutants

.....

.....

7. Emission concentrations and Quantities (mg/l, kg/day)

.....

.....

8. Emission Control Technology

.....

.....

.....

9. Status of Compliance to Emission Limits

.....

.....

.....

Signature..... dated..... day 20.....

Position

10. Official use only

Recommendations

.....

.....

Dated this..... day of 20.....

Signature.....

(Seal)

EIGHTH SCHEDULE

(r. 40,41,42,50)

Form 1

Application Form for Emission License

- 1. Name of Company
- 2. Address Fax..... E-mail:
- Name of Contact Person
- 3. Location.....
- LR No..... Street..... Ward..... Sub-County.....
- County.....
- 4. Activity
- 5. Duration:.....From..... day/.....
- /month...../year
- 6. Stack Emissions
 - (a) Normal operational conditions
 - (i)
 - (ii)
 - (iii)
 - (iv)
 - (b) Start-up, maintenance and shut-down conditions
 - (i)
 - (ii)
 - (iii)
 - (iv)
- 7. Other relevant information on non-point sources or fugitive emissions any other operating requirements relating to atmospheric discharges
- 8. Ambient air quality reporting
 - (i) on-site point source emission measurement
- 9. Anticipated Date of compliance day.....month.....year.
- 10. Road map to compliance with standards under Sixth Schedule
 - (i)
 - (ii)
 - (iii)
 - (iv)
- Signature of ApplicantDate.....
- Position

FOR OFFICIAL USE

13. Review Period (To be filled out by the Department

From.....day/...../month... /year

Upto.....day/...../month /year

From.....day/...../month... /year

Upto.....day/...../month /year

Approved/Not approved.....

Dated this.....day.....of 20.....

Signature..... (Seal)

Form II (r. 18, 69)

Reporting on Emission Limit Exceedance

1. Name of Company
 2. Address
P.O Box..... Tel..... Fax..... E-mail.....
Name of Contact Person
 3. Location
LR No..... Street..... Ward..... Sub- County..... County
 4. Source(s) that Caused the Excess Emissions.
(a)
(b)
(c)
(d)
 5. First observation of the excess emissions.
(a) The time..... date..... of.....Year
 6. The cause and expected duration of the excess emissions.
(a) Cause.....
(b) Expected Duration of Exceedance (No.).....hours (No.)..... days
(No.).....months
 7. Estimated rate of emissions for sources subject to numerical emission limitations
.....(mg/m³) (*expressed in the units of the applicable emission limitation*) and the
operating data and calculations used in determining the magnitude of the excess emissions
 8. The proposed corrective actions and schedule to correct the conditions causing the
excess emissions.
(a).....
(b).....
 9. The test methods listed under the Tenth Schedule or any other approved by the
Department shall be used. The results of the tests shall be submitted to the Department
within 45 days after completing the test.
- Signature of Applicant
- Date..... Position

Form III (r.40)

THE NAIROBI CITY COUNTY AIR QUALITY ACT 2022

PROVISIONAL EMISSION LICENCE

Application Reference No. License No.

FOR OFFICIAL USE

This is to certify that the application for emission into the atmosphere received from (Name of Applicant) of(Address) to the Nairobi City County Government in accordance with Air Quality Regulations for(Facility) located at (Ward, Sub- county and County) has been evaluated and a license is hereby issued for emission, subject to the attached conditions.

Dated this day of..... 20.....

Signature:

(Official Stamp)

County Secretary
Nairobi City County Government

Conditions of Licence

1. This Licence is valid for a period of from the date hereof.
2. Frequency of Monitoring (Daily/Weekly/Monthly/Quarterly
3.
4.

Form IV (r. 41)

APPLICATION FOR INITIAL EMISSION LICENSE

1. Name of Company
2. Address: P.O. Box
- Tel..... Fax..... E-mail:
- Name of Contact Person
3. Location LR No..... Street..... Ward..... Sub-County..... County.....
4. Type of Industry
5. Name(s) of emitting Equipment
-
-
-
-
-
6. Site Plan Layout, (attach sketch)
 - (a) Distance of the equipment to the nearest building.....
 - (b) Height of the above referred building.....
 - (c) Nearest sensitive area or facility.....
 - (d) Immission (fall-out) point.....
7. Operating Emission levels
 - (i)
 - (ii)
 - (iii)
 - (iv)
8. Proposed Emission Control Mitigation Measures
 - (v)
 - (vi)
 - (vii).....
 - (viii).....
9. Additional information required
- (a) Start-up, and shut-down of the equipment Methods.....
-
- (b) Expected Frequency of Occurrence.....
- (c) Duration of occurrence r. 41

(d) Projected emitted Pollutants

- (i)
- (ii)
- (iii)
- (iv)

10. (a) Nature of emissions (gaseous, particulates)

- (i).....
- (ii).....
- (iii).....
- (iv).....

(b) Concentration of the emissions

- (i).....
- (ii).....
- (iii).....
- (iv).....

Signature of Applicant.....Date.....

Position

FOR OFFICIAL USE

Approved/Not approved

Dated this.....day.....of 20.....

Signature..... (Seal)

Form V
THE NAIROBI CITY COUNTY AIR QUALITY ACT, 2022
EMISSION LICENCE

Initial/Renewal Emission License

Application Reference No.

Licence No.

FOR OFFICIAL USE

This is to certify that the application for emission into the atmosphere received from
.....(*Name of Applicant*) of.....
(address) to the Nairobi City County Government in accordance with Air Quality
Regulations for(*Facility*) located at
..... (Ward, Sub- County
and County) has been evaluated and a license is hereby issued for emission, subject to the
attached conditions.

Dated this day of..... 20.....

Signature:

(Official Stamp)

County Secretary
The Nairobi City County Government

Conditions of License

1. This License is valid for a period offrom the date hereof.
2. Frequency of Monitoring (Daily/Weekly/Monthly/Quarterly)
3.
4.
5.

Form VI

APPLICATION FOR RENEWAL OF EMISSION LICENSE

- 1. Name of industry
- 2. Name of contact person
- 3. Position of contact person
- 4. Business registration No.
- 5. Previous License No.
- 6. Address
- Telephone No..... Fax
- Email:.....

7. Emission source(s)

.....

.....

.....

.....

8. Emission control measures (Environmental Management Plan)

Signature of ApplicantDate.....

Position

OFFICIAL USE

Approved/Not approved.....

Dated this.....day.....of 20.....

Signature.....

(Seal)

Form VII

(r. 45)

NOTIFICATION OF TRANSFER OF EMISSION LICENSE

1.0. Details of Current License

Name of current Emission License holder PIN No.

Address

Telephone No. Fax Email:

Application No. of current Emission License

Date of issue of the current Emission License

2. Details of the Transferee

2.1. Name of facility

2.2. PIN No.

2.3. Address

2.4. Telephone No. Fax

2.5. Email:

2.6. Name of contact person

3.0. Capacity of transferee to operate the facility (financial, technological, manpower) (Conditions)

.....
.....
.....

4.0. Reasons for transfer of license

.....
.....
.....

5.0 Declaration by transferor and transferee

It is hereby notified that of on this day of transferred emission license No. to of who will assume his responsibility for all liability under this project.

Transferor/Transferee

Name.....Name.....

Address.....Address.....

Signed.....Signed.....

Date.....Date.....

6.0 FOR OFFICIAL USE

Approved/Not Approved.....

Comments.....

.....

.....

Officer.....Signature.....Date.....

Form VIII

CERTIFICATE OF TRANSFER OF EMISSION LICENSE

This is to certify that the Emission License No. Issued
on.....(date) to(name of previous
holder) of.....(address) regarding(type
of facility) whose activities include.....located at.....(town, district) has
been transferred to.....(Name of new holder).....

.....
.....(nature of variation) with effect from (date of transfer) in accordance
with the provisions of the Act.

Dated this.....day of 20.....

Signature.....

(Seal)

Form IX

APPLICATION OF VARIATION OF EMISSION LICENSE

1. Previous Applications (If any)

.....
.....
.....

2. Details of Applicant

2.1. Name of Industry
2.2. Name of contact person
2.3. Position of contact person
2.4. Business registration No.
2.5. Address
2.6. Telephone No. Fax
2.7. Email:

3. Details of Current Emission License

3.1. Name of current holder
3.2. No. of current emission license
3.3. Date of issue of the current emission license
4.0. Proposed Variations
4.1. Current emission limits

.....
.....
4.2. Proposed variations
4.3. Reasons for variations
4.4. Describe the atmospheric effects
4.5. Describe the effects on ambient air quality
4.6. Describe the effects on the performance of the equipment
4.7. Describe the measures proposed to reduce emission impacts.....

5.0. Declaration by Applicant

I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand the emission licence may be suspended, varied or cancelled if any information given above is false, misleading, wrong or incomplete.

Name..... Position..... Signature.....

On behalf of (Company Name and Seal)

Date.....

OFFICIAL USE

Approved/Not approved

Dated this.....day.....of 20.....

Signature..... (Seal)

Form X

Certificate of Variation of Emission License

This is to certify that the Emission License No.issued on
.....(date) to(name of firm) of
.....(address) regarding(type of facility)
whose activities include located at.....(ward, sub-county and
county district) has been varied to

.....
.....

..... (nature of variation) with effect
from (date of variation) in accordance with the provisions of the Act.

Dated this.....dayof 20.....

Signature..... (Seal)

NINTH SCHEDULE (r. 36)
 RECORD OF POLLUTION EXPOSURE RESULTS

Form I: Record of Pollution Exposure Results

Record of Pollution Exposure Assessment			
1	Name of facility.....		
2	Contact Address.....		
	Contact person.....		
3	Location		
4	Date.....		
5	Time of the assessment.....		
6	Type of Work Place.....		
7	Measuring methods		
	(i).....		
	(ii).....		
	(iii).....		
	(iv).....		
8.	Type of measurements (e.g. gases, dust, fumes....)		
	(i).....		
	(ii).....		
	(iii).....		
9.	Tabulated results of the measurements and compliance limits		
	<i>Pollutant</i>	<i>Measured result</i>	<i>Exposure limit</i>
	(i)		
	(ii)		
	(iii)		
	(iv)		
9.	Number of persons exposed.....		
10.	Recommended remedial measures		
	(i).....		
	(ii).....		
	(iii).....		
11.	Name of the assessor Signature of the Assessor.....		
	Organization/Company/Firm.....		

TENTH SCHEDULE (r. 34)

METHODS OF TEST AND MEASUREMENT OF AIR POLLUTANTS

List of methods of test and measurement of air pollutants

	<i>Standard</i>
1	<u>KS ISO 10155</u> Stationary source emissions – Automated monitoring of mass concentrations of particles -- Performance characteristics, test methods and specifications
2	<u>KS ISO 10397</u> Stationary source emissions -- Determination of asbestos plant emissions -- Method by fibre count measurement
3	<u>KS ISO 10780</u> : Stationary source emissions -- Measurement of velocity and volume flow rate of gas streams in ducts
4	<u>KS ISO 10849</u> : Stationary source emissions -- Determination of the mass concentration of nitrogen oxides -- Performance characteristics of automated measuring systems
5	<u>KS ISO 11338-1</u> : Stationary source emissions -- Determination of gas and particle-phase polycyclic aromatic hydrocarbons -- Part 1: Sampling
6	<u>KS ISO 11338-2</u> : Stationary source emissions -- Determination of gas and particle-phase polycyclic aromatic hydrocarbons -- Part 2: Sample preparation, clean-up and determination
7	<u>KS ISO 11564</u> : Stationary source emissions -- Determination of the mass concentration of nitrogen oxides -- Naphthylethylenediamine photometric method
8	<u>KS ISO 11632</u> : Stationary source emissions -- Determination of mass concentration of sulfur dioxide -- Ion chromatography method
9	<u>KS ISO 12039</u> : Stationary source emissions -- Determination of carbon monoxide, carbon dioxide and oxygen -- Performance characteristics and calibration of automated measuring systems
10	<u>KS ISO 12141</u> : Stationary source emissions -- Determination of mass concentration of particulate matter (dust) at low concentrations -- Manual gravimetric method
11	<u>KS ISO 14164</u> : Stationary source emissions -- Determination of the volume flow rate of gas streams in ducts -- Automated method
12	<u>KS ISO 15713</u> : Stationary source emissions -- Sampling and determination of gaseous fluoride content
13	<u>KS ISO 7708</u> : Air quality -- Particle size fraction definitions for health-related sampling
14	<u>KS ISO 11041</u> : Workplace air -- Determination of particulate arsenic and arsenic compounds and arsenic trioxide vapour -- Method by hydride generation and atomic absorption spectrometry
15	<u>KS ISO 11174</u> : Workplace air -- Determination of particulate cadmium and cadmium compounds -- Flame and electrothermal atomic absorption spectrometric method Standard
16	<u>KS ISO 15202-1</u> : Workplace air -- Determination of metals and metalloids in airborne particulate matter by inductively coupled plasma atomic emission spectrometry -- Part 1: Sampling

	Standard
17	KS ISO 15202-2: Workplace air -- Determination of metals and metalloids in airborne particulate matter by inductively coupled plasma atomic emission spectrometry -- Part 2: Sample preparation
18	KS ISO 15202-3: Workplace air -- Determination of metals and metalloids in airborne particulate matter by inductively coupled plasma atomic emission spectrometry -- Part 3: Analysis
19	KS ISO 15767: Workplace atmospheres -- Controlling and characterizing errors in weighing collected aerosols
20	KS ISO 16107: Workplace atmospheres -- Protocol for evaluating the performance of diffusive samplers
21	KS ISO 16200-1: Workplace air quality -- Sampling and analysis of volatile organic compounds by solvent desorption/gas chromatography -- Part 1: Pumped sampling method
22	KS ISO 16200-2: Workplace air quality -- Sampling and analysis of volatile organic compounds by solvent desorption/gas chromatography -- Part 2: Diffusive sampling method
23	KS ISO 16702: Workplace air quality -- Determination of total isocyanate groups in air using 2-(1-methoxyphenyl) piperazine and liquid chromatography
24	KS ISO 16740: Workplace air -- Determination of hexavalent chromium in airborne particulate matter -- Method by ion chromatography and spectrophotometric measurement using diphenyl carbazide
25	KS ISO 17733: Workplace air -- Determination of mercury and inorganic mercury compounds -- Method by cold-vapour atomic absorption spectrometry or atomic fluorescence spectrometry
26	KS ISO 17734-1: Determination of organonitrogen compounds in air using liquid chromatography and mass spectrometry -- Part 1: Isocyanates using dibutylamine derivatives
27	KS ISO 17734-2: Determination of organonitrogen compounds in air using liquid chromatography and mass spectrometry -- Part 2: Amines and aminoisocyanates using dibutylamine and ethyl chloroformate derivatives
28	KS ISO 20552: Workplace air -- Determination of mercury vapour -- Method using gold-amalgam collection and analysis by atomic absorption spectrometry or atomic fluorescence spectrometry
-	KS ISO 4224: Ambient air -- Determination of carbon monoxide -- Non-dispersive infrared spectrometric method
30	KS ISO 6767: Ambient air -- Determination of the mass concentration of sulfur dioxide -- Tetrachloromercurate (TCM)/pararosaniline method
31	KS ISO 7996: Ambient air -- Determination of the mass concentration of nitrogen oxides -- Chemiluminescence method
32	KS ISO 8186: Ambient air -- Determination of the mass concentration of carbon monoxide -- Gas chromatographic method
33	KS ISO 10312: Ambient air -- Determination of asbestos fibres -- Direct transfer transmission electron microscopy method
34	KS ISO 10313: Ambient air -- Determination of the mass concentration of ozone -- Chemiluminescence method
35	KS ISO 10473: Ambient air -- Measurement of the mass of particulate matter on a filter medium -- Beta-ray absorption method

	Standard
36	KS ISO 10498: Ambient air -- Determination of sulfur dioxide -- Ultraviolet fluorescence method
37	KS ISO 12884: Ambient air -- Determination of total (gas and particle-phase) polycyclic aromatic hydrocarbons -- Collection on sorbent-backed filters with gas chromatographic/mass spectrometric analyses
38	KS ISO 13794: Ambient air -- Determination of asbestos fibres -- Indirect-transfer transmission electron microscopy method
39	KS ISO 13964: Air quality -- Determination of ozone in ambient air -- Ultraviolet photometric method.
40	KS ISO 14965: Air quality -- Determination of total non-methane organic compounds -- Cryogenic pre-concentration and direct flame ionization detection method
41	KS ISO 14966: Ambient air -- Determination of numerical concentration of inorganic fibrous particles -- Scanning electron microscopy method
42	KS ISO 16362: Ambient air -- Determination of particle-phase polycyclic aromatic hydrocarbons by high performance liquid chromatography
43	KS ISO 7168-1: Air quality -- Exchange of data -- Part 1: General data format
44	KS ISO 7168-2: Air quality -- Exchange of data -- Part 2: Condensed data format
45	KS ISO 9169: Air quality -- Definition and determination of performance characteristics of an automatic measuring system
46	KS ISO 11222: Air quality -- Determination of the uncertainty of the time average of air quality measurements
47	KS ISO 13752: Air quality -- Assessment of uncertainty of a measurement method under field conditions using a second method as reference
48	KS ISO 14956: Air quality -- Evaluation of the suitability of a measurement procedure by comparison with a required measurement uncertainty
49	KS ISO 20988: Air quality -- Guidelines for estimating measurement uncertainty
50	KS ISO 16622: Meteorology -- Sonic anemometers/thermometers -- Acceptance test methods for mean wind measurements
51	KS ISO 17713-1: Meteorology -- Wind measurements -- Part 1: Wind tunnel test methods for rotating anemometer performance
52	KS ISO 17714: Meteorology -- Air temperature measurements -- Test methods for comparing the performance of thermometer shields/screens and defining important characteristics
53	KS ISO 16000-1: Indoor air -- Part 1: General aspects of sampling strategy
54	KS ISO 16000-2: Indoor air -- Part 2: Sampling strategy for formaldehyde
55	KS ISO 16000-3: Indoor air -- Part 3: Determination of formaldehyde and other carbonyl compounds -- Active sampling method
56	KS ISO 16000-4: Indoor air -- Part 4: Determination of formaldehyde -- Diffusive sampling method
57	KS ISO 16000-5: Indoor air -- Part 5: Sampling strategy for volatile organic compounds (VOCs)

	Standard
58	KS ISO 16000-6: Indoor air -- Part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax TA sorbent, thermal desorption and gas chromatography using MS/FID
59	KS ISO 16000-8: Indoor air -- Part 8: Determination of local mean ages of air in buildings for characterizing ventilation conditions
60	KS ISO 16000-9: Indoor air -- Part 9: Determination of the emission of volatile organic compounds from building products and furnishing -- Emission test chamber method
61	KS ISO 16000-10: Indoor air -- Part 10: Determination of the emission of volatile organic compounds from building products and furnishing -- Emission test cell method
62	KS ISO 16000-11: Indoor air -- Part 11: Determination of the emission of volatile organic compounds from building products and furnishing -- Sampling, storage of samples and preparation of test specimens
63	KS ISO 16017-1: Indoor, ambient and workplace air -- Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography -- Part 1: Pumped sampling
64	KS ISO 16017-2: Indoor, ambient and workplace air -- Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography -- Part 2: Diffusive sampling
65	KS ISO 4219: Air quality - Determination of gaseous sulphur compounds in ambient air - Sampling equipment
66	KS ISO 4220: Ambient air - Determination of a gaseous acid air pollution index - Titrimetric method with indicator or potentiometric end-point detection.
67	KS ISO 4221: Air quality - Determination of a mass concentration of sulphur dioxide in ambient air - Thorin spectrophotometric method
68	KS ISO 4225: Air quality - General aspects - Vocabulary
69	KS ISO 4226: Air quality - General aspects - Units of measurement
	Standard
70	KS ISO 6768: Ambient air - Determination of the mass concentration of nitrogen dioxide - modified Griess - Saltzman method
71	KS ISO 7934: Stationary source emissions - Determination of the mass concentration of sulphur dioxide - Hydrogen peroxide / barium perchlorate -- Thorin method
72	KS ISO 8518: Workplace air - Determination of particulate lead and lead compounds - Flame or electrothermal atomic absorption spectrometric method
73	KS ISO 8672: Air quality - Determination of the number concentration of airborne inorganic fibres by phase contrast optical microscopy - Membrane filter method
74	KS ISO 8756: Air quality - Handling of temperature, pressure and humidity data

	Standard
75	KS ISO 8760: Workplace air - Determination of mass concentration of carbon monoxide - Method using detector tubes for short-term sampling with direct indication
76	KS ISO 8761: Workplace air - Determination of mass concentration of nitrogen dioxide - Method using detector tubes for short-term sampling with direct indication
77	KS ISO 8762: Workplace air - Determination of vinyl chloride - Charcoal tube / gas chromatographic method
78	KS ISO 9096: Stationary source emissions - Determination of the concentration and mass flow rate of particulate material in gas-carrying ducts – Manual gravimetric method
79	KS ISO 9359: Air quality - Stratified sampling method for assessment of ambient air quality
80	KS ISO 9486: Workplace air - Determination of vaporous chlorinated hydrocarbons - Charcoal tube / solvent desorption / gas chromatographic method
81	KS ISO 9487: Workplace air - Determination of vaporous aromatic hydrocarbons - Charcoal tube / solvent desorption / gas chromatographic method
82	KS ISO 9835: Ambient air - Determination of a black smoke index
83	KS ISO 9855: Ambient air - Determination of the particulate lead content of aerosols collected on filters - Atomic absorption spectrometric method
84	KS ISO 10396: Stationary source emissions - Sampling for the automated determination of gas concentrations
85	KS 2060: Motor gasolines - Specification
86	KS 1515: Code of practice for inspection of road vehicles
87	KS 03-1289: Specification for illuminating kerosene
88	KS 1309-1: Specification for diesel fuels - Part 1: Automotive gas oil.
89	KS 03-1309-2: Specification for diesel fuels - Part 2: Industrial diesel oil (IDO).
90	KS 03-1310: Specification for fuel oils
91	KS 03-91: Specification for liquefied petroleum gases (LPG).

Mobile Sources

ELEVENTH SCHEDULE

(r. 16)

ACCEPTABLE MOBILE EMISSION CONTROL TECHNOLOGIES

The aim of these guidelines is without sacrificing performance, improve engine performance through understanding pollutant formation mechanism, ensure precise control of engine parameters, such as air/fuel ratio, spark timing, airflow, optimize on exhaust gas treatment.

List of mobile emission control technologies

<i>Pollutant</i>	<i>Control measures</i>
NOX Exhaust	Exhaust Gas Recirculation (EGR) Valves
HC, CO Exhaust	Three Way Catalyst (TWC), 2 nd Air Pumps
Evaporative Emissions	Canisters
Crankcase e/m s	Positive Crankcase Valve PCV valves
On Board Display (Obd-2)	Precise a/f control
	Dual Oxygen Sensors
	Individual cylinder a/f control
	Adaptive fuel control
	Electronic throttle control
	Improved induction
	Heat optimized exhaust system
	Leak-free exhaust system
Particulate matter	Diesel Oxidation Catalyst (DOC)
	Diesel particulate filter (DPF)
	Flow Through Filter (FTF)
	Retrofit, Repower, or Replace

And any other technology that may be approved by the Department from time to time
List of evaporative emission control technologies

	<i>Cause</i>	<i>Measure</i>
1	Diffusion	Precise purge control and optimization of canister structure
2	Leakage	Modification of designs for locking parts and fuel filler cap
3	Permeation	Material changes for hoses in fuel line
4	Evaporation while fueling	Improve sealing by putting elastic cap around the nozzle of fueling gun
		Create negative pressure while fuelling by using the venturi effect
5	Fuel Temperature	Reduce the fuel amount returning to fuel tank Limit the fuel tank temperature

FEES

TWELFTH SCHEDULE

(r. 52,56)

The fees chargeable under this Regulations shall be as specified hereafter.

- (a) Application for:
- (i) Emission License for listed emitting facility - *KShs.5,000/=*
 - (ii) Emission License for other emitting facility than (i) above - *KShs.5,000/=*
 - (iii) Variation of Emission License: *KShs.3,000/=*
 - (iv) Transfer of Emission License - *KShs.3,000/=*
- (b) Annual License fee for Emission into the atmosphere
- (i) Facility listed in 13th schedule under category I - *KShs.50,000/=*
 - (ii) Facility listed in 13th schedule under category II - *KShs.30,000/=*
 - (iii) Polluting facility not in 13th Schedule other than (i) and (ii) above-
KShs.20,000/=
- (c) Variation of emission Licence is 10% of the Annual Licence fee
- (d) Application fees for mobile source testing centres; - 50,000/-
- (e) Annual operational license for mobile source testing centres – 100,000/-
- (f) Mobile Source Operator or owner Emission testing fee to be charged by the Designated Testing Centres for each mobile source as follows

	Mobile source	KSh.
i.	Motorcycles and tricycles	1,000/-
ii.	Motor vehicles less than 3.5 tonne in tare weight	5,000/-
iii.	Motor Vehicles exceeding 3.5 tonne but less than 7 tonne in tare weight	10,000/-
iv.	Motor vehicles exceeding 7 tonne in tare weight	20,000/-
v.	Locomotives	30,000/-
vi.	Motorized boats	10,000/-
vii.	Aircrafts	50,000/-

Pollution tax

- (a) A deviation of 10% from the emission limits shall attract an additional 100% of total cost of the emission testing fee.
- (b) Any incremental deviation for every 10% or part thereof shall attract an additional kshs. 20,00

THIRTEENTH SCHEDULE (r. 23)
LIST OF CONTROLLED FACILITIES

Part I

- a) Fertilizer manufacturing plants
 - (b) Lead recycling plants
 - (c) Grain millers
 - (d) Hot mix asphalt batching plants
 - (e) Incinerators
 - (f) Iron and steel mills;
 - (f) Kraft pulp mills;
 - (g) Manufacture of soda ash
 - (h) Mineral processing and production plants;
 - (i) Paint manufacturing plants
 - (j) Pesticide formulation and manufacturing plants
 - (k) Petroleum refineries and depots;
 - (l) Pharmaceutical industries
 - (m) Phosphate rock processing plants;
 - (n) Portland cement plants (clinker plants included);
 - (o) Sulphur recovery plants;
 - (p) Sulphuric, or nitric acid plants;
 - (q) Thermal power plants
 - (s) Any other chemical processing industry
 - (t) (Pyrolysis
 - (u) Hydrocarbon recycling plant
 - (v) Copper smelting (primary and secondary)
 - (w) Upstream petroleum facilities
 - (x) Edible oil processing plants
 - (y) Tanneries
 - (z) Sugar processing plants Quarry operations
- Any other facility that the Department may prescribePart II
- (i) Iron recycling plants;
 - (ii) Secondary aluminium production plants;
 - (iii) Plastic recycling plants;
 - (iv) Textile industries

- (v) Tea processing plants
- (vi) Midstream petroleum facilities
- (vii) Crematoria
- (viii) Any other facility that the Department may prescribe
- (ix) Part III
- (x) Stockpiling or storage of materials
- (xi) Major construction sites
- (xii) Outdoor spraying/painting

Any other facility that the Department may prescribe

Mobile Sources PART I -

Vehicles Cars, Trucks, Motorcycles Tricycles

PART II

locomotives

PART III

Aircraft

Dated the 11th November, 2025.

MAUREEN NJERI,
*County Executive Committee Member for Environment,
Water, Food and Agriculture.*

