

STATUTORY INSTRUMENTS SUPPLEMENT

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S T A T U T O R Y I N S T R U M E N T S

2024 No. 22.

**THE NATIONAL ENVIRONMENT (AIR QUALITY STANDARDS)
REGULATIONS, 2024**

ARRANGEMENT OF REGULATIONS

PART I—PRELIMINARY

Regulation

1. Title
2. Application of Regulations
3. Interpretation

PART II—GENERAL PROHIBITIONS

4. General prohibitions

PART III—REGULATION OF EMISSIONS FROM DIFFERENT SOURCES

Ambient Air Quality Standards

5. Ambient air quality

Stationary Emission Sources

6. Control of emissions from stationary sources
7. Fugitive emission reduction measures
8. Fugitive emission control plan
9. Mobile emission sources
10. Inspection of mobile emission sources

Stationary Emission Sources

11. Visible emissions

Emission Control Technologies

12. Clean technologies
13. Quality of fuels

Emissions from Open Burning, Odour and Transboundary Sources

14. Open burning of combustible material
15. Odourous emissions
16. Transboundary air pollution

PART IV—OCCUPATIONAL AIR QUALITY EMISSION LIMITS

17. Occupational air quality emission limits
18. Protection of work environment
19. Protection of workers from exposure

PART V—INDOOR AIR QUALITY

20. Indoor air quality emission limits
21. Protection of occupants

PART VI—AIR QUALITY MONITORING AND MANAGEMENT BY THE AUTHORITY AND LEAD AGENCIES

22. Air quality monitoring programme by Authority or lead agency
23. Air quality management plans
24. Content of air quality management plan
25. Reporting on implementation of air quality management plan
26. Assessment of air quality
27. Classification of zones and air quality assessments
28. Threshold assessments for control areas
29. Short-term action plans
30. Air quality awareness and information

PART VII—AIR QUALITY COMPLIANCE MONITORING AND
MANAGEMENT BY OPERATORS

31. Air quality compliance monitoring programme
32. Facility air quality management plan
33. Air quality assessment by the operator
34. Compliance with emission thresholds
35. Facility short-term air quality action plan
36. Emission testing and analysis
37. Annual emissions compliance report
38. Incident report
39. Greenhouse and ozone depleting gases
40. Duty to keep records

PART VIII—AIR POLLUTION CONTROL LICENCE

41. Liability of polluter
42. Application for air pollution control licence
43. Preliminary review by Authority
44. Consultations
45. Consideration of application
46. Decision on application
47. Conditions in licence
48. Duration of licence
49. Variation, suspension or revocation of licence
50. Renewal of licence
51. Transfer of facility ownership

PART IX—ADMINISTRATIVE AND OTHER MEASURES

52. Database of licences
53. Inspection and monitoring
54. Improvement notice
55. Administrative measures

PART X—OFFENCES AND PENALTIES

56. Negligent acts

SCHEDULES

SCHEDULE 1 —CURRENCY POINT

SCHEDULE 2 —AMBIENT AIR QUALITY STANDARDS AND TOLERANCE LIMITS

TABLE 1 —CRITERIA FOR AMBIENT AIR QUALITY STANDARDS AND TOLERANCE LIMITS

TABLE 2 —HAZARDOUS AMBIENT AIR POLLUTANTS

SCHEDULE 3 — MAXIMUM PERMISSIBLE EMISSION LIMITS FOR STACKS, CHIMNEYS, VENTS AND OTHER STATIONARY EMISSION SOURCES

SCHEDULE 4 — MAXIMUM PERMISSIBLE EMISSION LIMITS FOR VEHICULAR SOURCES

SCHEDULE 5 — OCCUPATIONAL EXPOSURE EMISSION LIMITS

SCHEDULE 6 — INDOOR AIR QUALITY STANDARDS

SCHEDULE 7 — SHORT TERM AIR QUALITY ACTION PLAN

SCHEDULE 8 — ANNUAL EMISSIONS COMPLIANCE REPORT

SCHEDULE 9 — FORMS

FORM 1 — APPLICATIONS FOR AIR POLLUTION CONTROL LICENCE

FORM 2 — AIR POLLUTION CONTROL LICENCE

SCHEDULE 10 — FEES

STATUTORY INSTRUMENTS

2024 No. 22.

The National Environment (Air Quality Standards) Regulations, 2024

*(Under sections 103, 104 and 179(2)(k) of the National Environment Act,
2019, Act 5 of 2019)*

IN EXERCISE of the powers conferred upon the Minister by section 179 of the National Environment Act, 2019, and in consultation with the National Environment Management Authority, these Regulations are made this 9th day of November 2023.

PART I—PRELIMINARY

1. Title

These Regulations may be cited as the National Environment (Air Quality Standards) Regulations, 2024.

2. Application of Regulations

(1) These Regulations apply to air pollution resulting from—

- (a) processes, operations and activities; and
- (b) all internal combustion engines.

(2) These Regulations shall apply in addition to other requirements under the Act or any other written law and environmental standards.

(3) Where there are no maximum emission standards set out under these Regulations, the Authority may, subject to subregulation (2), require the operator to apply internationally recognised emission standards.

3. Interpretation

In these Regulations, unless the context otherwise requires—

“Act” means the National Environment Act, 2019;

“air pollutants” means airborne substances; either solids, liquids or gases that occur in concentrations that threaten or harm human health and the environment;

“air pollution” means a change in the air quality resulting from human activity, through direct or indirect input of pollutants that may be harmful to human health and the environment, or cause damage to property or disturb or affect amenities of life and any other legitimate manner of environment use;

“air quality” means the state of air, including the concentration of pollutants in the atmosphere at the point of measurement;

“ambient air” means the outdoor air to which human beings, plants, animals or material are exposed, typically measured near ground level, away from direct sources of pollution but does not include the atmosphere within a structure or within any underground space;

“Authority” means the National Environment Management Authority established by section 8 of the Act;

“currency point” has the value assigned to it in Schedule 1 to these Regulations;

“emergency situation” means an environmental emergency resulting from sudden on-set disasters or incidents arising from natural, technological or human induced factors or a combination of these factors that cause or are likely to cause significant environmental damage or loss of human life and property;

“emission” means releases of gas or other pollutant into the atmosphere from any source;

- “emission limit” means the highest permissible concentration of pollutants that can be released into the air within a specified period, based on science;
- “environmental standards” means standards produced or adopted by the Authority in consultation with the Uganda National Bureau of Standards for use in Uganda;
- “facility” means any plant, structure, group of structures, equipment, device, infrastructure or other associated installation;
- “fugitive emissions” mean emissions which cannot or are not reasonably likely to be collected or passed through a stack, chimney, vent, or other functionally equivalent opening;
- “indoor air quality” means the quality of air within and around a building or structure or underground space that can affect the health and comfort of persons;
- “Minister” means the Minister responsible for the environment;
- “mobile emission source” means a single identifiable moving source of air pollution, including vessels, engines and equipment that can be moved from one location to another;
- “non-point source” means a source of air pollution which cannot be identified as having emanated from a single identifiable source or fixed location;
- “occupational exposure” means exposure to pollutants in the work environment;
- “operator” means a person executing an activity regulated under the Act, or any other entity executing on behalf of one or several persons, the day to day management of the activity, and includes the owner of the facility;

“point source” means a single identifiable source and fixed location of a source of air pollution and includes stacks, chimneys and vents;

“pollutant” means any substance which may cause air pollution, when emitted into the atmosphere, either by itself or in combination with any other substance;

“shut-down of equipment” means the cessation of operation of a facility or a unit of a facility from an operative condition after normal production rates have been achieved or for any other purpose;

“start-up of equipment” means the setting into operation of a facility or a unit of a facility from an inoperative condition so that normal production rates are achieved or for any other purpose;

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

“vessel” includes a ship, motor boat and other waterborne craft, motor vehicle, motor cycle, aircraft, train or other locomotive used for mobility.

PART II— GENERAL PROHIBITIONS

4. **General prohibitions**

(1) A person shall not—

(a) from any source or activity, emit or cause to be emitted objectionable matter or obnoxious smells including smoke, gases, vapours, fumes, grit, dust or other matter capable of being dispersed or suspended in the atmosphere contrary to these Regulations;

- (b) release or cause to be released any hazardous substance into the air contrary to these Regulations; or
- (c) act in a way that directly or indirectly causes, or is likely to cause immediate or subsequent air pollution in levels that exceed the permissible emission limits.

(2) A person shall not cause emissions into the air beyond permissible limits or by the use of a substance or product banned or restricted under the Act, Regulations made under the Act, any other written law or environmental standards.

PART III—REGULATION OF EMISSIONS FROM DIFFERENT SOURCES

Ambient Air Quality Standards

5. Ambient air quality

(1) A person who undertakes an activity or manages a process that is likely to pollute the air shall comply with the ambient air quality standards prescribed in Schedule 2 to these Regulations.

(2) Subregulation (1) shall apply to an operator referred to under regulation 6 and a person who causes the escape of air pollutants, or stockpiles or stores substances or materials in a manner that is likely to cause the quality of ambient air to deteriorate.

(3) A local authority may, in consultation with the Authority or relevant lead agency, make byelaws or ordinances to implement the standards under subregulation (1) depending on the local circumstances, and subject to written law.

Stationary Emission Sources

6. Control of emissions from stationary sources

(1) An operator shall not, under normal operations, cause or allow the emission of air pollutants from stacks, chimneys, vents or other stationary sources in excess of the limits set out in Schedule 3 to

these Regulations, except during start-up of equipment and shut-down of equipment or in emergency situations.

(2) Subregulation (1) shall apply to sources of air pollution which do not operate on a continuous basis.

(3) For purposes of the exceptions in subregulation (1), an operator shall—

- (a) within twenty-four hours of the occurrence of an emergency situation, notify the Authority and the relevant lead agency; and
- (b) within two days of occurrence of an emergency situation, submit a report indicating the time and details of the incident, including the response taken.

(4) The operator of a stationary emission source shall conduct emission testing and facility monitoring to demonstrate and ensure compliance with the requirements of regulation 31.

(5) The Authority may prevent a facility from commencing operations where it has cause to believe that the facility may constitute a major source of air pollution.

7. Fugitive emission reduction measures

(1) The operator of a stationary facility shall, in accordance with a fugitive emission control plan referred to under regulation 8, take measures to control fugitive emissions.

(2) The operator referred to in subregulation (1) shall ensure that fugitive emissions do not cause the ambient air quality at the property boundary of the facility to exceed the limits prescribed under Schedule 2 to these Regulations.

(3) The Authority shall, in consultation with the relevant lead agency, consider fugitive emissions in determining whether a stationary source of hazardous air pollutants is a major source of pollution in a given area.

8. Fugitive emission control plan

(1) The operator of a stationary facility shall put in place a fugitive emission control plan based on an environmental risk assessment undertaken in accordance with the Act and the National Environment (Environmental and Social Assessment) Regulations, 2020.

(2) A fugitive emission control plan shall contain—

(a) a description of the facility and its processes;

(b) a list of potential sources of fugitive emissions;

(c) measures for control and mitigation of fugitive emissions;
and

(d) any other information as the Authority may deem necessary.

(3) Notwithstanding subregulation (1), the Authority may require an applicant to submit a written fugitive emission control plan as part of an application for a licence under these Regulations.

(4) Where a fugitive emission control plan is submitted to the Authority as part of an application for a licence under subregulation (3), the plan shall be reviewed together with other aspects of the application.

(5) The operator of a stationary facility shall make available a fugitive emission action plan to the Authority and the relevant lead agency, upon request.

Mobile Emission Sources

9. Mobile emission sources

(1) A person shall not import a new or used motor vehicle, other conveyance vessel or mobile emission source unless it meets the emission limits prescribed under Schedule 4 to these Regulations.

(2) The lead agency responsible for the regulation of motor vehicles, other conveyance vessels or mobile emission source shall, in collaboration with other relevant lead agencies and the Authority, ensure compliance with subregulation (1).

(3) A person who operates a new or used motor vehicle, other conveyance vessel or mobile emission source, shall ensure that the emission of air pollutants from the internal combustion engine during normal running conditions or idling, does not exceed the limits prescribed under Schedule 4 to these Regulations and the ambient air standards set out in Schedule 2 to these Regulations.

(4) The operator of a mobile emission source including a transport and conveyance vessel by road, rail, air or inland water existing before the coming into force of these Regulations shall ensure that the mobile emission source meets the minimum standards applicable to its date of manufacture, in accordance with accepted international standards for that year, make and model of the mobile emission source, until the mobile emission source is brought into compliance with Schedule 4 to these Regulations, as appropriate, or is removed from operation.

(5) Subregulations (1), (3) and (4) apply to internal combustion engines of portable emission sources which are commonly, and by usual practice, moved from one place to another.

(6) The operator of an emission source referred to under subregulation (3), (4) or (5) shall ensure that the emission source does not lead to a build-up of emissions in enclosed places.

(7) An operator referred to under this regulation shall ensure that the mobile emission source, including a portable emission source, is adequately maintained and inspected in accordance with these Regulations, the Traffic and Road Safety Act, 1998 and any other written law.

(8) An operator referred to under subregulation (1) shall comply with the provisions of the Traffic and Road Safety Act, 1998, any other written law and standards issued by the Uganda National Bureau of Standards.

10. Inspection of mobile emission sources

(1) The Authority may, in consultation with the lead agencies responsible for the inspection of a mobile emission source, at any time, cause the inspection of a mobile source that is emitting pollutants.

(2) The lead agencies responsible for mobile emission source inspection shall, in consultation with the Authority, ensure that—

(a) commercial vehicles, public service vehicles and private vehicles undergo emission tests in accordance with these Regulations, the Traffic and Road Safety Act, 1998 and the Traffic and Road Safety (Motor Vehicle Inspection) Regulations, 2016; and

(b) emissions from other conveyance vessels, portable equipment or other mobile emission source are tested in accordance with these Regulations and other written law.

(3) The emission tests referred to in subregulation (2) shall be undertaken by the relevant lead agency.

(4) The emission tests shall be undertaken in accordance with the Traffic and Road Safety Act, 1998, other written law and standards approved by the Uganda National Bureau of Standards.

(5) The operator of a motor vehicle, other conveyance vessel or other mobile emission source that does not pass the emission test shall undertake appropriate maintenance and other actions to bring the vessel into compliance with these Regulations.

Other Sources of Emissions

11. Visible emissions

(1) A person shall not generate, cause or allow the release or dispersion of visible emissions including dust, smoke, fly ash, mist, fumes, smog, vapour, cinders and other liquid droplets or solid particles of any kind contrary to the air quality standards set out in these Regulations.

- (2) Subregulation (1) applies to visible emissions—
- (a) from any stationary source listed under Schedule 3 to these Regulations;
 - (b) from any mobile source listed under Schedule 4 to these Regulations;
 - (c) from any substance or material being transported by motor vehicle or by other mode of conveyance; and
 - (d) during construction, demolition, mining, quarrying and other related activities.

Emission Control Technologies

12. Clean technologies

(1) The operator or other stationary emission source shall, in accordance with an air quality management plan developed under regulation 32(1), use best available emission reduction technologies and best environmental practices to meet the emission standards prescribed under these Regulations.

(2) The lead agencies responsible for motorised transport and other emission sources shall, in collaboration with other relevant lead agencies and the Authority, put in place mechanisms to promote the adoption of cleaner technologies in motorised transport and other emission sources by—

- (a) developing programmes to phase out old motor vehicles and other motorised vessels, including their removal from operation;

- (b) providing for engine specifications and calibration;
- (c) provision of incentives for acquisition of newer and environmentally friendly motor vehicles and other motorised vessels;
- (d) adoption of infrastructure that promotes mass transportation and non-motorised transport; and
- (e) provision of additional control measures as may be deemed necessary.

13. Quality of fuels

(1) The lead agency responsible for fuel standards shall, in collaboration with other relevant lead agencies and the Authority, establish limit values for the contents and types of harmful substances, as well as other requirements relating to the quality of fuels in accordance with the Petroleum Supply Act, 2003, Regulations made under that Act, and standards approved by the Uganda National Bureau of Standards.

(2) The fuel standards referred to in subregulation (1) shall be harmonised with the vehicular emission standards set out in Schedule 4 to these Regulations.

Emissions from Open Burning, Odour and Transboundary Sources

14. Open burning of combustible material

A person shall not carry out open burning of any combustible material that emits air pollutants that affect ambient air quality contrary to the standards set out in Schedule 2 to these Regulations.

15. Odourous emissions

(1) A person shall not cause or allow the emission of odour from any source contrary to the Act, these Regulations, the Public Health Act and other written law.

(2) A person whose activities cause the emission of odour, shall use best environmental practices and put in place measures to reduce the odour to a level acceptable to the receiving environment, in accordance with these Regulations.

(3) Where the activity referred to under subregulation (2) is part of an industrial process, the operator of the facility shall ensure that the constituents of the detectable odours are reduced by practical means, to bring the facility into compliance with the ambient air standards set out in Schedule 2 to these Regulations and maximum permissible emission limits for stacks, chimneys, vents and other source emissions set out in Schedule 3 to these Regulations.

(4) The measurements for odour shall be taken from the boundary of the property from which the emission originates, taking into account—

- (a) the odour descriptors;
- (b) the composition of the odour;
- (c) the concentration of the constituents of the odour; and
- (d) the acceptable limits, measured using appropriate equipment.

(5) The limits referred to under subregulation (4) shall—

- (a) for areas used predominantly for residential or commercial purposes, apply when odour is detected after the odorous air has been diluted with seven or more volumes of odour-free air;
- (b) in all other land use areas, apply when odour is detected after the odorous air has been diluted with fifteen or more volumes of odour-free air; and
- (c) for an industrial process that has demonstrated that the best practical treatment, maintenance and control measures have been undertaken to bring the emission source to the

lowest possible emission of odorous gases, apply when odour is detected after the odorous air has been diluted with one hundred twenty-seven or more volumes of odour-free air.

(6) For the purposes of subregulation (5), two odour measurements shall be made within a period of one hour, with these measurements being separated by an interval of at least fifteen minutes.

(7) When taking odour measurements, the following factors shall be considered—

- (a) the frequency of the odour event;
- (b) the intensity of the odour;
- (c) the duration of each odour event;
- (d) the offensiveness or intrusive character of the odour; and
- (e) the location of the odour, especially in regard to the sensitivity of the receiving environment.

(8) The Authority or an authorised officer shall, in accordance with a compliance order issued under the Act and these Regulations, require the operator of the facility to reduce the odour to an acceptable level within a specified timeframe.

16. Transboundary air pollution

(1) Subject to section 151 of the Act, the Minister may collaborate with the Authority and the relevant lead agency where air pollution is reported to occur from or impacts a neighbouring State.

(2) The collaboration referred to under subregulation (1) shall include—

- (a) notification about the cause, movement and impact of the pollution;

- (b) consultation on appropriate remedial action and measures to be undertaken by the person responsible for the emissions; and
- (c) any other aspect regarding control of transboundary emissions as may be deemed necessary.

PART IV—OCCUPATIONAL AIR QUALITY EMISSION LIMITS

17. Occupational air quality emission limits

(1) An operator shall ensure that occupational exposure to air pollutants does not exceed the exposure limits prescribed under the Occupational Safety and Health Act, 2006, these Regulations and other written law.

(2) Without limiting the general effect of subregulation (1), an operator shall observe the occupational exposure standards set out in Schedule 5 to these Regulations.

(3) Where the air pollutants referred to in this regulation are not covered under the relevant law, the operator shall apply the guidance provided by best industry practice and the manufacturer or supplier of the polluting substance.

18. Protection of work environment

An operator shall—

- (a) use best practicable means and technologies to ensure that the work environment is free of pollutants and complies with the limits set out in Schedule 5 to these Regulations;
- (b) provide adequate ventilation for the facility to allow air exchange;
- (c) put in place safety signage on air quality-related hazards at conspicuous locations at the facility; and

- (d) put in place any other measures as may be appropriate for the facility to prevent or minimise air pollution in the work environment.

19. Protection of workers from exposure

- (1) An operator shall—
 - (a) inform workers of the hazards in specific work environments;
 - (b) train workers on the potential hazards of any hazardous substance to which they are exposed and the safety precautions to be taken to prevent harm to their health;
 - (c) provide personal protective equipment to workers and ensure that the equipment is used;
 - (d) ensure that measurements of pollutants are carried out by a laboratory designated by the Authority or accredited internationally, in order to determine compliance with the allowed levels of exposure;
 - (e) ensure that records of measurements carried out under paragraph (d) are submitted to the Authority and the lead agency responsible for occupational safety and health on a quarterly basis;
 - (f) monitor the exposure of workers to specific pollutants and carry out periodic medical tests for workers; and
 - (g) take exposure reduction measures in accordance with the Occupational Safety and Health Act, 2006, these Regulations and other written law.
- (2) The information collected under subregulation (1) shall be made available to the Authority, relevant lead agency or authorised person, upon request.
- (3) An occupational hygienist designated as such under the Occupational Safety and Health Act, 2006 or authorised officer shall—

- (a) monitor the level of exposure of workers to air pollution; and
- (b) cause compliance with this Part in accordance with the Act, the Occupational Safety and Health Act, 2006, these Regulations and other written law.

PART V— INDOOR AIR QUALITY

20. Indoor air quality emission limits

(1) The owner, operator or occupier of premises shall ensure that indoor air quality conforms to the standards set out in Schedule 6 to these Regulations or other written law.

(2) The Authority and the relevant lead agency shall, as appropriate, guide owners, operators or occupiers of premises to improve the indoor air quality.

21. Protection of occupants

The owner, operator or occupier of premises shall—

- (a) ensure that ventilation and interior finishing of buildings is undertaken in a manner and with materials that enhance and protect indoor air quality;
- (b) maintain air conditioning equipment, when used in means of mass transport, places of entertainment, accommodation and other premises, in conformity with air conditioning standards;
- (c) assign dedicated personnel for indoor air quality monitoring and management in accordance with the air quality management plan referred to under regulations 23 and 32; and
- (d) when required by an occupational hygienist or authorised officer, ensure that indoor air quality is analysed by a

laboratory designated by the Authority or accredited internationally in order to determine compliance with the allowed levels of exposure.

PART VI—AIR QUALITY MONITORING AND MANAGEMENT
BY THE AUTHORITY AND LEAD AGENCIES

22. Air quality monitoring programme by Authority or lead agency

(1) The Authority shall, in consultation with the relevant lead agency, develop a national air quality monitoring programme in accordance with this regulation.

(2) The air quality monitoring programme developed under this regulation shall comprise—

- (a) a uniform and functioning system for the monitoring and control of air quality;
- (b) sampling methods;
- (c) the frequency of monitoring; and
- (d) a comprehensive database and reporting mechanism for the management and review of the state of air quality, which shall be periodically updated.

(3) The Authority shall coordinate the implementation of the national air quality monitoring programme developed under subregulation (1) through—

- (a) systematic monitoring, observation, analysis and evaluation of the impact of pollution on air quality;
- (b) identification of the sources and distribution of pollution;
- (c) evaluation of the impact of the polluted air on human health and the environment;

- (d) specification and proposal of measures for air quality improvement; and
- (e) modelling and forecasting.

(4) The measures referred to in subregulation (3) (d), may, in specific circumstances—

- (a) restrict or suspend certain activities that are evaluated as contributing significantly to air pollution;
- (b) propose incentives to encourage compliance in accordance with the Act and these Regulations; and
- (c) propose other economic and legal interventions as may be deemed necessary.

(5) The monitoring data generated under this regulation shall determine the severity of air pollution in the affected areas and provide a framework for the development of the air quality management plan under regulation 23.

(6) The relevant lead agency and any other ministry, department or agency of Government shall, as appropriate, develop and implement its respective air quality monitoring programme in line with the national air quality monitoring programme developed under this regulation.

(7) The air quality monitoring programme developed under this regulation shall be for a duration of five years and shall be updated for the subsequent monitoring cycle.

23. Air quality management plans

(1) The Authority shall, in consultation with the relevant lead agency, develop a national air quality management plan to ensure compliance with the relevant emission limits prescribed in these Regulations or a licence issued under these Regulations, within a specified timeframe.

(2) The relevant lead agencies, including cities, municipalities and large urban authorities shall, in collaboration with the Authority, develop and implement air quality management plans within their areas of jurisdiction.

(3) Where the air quality management plan is developed by a local government other than a local government referred to under subregulation (2), the plan may include air quality interventions by lower local governments.

(4) An air quality management plan developed under this regulation shall form part of the air quality monitoring programme referred to in regulation 22.

(5) An air quality management plan developed under this regulation shall be reviewed and assessed for effectiveness at least every two years.

(6) An air quality management plan may, for the purposes of its implementation, provide for the establishment of a committee representing relevant stakeholders.

24. Content of air quality management plan

The air quality management plan developed under regulation 23 shall contain—

- (a) a coordination mechanism for air quality management in the affected area;
- (b) measures to identify the negative impact of poor air quality on human health and the environment;
- (c) measures to reduce and address the impacts of emissions from industrial sources;
- (d) measures to reduce and address the impacts of air pollution in residential areas, public areas and other sensitive environments;

- (e) emission reduction targets;
- (f) measures for the monitoring and management of indoor air quality to meet the standards prescribed in Schedule 6 to these Regulations;
- (g) measures to reduce and address the impacts of emissions from point or non-point sources of air pollution other than those contemplated in paragraphs (c) and (d);
- (h) timelines and responsible entities for each measure identified in this regulation;
- (i) thresholds for control areas in accordance with regulation 28(2);
- (j) measures to implement the obligations in respect of international and regional treaties, conventions and agreements;
- (k) strategies to improve air quality and to give effect to best practice in air quality management; and
- (l) an indication of how the relevant lead agency shall give effect to its air quality management plan.

25. Reporting on implementation of air quality management plan

A lead agency shall submit an annual air quality management report to the Authority including information on—

- (a) the status of air quality within its area of jurisdiction;
- (b) the air quality standards being focused on;
- (c) air quality management initiatives undertaken during the reporting period;
- (d) the level of compliance with the ambient air quality standards in Schedule 2 to these Regulations and the

emission control requirements in Schedules 3, 4, 5 and 6 to these Regulations, as appropriate;

- (e) measures taken and activities implemented in response to air pollution incidents, including efforts to meet the emission reduction targets;
- (f) measures to ensure compliance with the air quality standards;
- (g) air quality monitoring activities; and
- (h) recommendations and lessons learned, if any.

26. Assessment of air quality

(1) A relevant lead agency shall, in consultation with the Authority, assess the air quality within its jurisdiction to—

- (a) establish source contributions to concentrations of pollutants in the air;
- (b) forecast air concentrations of pollutants of concern, given a business as usual scenario;
- (c) identify emission reduction measures suited to reduce contributions from major sources and associated timeframes for implementation;
- (d) in regard to measures to reduce and maintain air quality within the limits prescribed in these Regulations—
 - (i) assess the environmental and social benefits;
 - (ii) determine the technical feasibility;
 - (iii) evaluate the economic implications; and
 - (iv) assess the legal applicability of those measures;
- (e) prioritise emission reduction measures on the basis of their environmental and social benefits, technical feasibility and economic viability;

- (f) determine the time required to reduce air pollutant concentrations to fall within the limits prescribed by these Regulations, taking into account the implementation of prioritised emission reduction measures; and
- (g) establish any other monitoring frameworks as may be deemed necessary.

(2) For the purposes of subregulation (1), the lead agency shall—

- (a) install and maintain air quality monitoring equipment at pollution prone areas within its jurisdiction; and
- (b) develop air pollution inventories for point and non-point source emissions.

(3) Where air quality monitoring equipment is installed in accordance with subregulation (2), the lead agency shall maintain the integrity of the equipment and ensure that—

- (a) there is a quality assurance and quality control mechanism associated with the use of the equipment;
- (b) the equipment is well calibrated and maintained; and
- (c) the emission source is kept operating during inspections.

(4) An air quality assessment undertaken under this regulation shall take into account—

- (a) background information on the concentration of air pollutants not directly affected by local sources of pollution;
- (b) baseline air quality levels;
- (c) transboundary sources of air pollutants;

- (d) ambient air quality in protected areas, sensitive ecosystems, as well as cultural and natural heritage sites, as appropriate;
- (e) ambient air quality in settlements and industrial areas;
- (f) the extent of occupational exposure of workers; and
- (g) as appropriate, in-door exposure levels not necessarily covered under paragraphs (e) and (f).

(5) The air quality assessments carried out under this regulation shall be used for the development of the air quality management plan under regulation 23.

27. Classification of zones and air quality assessments

(1) The Authority may, in collaboration with the relevant lead agency, classify the country into different air quality management zones for purposes of these Regulations.

(2) The Authority shall review the classification of zones carried out in accordance with subregulation (1) annually, to assess whether the pollutant levels have changed in ambient air.

(3) The assessment in subregulation (2) shall provide adequate information on the spatial and temporal distribution of the pollutants in ambient air.

(4) The Authority shall, in consultation with the relevant lead agency and other stakeholders, establish sampling locations and install air quality monitoring and sampling equipment to enable the assessment in subregulation (2) to be undertaken.

(5) The Authority may, in consultation with the relevant lead agencies and other stakeholders, establish sampling locations for particular pollutants for the purpose of assessing compliance with emission limit values, not limited to ambient air pollution sources.

(6) For the purposes of this regulation, threshold assessments shall be undertaken in control areas set out under regulation 28(3).

28. Threshold assessments for control areas

(1) Without limiting the general effect of this Part, the Authority shall, in collaboration with the relevant lead agencies, undertake threshold assessments for control areas to ensure that the level of pollutants in ambient and in-door air quality are not exceeded, in compliance with Schedule 2 and Schedule 6 to these Regulations.

(2) For the purposes of subregulation (1) and to minimise risk to human health arising from exposure to pollutants, the Authority and the relevant lead agencies shall, in accordance with management plans developed under regulation 23, establish thresholds of ambient and in-door air quality standards that shall not be exceeded in control areas.

- (3) For the purposes of these Regulations, control areas are—
- (a) residential areas;
 - (b) hospitals;
 - (c) universities, tertiary institutions, schools and other educational centres;
 - (d) passenger carrying spaces and stations (terminals) of air, rail and road transport;
 - (e) national parks, wildlife reserves and sanctuaries;
 - (f) conservation areas;
 - (g) central business districts; and
 - (h) any other areas as may be determined by the Authority.

(4) The Authority may, in collaboration with the relevant lead agency, periodically review the list of control areas set out in subregulation (3) where there are significant changes in the activities which may affect the levels of pollutants in ambient and indoor air.

29. Short-term action plans

(1) Where it is established during monitoring under regulation 22 that the air quality in an area exceeds the emission limits prescribed in the air quality standards, the Authority or the relevant lead agency may develop and implement a short-term action plan set out in Schedule 7 to these Regulations.

(2) A short-term action plan developed under subregulation (1) shall set out the measures intended to reduce the pollution to a level below the emission limits prescribed in these Regulations, within a period specified by the Authority.

(3) The measures referred to under subregulation (2) shall include—

- (a) the location of significant air pollution, including a map and geographical coordinates;
- (b) general information, including the type of geographical area, estimate of the polluted area and the number of people exposed to the pollution, relevant climatic data, data on topography and information on specific pollutants to be monitored in the area;
- (c) the responsible authorities;
- (d) the nature and assessment of pollution, including concentrations observed over previous years or measured since the beginning of the assessment and techniques used for the assessment;
- (e) the origin of the pollution, including a list of the main emission sources responsible for the pollution, the total quantity of emissions from the sources and information on pollution originating from other areas of Uganda or from transboundary sources;
- (f) an analysis of the status of pollution, including details of the factors responsible for the excess emissions beyond the

- prescribed limit or target value and details of appropriate measures for the improvement of air quality;
- (g) determination of the severity of the pollution in the areas of concern;
 - (h) targets for emission reduction;
 - (i) details of measures and strategies to reduce or control pollution and to improve air quality and the expected time required to attain the required targets;
 - (j) details of the measures or projects planned or being researched on for long term management of air quality; and
 - (k) any other information as the Authority may deem necessary.

30. Air quality awareness and information

The Authority shall, in collaboration with the relevant lead agency and other stakeholders—

- (a) undertake air quality awareness programmes for the public;
- (b) provide and disseminate information to the public in respect the implementation of air quality management plans and short term action plans; and
- (c) undertake and support research in innovations, new technologies and emerging issues on air quality.

PART VII—AIR QUALITY COMPLIANCE MONITORING AND MANAGEMENT BY OPERATORS

31. Air quality compliance monitoring programme

(1) An operator shall develop and implement an air quality compliance monitoring programme to ensure compliance with these Regulations.

(2) An air quality compliance monitoring programme developed under subregulation (1) shall—

- (a) be based on an environmental risk assessment of the potential air pollution likely to arise from the operations of the facility and any hazards that the pollutants may present;
- (b) comprise the content referred to in regulation 22(2); and
- (c) include the implementation of appropriate measures required to effectively monitor, report and verify compliance with air quality standards.

(3) For the purposes of developing an air quality compliance monitoring programme referred to in subregulation (1), an operator shall generate monitoring data indicating—

- (a) the type and source of air pollution;
- (b) emission concentrations from direct sources of pollution;
- (c) fence-line monitoring for specific ambient air quality levels;
- (d) emission control measures and technologies;
- (e) status of compliance to emission limits; and
- (f) any other monitoring information.

(4) An operator shall install, calibrate, undertake performance testing, maintain and operate equipment or establish equivalent emission measuring systems for continuously monitoring and recording emission levels in accordance with these Regulations.

(5) The air quality compliance monitoring programme developed under this regulation shall be for a duration of five years, and shall be updated for the subsequent monitoring cycle.

32. Facility air quality management plan

(1) An operator shall develop a facility air quality management plan to ensure compliance with the relevant emission limits prescribed in these Regulations or a licence issued under these Regulations, within a specified timeframe.

(2) The facility air quality management plan developed under subregulation (1) shall form part of the air quality compliance monitoring programme referred to in regulation 31.

(3) A facility air quality management plan shall contain—

- (a) measures to identify and reduce the negative impact of poor air quality on human health and the environment, including emission reduction strategies and best available control technologies;
- (b) measures for the monitoring and management of indoor air quality;
- (c) measures to address the impacts of emissions from any source of air pollution;
- (d) strategies to improve air quality and to give effect to best practice in air quality management, including by use of best available control technologies; and
- (e) an indication of how the management plan is to be implemented.

(4) A facility air quality management plan developed under this regulation shall be reviewed and assessed for effectiveness at least once a year.

(5) The facility air quality management plan shall be made available to the Authority and the relevant lead agency, upon request.

33. Air quality assessment by operators

(1) The operator shall routinely assess the air quality in the facility of an operator to—

- (a) establish source contributions to concentrations of pollutants in the air;
- (b) identify emission reduction measures suited to reduce contributions from major sources and set associated timeframes for their implementation;
- (c) assess the environmental and social benefits of measures to reduce and maintain air quality within the limits prescribed by these Regulations;
- (d) prioritise emission reduction measures on the basis of their environmental and social benefits, technical feasibility and economic viability; and
- (e) determine the time required to reduce air pollutant concentrations to fall within the limits prescribed by these Regulations.

(2) The facility air quality assessment shall be used for the development of the facility air quality management plan referred to in regulation 32 and shall be made available to the Authority and the relevant lead agency, upon request.

34. Compliance with emission thresholds

(1) An operator shall comply with emission thresholds of the area where the facility is located in accordance with regulation 28(3), the air quality compliance monitoring programme developed under regulation 31 and the air quality standards set out in Schedule 3 to these Regulations.

(2) Notwithstanding regulation 6(4), where the area referred to in subregulation (1) is highly polluted before the establishment of the facility, the Authority may require the operator to comply with

additional measures aimed at limiting the contribution of the facility to the air pollution in that area.

(3) Where an operator is required to comply with additional measures under subregulation (2), the operator shall submit to the Authority quarterly reports indicating compliance status.

35. Facility short term air quality action plan

(1) An operator shall develop and implement a facility short term air quality action plan in the format set out in Schedule 7 to these Regulations where it is established, during monitoring under regulation 31, that the emissions to air from the facility exceed the emission limits prescribed by these Regulations or a licence issued under these Regulations.

(2) The facility short term air quality action plan shall be made quarterly and set out in the corrective action plan required as part of an environmental compliance audit under the National Environment (Audit) Regulations, 2020.

(3) Without prejudice to subregulation (2), the Authority may require an existing facility or project to develop an air quality short term action plan as part of the environmental compliance agreement made under the National Environment (Audit) Regulations, 2020.

(4) Notwithstanding subregulations (2) and (3), the facility short term air quality action plan developed under this regulation shall be made available to the Authority and the relevant lead agency, upon request.

36. Emission testing and analysis

(1) The Authority or the relevant lead agency may require an operator to undertake emission tests in the facility of the operator and to provide appropriate sampling platforms.

(2) An operator shall ensure that any analysis of air pollutants under these Regulations is carried out in accordance with national standards or internationally recognised test methods.

(3) The analysis referred to in subregulation (2) shall be carried out by a laboratory designated or accredited under section 124 of the Act.

37. Annual emissions compliance report

(1) An operator shall submit an annual emissions compliance report to the Authority and the relevant lead agency within two months after the end of every calendar year, in the format set out in Schedule 8 to these Regulations.

(2) The annual emissions compliance report shall include air quality monitoring records and action plans and shall contain—

- (a) the status of the ambient air quality and indoor air quality within the facility;
- (b) the emission sources;
- (c) the emission data for the relevant calendar year;
- (d) the initiatives for management of emissions undertaken during the reporting period;
- (e) the level of compliance with the air quality standards;
- (f) the air quality monitoring activities; and
- (g) any other information the Authority may deem necessary.

38. Incident report

An operator shall report to the Authority and the relevant lead agency any event resulting in excess emission—

- (a) by giving notice of the event within twenty-four hours after the occurrence of the event; and
- (b) by delivering a written report to the Authority within fourteen days after the occurrence of the event, describing

the circumstances surrounding the event and the corrective measures taken or planned to be taken to prevent future occurrence of the event.

39. Greenhouse and ozone depleting gases

(1) An operator likely to emit greenhouse gases or ozone depleting gases shall put in place measures for the control of those gases, in accordance with the Act, the National Climate Change Act, 2021, the National Environment (Management of Ozone Depleting Substances and Products) Regulations, 2020, these Regulations and other written law.

(2) The measures referred to in subregulation (1) shall include—

- (a) the adoption of new and appropriate technologies;
- (b) re-design of facilities;
- (c) routine monitoring of gases emitted by the facility;
- (d) keeping a record of the monitoring information referred to in paragraph (c) in accordance with regulation 40; and
- (e) any other measures relevant to ensuring compliance with nationally determined contributions under the National Climate Change Act, 2021.

(3) The monitoring of greenhouses gases and ozone depleting gases emitted shall be documented in the annual emissions compliance report referred to in regulation 37(1).

40. Duty to keep records

(1) An operator shall keep records required under this Part.

(2) The records referred to in subregulation (1) include—

- (a) the nature and type of technologies and practices at the facility;

- (b) the operations, including assessment and monitoring records of air pollutants relevant for the operations or activities;
- (c) incident reports and measures taken;
- (d) records on indoor and ambient air quality; and
- (e) any other information the Authority as may deem necessary.

(3) An operator shall keep the records referred to in this regulation for a period of seven years or such greater period as may be prescribed by the Authority.

(4) The records kept under subregulation (1), including electronic records, shall be made available to the Authority or an authorised officer, upon request.

PART VIII—AIR POLLUTION CONTROL LICENCE

41. Liability of polluter

A person who pollutes the air contrary to the Act, these Regulations and any other written law is strictly liable for any damage caused to human health or to the environment, regardless of fault.

42. Application for air pollution control licence

(1) An operator shall not, from any point source, cause emission of any pollutant in excess of the air quality standards prescribed in these Regulations without an air pollution control licence issued in accordance with the Act and these Regulations.

(2) An application for a pollution control licence shall be made to the Authority in Form 1 set out in Schedule 9 and on payment of the fee prescribed in Schedule 10 to these Regulations.

(3) An application under subregulation (2) shall—

- (a) contain general information regarding—
 - (i) the legal status of the applicant; and
 - (ii) a description of the technical competence and experience of the applicant, including the personnel;
- (b) demonstrate that all reasonably practicable and appropriate measures to control emissions within acceptable limits have been taken, to no avail;
- (c) contain a description of the best available technologies and equipment to be acquired, including any modifications in the technology required;
- (d) contain a description of the emitting equipment, including—
 - (i) the emission levels at start-up of equipment, maintenance and shut-down of equipment;
 - (ii) the emission levels expected during normal operations;
 - (iii) the nature and concentrations of emissions; and
 - (iv) the maximum allowable pollutant concentrations by law;
- (e) contain a description of best environmental practices to be used at the facility or operations;
- (f) contain a compliance plan indicating the proposed activities and the schedule for bringing the facility into compliance where—
 - (i) the expected emissions from the facility are likely to exceed the applicable emission standards;
 - (ii) dispersion modelling is done for any expected emissions from the facility, and the emissions are found to be likely to exceed the ambient air quality standard; or

(iii) the expected ambient air quality measurements at required monitoring locations exceed an air quality standard prescribed in Schedule 2 to these Regulations;

(g) state the emission control equipment in place; and

(h) state whether the operator has an air quality compliance monitoring programme and the status of compliance with the programme.

(4) An application under subregulation (2) shall be accompanied by—

(a) a certificate of approval of environmental and social impact assessment, where applicable;

(b) a brief description of the facility, its location, the processes or activities undertaken and a site layout plan, where applicable;

(c) recent records of the emissions released from the facility, where applicable; and

(d) any other information that the Authority may deem necessary.

(5) The Authority may, having regard to the nature of the facility and the air pollution likely to result from that facility, request the applicant to submit an environmental compliance audit conducted in accordance with the Act and the National Environment (Audit) Regulations, 2020.

43. Preliminary review by Authority

(1) On receipt of an application under regulation 42, the Authority shall undertake a preliminary review of the application to determine whether the applicant has taken all reasonably practicable and appropriate measures to control emissions within the acceptable limits without success.

(2) Where, after the preliminary review referred to in subregulation (1), the Authority is not satisfied that the applicant took all reasonable practicable and appropriate measures to control emissions within acceptable limits, the application shall be rejected and the applicant notified in writing, stating the reasons for the rejection.

44. Consultations

(1) Where an application has been reviewed and accepted under regulation 43(1), the Authority may consult the relevant lead agencies or persons likely to be affected by the proposed activity before making a decision on the application.

(2) The lead agency or other person consulted under subregulation (1) shall review the application and submit to the Authority comments and recommendations on the application within fourteen days of receipt of the application.

45. Consideration of application

(1) The Authority shall consider the comments received under regulation 44(2) and may—

- (a) require the technical committee on pollution control established under section 21 of the Act to conduct inspections necessary to enable the Authority to make an informed decision regarding—
 - (i) the sufficiency of systems in place for the control of air pollution;
 - (ii) the availability of adequate and appropriate facilities and equipment to control air pollution;
 - (iii) measures for the protection of human health and the environment;
 - (iv) any other specific measure that may be deemed necessary; and

- (b) ensure that the applicant has in place an air quality compliance monitoring programme at the facility.

(2) The Authority may, before granting or rejecting an application, request the applicant to furnish further information, including information relating to the facility, activity or technology at the facility.

(3) The request under subregulation (2) shall be made in writing, prescribing a reasonable timeframe for response by the operator.

46. Decision on application

(1) An application for an air pollution control licence shall be processed expeditiously, but in any case not later than forty-five days from the date of receipt of a complete application.

(2) The Authority shall, before granting a licence under this regulation, verify that the applicant has taken all possible measures to comply with the Act, these Regulations, any other written law and environmental standards.

(3) Where the Authority grants the application, it shall issue a licence in Form 2 set out in Schedule 9 to these Regulations.

(4) Where the Authority rejects an application for an air pollution licence, it shall state, in writing, its reasons for doing so.

47. Conditions in licence

The Authority may, in granting a licence under regulation 46, impose conditions, including requirements relating to—

- (a) compliance with the Act, these Regulations, the National Environment (Audit) Regulations, 2020, any other written law and environmental standards;
- (b) performance standards to which the facility is subject, including the application of best available techniques, best

available technologies and best environmental practices which—

- (i) require adoption of the most effective, advanced and practically suitable methods of operation; and
 - (ii) balance the cost to the operator with benefits to human health and the environment;
- (c) permitted emission limits applicable to the facility;
 - (d) alert systems that warn where the permitted emission limits are being exceeded;
 - (e) pollution abatement and risk reduction;
 - (f) air quality compliance monitoring programmes and air quality management plans;
 - (g) additional measures for the protection of human health and the environment; and
 - (h) any other measures as the Authority may deem necessary.

48. Duration of licence

An air pollution control licence shall be valid for a period not exceeding one year.

49. Variation, suspension or revocation of licence

(1) The Authority may vary, suspend or revoke a licence issued under regulation 46.

(2) The reasons for variation of the licence under subregulation (1) include—

- (a) to prevent deterioration or further deterioration of the air quality;
- (b) to comply with any written law and environmental standards, including appropriate safeguards;

- (c) to cater for previously unforeseen circumstances that impact on human health or the environment; or
- (d) for any other reason the Authority may consider relevant.

(3) Where the variation relates to substantive matters referred to in subregulation (2), the Authority may require the operator—

- (a) to halt project activities until the variation has been made and an updated air pollution control licence is granted;
- (b) to conduct such investigations and assessments as the Authority may direct and to submit to the Authority reports with any comments on those reports from interested and affected parties; and
- (c) to consult the relevant lead agency in accordance with regulation 44.

(4) Where the variation is at the initiative of the Authority, the Authority shall—

- (a) notify the operator in writing, of the proposed variation;
- (b) give the operator an opportunity to comment on the proposed variation in writing within the timeframe indicated in the notification under paragraph (a); and
- (c) where necessary, consult the relevant lead agency in accordance with regulation 44 and accord it the opportunity to submit to the Authority written comments on the proposed variation.

(5) The Authority shall, within twenty one days of completing the process contemplated for substantive variations in subregulation (2)—

- (a) vary or decline to vary the licence; and
- (b) notify the operator and other interested or affected parties, if any, of the decision and the reasons for the decision.

(6) Where the Authority varies a licence, the variation shall be without prejudice to any liabilities or obligations which may have accrued to the operator before the variation was effected.

(7) The Authority may suspend or revoke a licence where—

- (a) information or data given by the operator in the application or during consultations was false, substantially incorrect or intended to mislead;
- (a) information related to the conduct of the operator which could have precluded the approval of the application had it been available to the Authority, is brought to the attention of the Authority;
- (b) there is non-compliance with the Act, these Regulations or the conditions of a licence;
- (c) it is necessary to protect human health or to prevent harm or further harm to the environment, due to a situation that was not foreseen during the grant of the licence; or
- (d) there is a substantial change or modification of the process or technology, the basis on which the licence was granted, which may lead to adverse environmental impacts or endanger human health or undermine safety.

(8) Where the Authority intends to suspend or revoke a licence, it shall—

- (a) notify the operator of the intention at least fourteen days before the decision; and
- (b) inform the operator of their right to show cause why the licence should not be suspended or revoked.

(9) An operator given notice under subregulation (8) shall give a written response to the Authority within seven days from the date of receipt of the notice, stating reasons why the licence should not be suspended or revoked.

(10) The Authority may, after the expiration of the period specified in subregulation (9), suspend or revoke the licence where—

- (a) it is not satisfied with the reasons given by the operator; or
- (b) it has not received a response from the operator.

(11) Notwithstanding subregulation (9), the Authority may, depending on the gravity of the matter, suspend or revoke a licence granted under these Regulations without notice and immediately stop the operations of the operator.

(12) Where a licence is suspended or revoked under subregulation (10) or (11), the operator shall stop further operations and undertake remedial measures necessary for compliance with the requirements of the Act, these Regulations and other written law.

(13) Where a licence has been suspended and the operator has undertaken remedial measures under subregulation (12) to the satisfaction of the Authority, the operator may apply to the Authority for reconsideration.

50. Renewal of licence

(1) A person granted a licence under these Regulations may apply to the Authority for renewal of the licence, at least sixty days before the expiration of the licence.

(2) An application under subregulation (1) shall be in Form 1 set out in Schedule 9 to these Regulations and subject to payment of the fee prescribed in Schedule 10 to these Regulations.

(3) The applicant shall, for the purposes of the renewal of a licence demonstrate—

- (a) that during the subsistence of the licence, measures were taken to bring the emissions within acceptable limits, but more time and resources are needed;

- (b) the adequacy of existing monitoring data for air quality;
- (c) how the monitoring data relates to past, present and future facility operating conditions;
- (d) the functionality of the air quality compliance monitoring programme and air quality management plans in place; and
- (e) the effectiveness of proposed interventions towards achieving continuous improvement.

(4) The application under subregulation (1) shall be accompanied by—

- (a) a copy of the current licence;
- (b) evidence of compliance with the conditions of the licence to be renewed, including, where applicable, the most recent environmental compliance audit report;
- (c) a copy of the most recent annual emissions compliance report referred to in regulation 37(1); and
- (d) any other information required by the Authority.

(5) The Authority shall process the application for renewal in accordance with this Part.

(6) The Authority may, in renewing a licence under this regulation, impose any of the conditions specified in regulation 47.

51. Transfer of facility ownership

(1) Where the operator wishes to transfer a facility, the operator shall, at least ninety days before the date of the proposed transfer—

- (a) notify the Authority in writing of the intention to transfer the facility; and
- (b) require the transferee to apply to the Authority for a licence in accordance with these Regulations.

(2) Where the operator has not processed the transfer in accordance with subregulation (1), the transferee shall obtain the information of the operator and notify the Authority of the transfer.

(3) The transferee referred to under subregulation (2) shall apply to the Authority for a licence to control air pollution in accordance with these Regulations.

(4) The application under subregulation (3) shall, in addition to the requirements of regulation 42—

- (a) state the name and address of the transferee;
- (b) state the technical and financial capacity of the transferee to carry on with control of air pollution;
- (c) state that the transferee shall be responsible for all the liabilities of the facility;
- (d) include a resolution of the company and a certified copy of a certificate of incorporation or registration; and
- (e) contain any other information as the Authority may deem necessary.

(5) The Authority may, in accordance with these Regulations, approve the application under this regulation.

(6) Where the Authority makes a decision to issue a licence, it shall cancel or withdraw the licence issued to the transferor.

PART IX—ADMINISTRATIVE AND OTHER MEASURES

52. Database of licences

(1) The Authority shall maintain a database of licences issued under these Regulations.

(2) The database referred to in subregulation (1) shall include the particulars of the facility, details of the air pollution control licence and a record of monitoring reports, including annual emissions compliance reports.

(3) Subject to the Constitution, the Access to Information Act, 2005 and any other written law, the database maintained under subregulation (1) may be made accessible to the public upon request and payment of the fee prescribed in Schedule 10 to these Regulations.

53. Inspection and monitoring

The Authority, an occupational hygienist, environmental inspector or an authorised officer may conduct regular inspections and monitoring of a facility or other area to—

- (a) enforce compliance by the operator of the facility or any other person with the Act, these Regulations, the Occupational Safety and Health Act, 2006, other relevant law and environmental standards;
- (b) ascertain that appropriate measures are in place for the avoidance or minimisation of air pollution;
- (c) ensure that the information contained in reports and other documents submitted or availed to the Authority or relevant lead agency by the operator reflects the performance of the facility;
- (d) assess the quality of air, including by inspecting air pollution control log-frames and technologies at the facility;
- (e) review compliance with licences and facility air quality management plans; and
- (f) perform such other tasks as may be necessary to bring the facility into compliance with these Regulations.

54. Improvement notice

(1) An environmental inspector may, in accordance with section 135 of the Act, issue an improvement notice to an operator whose activities or operations are causing or a likely to cause air emissions in excess of the limits provided for by these Regulations.

- (2) An improvement notice shall—
 - (a) specify the breach in respect of which it is issued;
 - (b) specify the measures to be taken to ameliorate the situation;
 - (c) specify the timelines within which the measures in paragraph (b) shall be undertaken; and
 - (d) where appropriate, require the immediate cessation of the breach.

55. Administrative measures

(1) Without prejudice to any penalty imposed by a competent court under these Regulations, the Authority, a relevant lead agency, an occupational hygienist or an authorised officer may—

- (a) give a written warning to the operator of a vessel;
- (b) enter upon any premises or facility to conduct a search and to determine whether any equipment or technologies emit air pollutants beyond permissible levels or in contravention of the conditions of a licence issued under these Regulations;
- (c) carry out such inspections as may be necessary to ensure that the emission source is brought to compliance with these Regulations, including stopping and inspecting any vessel used for transport;
- (d) order an operator or vessel to immediately suspend or terminate an activity where there is an acute risk of harm to human health or the environment;

- (e) seize any property, vessel, equipment, substance, technology or other thing which has been used or is being used in contravention of the Act or these Regulations;
- (f) close a facility or order the grounding of any vessel which is in contravention of the Act or these Regulations;
- (g) order the operator or vessel to adopt appropriate technologies to install appropriate equipment;
- (h) order the operator or vessel to undertake air quality compliance monitoring and to put in place control measures as the Authority may direct;
- (i) cause a police officer to arrest any person believed to have contravened the Act or these Regulations;
- (j) impose an administrative penalty prescribed by law on a person who contravenes these Regulations;
- (k) impose a surcharge of five percent of the amount required to be paid which is in default, for each day or part of a day of default; or
- (l) order the payment of costs and expenses incurred by the Authority, relevant lead agency, and occupational hygienist or authorised person in administering the measures under this regulation.

(2) A local authority may levy a congestion charge on a motorist, as a disincentive for the use of a motor vehicle, motorcycle or other vessel in congested areas as a control measure against pollution.

PART X—OFFENCES AND PENALTIES

56. Negligent acts

- (1) A person who—
 - (a) neglects to maintain any equipment or a vessel;

- (b) fails to develop and implement an air quality compliance monitoring programme or air quality management plan;
- (c) fails to install or use air quality monitoring equipment, commits an offence and is liable, on conviction,—
 - (i) in the case of an individual, to a fine not exceeding twenty thousand currency points or imprisonment not exceeding four years, or both;
 - (ii) in the case of a body corporate, to a fine not exceeding fifty thousand currency points; or
 - (iii) in the case of a continuing offence, to a fine not exceeding two thousand currency points in respect of each day or part of day on which the offence continues.

(2) A person who operates without a licence required under these Regulations commits an offence and is liable, on conviction, to a fine not exceeding fifty thousand currency points or imprisonment not exceeding ten years, or both.

(3) The owner, operator or occupier of premises in a control area who refuses, fails or neglects to immediately undertake remedial action where indoor air quality in those premises deteriorates severely, thereby causing concern of severe public health hazards, commits an offence and is liable, on conviction to a fine not exceeding fifty thousand currency points or imprisonment not exceeding ten years, or both.

SCHEDULE 1

Regulation 3

CURRENCY POINT

A currency point is equivalent to twenty thousand shillings

SCHEDULE 2

*Regulations 5(1), 7(2), 9(3), 14, 15(3),
25(d), 28(1)*

AMBIENT AIR QUALITY STANDARDS AND TOLERANCE LIMITS.

Table 1: Criteria for Ambient Air Quality Standards and Tolerance Limits

No.	Pollutant	Time-weighted Average	Standard for Ambient Air
	Carbon monoxide (CO)	24-hour	7 mg/m ³
		8-hour	10 mg/m ³
		1-hour	35 mg/m ³
	Hydrogen Sulphide (H ₂ S)	1-hour	42 µg/m ³
	Ozone (O ₃)	1-hour	235 µg/m ³
		8-hour	120 µg/m ³
	PM _{2.5}	Annual average	25 µg/m ³
		24-hour	35 µg/m ³
	PM ₁₀	Annual average	40 µg/m ³
		24-hour	60 µg/m ³
	Sulphur dioxide (SO ₂)	1-hour	50 µg/m ³
		24-hour	20 µg/m ³
	Nitrogen dioxide (NO ₂)	Annual average	30 µg/m ³
		24-hour	50 µg/m ³
	Total Volatile Organic Compounds (VOCs)	24-hour	600 µg/m ³

Table 2: Hazardous Ambient Air Pollutants

No.	Pollutant	Time-weighted Average	Standard for Emissions sources
Inorganic Pollutants			
	Ammonia (NH ₃)	24 hours	200 µg/m ³
	Arsenic (As)	Annual	6 ng/m ³
	Asbestos	No safe levels	No safe levels of exposure
	Carbon disulfide (CS ₂)	30 minutes	20 µg/m ³
	Cadmium (Cd)	Annual	5 ng/m ³
	Lead (Pb)	3 months	0.15 µg/m ³
	Manganese (Mn)	annual	0.15 µg/m ³
	Mercury (Hg)	annual	1 µg/m ³
	Nickel (Ni)	Annual	20 ng/m ³
	Vanadium (V)	24 hours	1 µg/m ³
Organic Pollutants			
	Benzene	Annual	5 µg/m ³
	Benzo(a)pyrene	24 hrs	1 ng/m ³
	Butadiene	24 hours	50 µg/m ³
	1,2-Dichloroethane	24 hours	0.7 mg/m ³
	Dichloromethane	24 hours	3 mg/m ³
		1 week	0.45 mg/m ³
	Formaldehyde	30 minutes	0.1 mg/m ³
	Polycyclic aromatic hydrocarbons (Total PAHs)	Annual	5 ng/m ³

	Styrene	24 hours	125 $\mu\text{g}/\text{m}^3$
		annual	50 $\mu\text{g}/\text{m}^3$
	Tetrachloroethylene	annual	0.25 mg/m^3
		30 minutes	8 mg/m^3
	Toluene	1 week	0.26 mg/m^3
		30 minutes	1 mg/m^3
	And any other parameter as may be prescribed by the Authority from time to time		

Legend

- a) μg - microgram.
- b) m^3 – cubic meter.
- c) $\text{PM}_{2.5}$ - particulate matter with an aerodynamic diameter of less than or equal to a nominal 2.5 micrometers, as determined by the appropriate validated method of analysis.
- d) PM_{10} - particulate matter with an aerodynamic diameter of less than or equal to a nominal 10 micrometers, as determined by the appropriate validated method of analysis.
- e) n-nonogram.

SCHEDULE 3

*Regulations 6(1), 11(2)(a), 15(3),
25(d) and 34(1)*

**MAXIMUM PERMISSIBLE EMISSION LIMITS FOR STACKS, CHIMNEYS, VENTS AND OTHER
STATIONARY EMISSION SOURCES**

PARAMETERS AND MAXIMUM VALUES						
SOURCE	PM*	PARAMETERS <i>(All units are in mg/Nm³, unless otherwise specified)</i>				OTHER/ COMMENTS
		SO_x or SO₂	NO_x or NO₂	HF		
Aluminium production and manufacturing (all installations)	New	50	-	0.5	<input type="checkbox"/> Total F: 2 <input type="checkbox"/> VOCs: 20 <input type="checkbox"/> Hydrocarbons: 20 <input type="checkbox"/> As: 0.1 <input type="checkbox"/> Cd: 0.05 <input type="checkbox"/> Cu: 0.5 <input type="checkbox"/> Hg: 0.05 <input type="checkbox"/> Pb: 0.5 <input type="checkbox"/> Zn: 1	
	Existing	250	-	1		

Incinerators	New	10	50	200	1	<input type="checkbox"/> HCl: 10 <input type="checkbox"/> Dioxins and Furans: 0.1ng TEQ/m ³ <input type="checkbox"/> Cd: 0.05 <input type="checkbox"/> CO: 50 <input type="checkbox"/> Hg: 0.05 <input type="checkbox"/> Total Metals: 0.5 <input type="checkbox"/> F: 5
						<input type="checkbox"/> As: 0.1 <input type="checkbox"/> Cd: 0.05 <input type="checkbox"/> Cu: 0.5 <input type="checkbox"/> Hg: 0.05 <input type="checkbox"/> Pb: 0.5 <input type="checkbox"/> Zn: 1
Iron and steel manufacturing	New	50	500 (sintering)	180	-	
	Existing	120	-	200	-	
	New and existing	20 (40 for Zn and Cd)	400	500	-	
Lead and Zinc, Nickel or Cadmium smelting						

Copper smelting	New and existing	<input type="checkbox"/> 20 (smelters) <input type="checkbox"/> 50 (other sources)	1,000	-	-	<input type="checkbox"/> As: 0.5 <input type="checkbox"/> Cd: 0.05 <input type="checkbox"/> Cu: 1 <input type="checkbox"/> Pb: 0.2 <input type="checkbox"/> Hg: 0.05
Electronics manufacturing	New and existing	50	-	-	5	<input type="checkbox"/> VOCs: 20 <input type="checkbox"/> Phosphine: 1 <input type="checkbox"/> Arsine: 1 <input type="checkbox"/> HCl: 10 <input type="checkbox"/> As: 0.1 <input type="checkbox"/> Cd: 0.05 <input type="checkbox"/> Cu: 0.5 <input type="checkbox"/> Hg: 0.05 <input type="checkbox"/> Pb: 0.5 <input type="checkbox"/> Zn: 1
Electroplating industry	New and Existing	-	-	-	-	<input type="checkbox"/> VOCs: 90% recovery

Foundries	New	20	400	400	400	5	-
	Existing	50	-	400	400	-	-
Furnace: blast oxygen, electric arc furnaces in the steelmaking industry, blast furnace (all installations)	New	30	500	500	500	-	-
	Existing	100	-	-	-	-	-
Glass manufacturing	New	20	<input type="checkbox"/> 1500 (Oil fire)	1,000			<input type="checkbox"/> Pb + Cd: 5 <input type="checkbox"/> Other heavy metals (total): 5
	Existing	50	<input type="checkbox"/> 700 (Gas)	2000			<input type="checkbox"/> As: 1 <input type="checkbox"/> F: 5 <input type="checkbox"/> HCl: 50
Ceramic production (tiles bricks, refractory bricks, stoneware or porcelain ware by firing excluding clamp kilns)	New	150	400	-	-	50	-
	Existing	150	400	-	-	-	-

Cement manufacturing and lime production	New	<input type="checkbox"/> 30 (separate raw mill and clinker grinding, kiln) <input type="checkbox"/> 100 (Cooler ESP) <input type="checkbox"/> 50 (Cooler BF)	50	600	1	<input type="checkbox"/> Total Organic Compounds: 10 <input type="checkbox"/> HC: 101 <input type="checkbox"/> Cadmium plus Thallium: 0.05 <input type="checkbox"/> Hg: 0.05 <input type="checkbox"/> Sum of arsenic, antimony, lead, chromium, cobalt, copper, manganese, vanadium, nickel: 0.5 <input type="checkbox"/> Dioxins and furans: 1ng/m ³
	Existing	<input type="checkbox"/> 50 (Separate raw mill and clinker grinding) <input type="checkbox"/> 80 (Kiln) <input type="checkbox"/> 150 (Cooler ESP) <input type="checkbox"/> 50 (Cooler BF)	250	600	1	-

Mixed fertilizer plants: superphosphates, ammonium nitrate, ammonium phosphates or ammonium sulphates (all installations)	New	50	-	-	<input type="checkbox"/> 500 (nitro phosphate unit) <input type="checkbox"/> 70 (mixed acid unit)	5	<input type="checkbox"/> NH ₃ : 5
	Existing	100	-	-		30	<input type="checkbox"/> NH ₃ : 50
	New and Existing	50			300		<input type="checkbox"/> NH ₃ : 50 <input type="checkbox"/> urea: 50
Phosphate fertilizer plants	New and Existing	50	2kg/t acid (sulphuric acid plant)		-	-	<input type="checkbox"/> SO ₃ : 0.15 kg/t acid

Pesticides formulation and manufacturing	New and Existing	20 (5 where very toxic compounds are present)	-	-	-	<input type="checkbox"/> VOCs: 20 <input type="checkbox"/> Cl: 5 <input type="checkbox"/> TOC: 50 <input type="checkbox"/> Cl: 5 <input type="checkbox"/> HBr: 3 <input type="checkbox"/> HCN: 3 <input type="checkbox"/> HF: 3 <input type="checkbox"/> H ₂ S: 3 <input type="checkbox"/> Cl: 3 <input type="checkbox"/> NH ₃ : 30 <input type="checkbox"/> HCl:30
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Pharmaceutical manufacturing	20	-	-	-	-	<input type="checkbox"/> Active ingredients (each): 0.15 <input type="checkbox"/> *Class A compounds (total): 20 <input type="checkbox"/> **Class B compounds (total): 80 <input type="checkbox"/> Benzene :1 <input type="checkbox"/> Vinyl chloride: 1 <input type="checkbox"/> Dichloroethane:1 <input type="checkbox"/> VOCs: 20 <input type="checkbox"/> Bromides (as HBr): 3 <input type="checkbox"/> Chlorides (as HCl): 30 <input type="checkbox"/> (NH ₃): 30 <input type="checkbox"/> As: 0.05 <input type="checkbox"/> Ethylene Oxide: 0.5 <input type="checkbox"/> Mutagenic substances: 0.005
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Petrochemicals manufacturing	-	20	500	300	-	<input type="checkbox"/> HCl: 10 <input type="checkbox"/> Benzene: 5 (0.1 ppb) (plant fence) <input type="checkbox"/> 1,2-dichloroethane: 5 (1.0 ppb) (plant fence) <input type="checkbox"/> Vinyl chloride: 5 (0.4 ppb) (plant fence) <input type="checkbox"/> NH ₃ : 15 <input type="checkbox"/> NH ₃ : 100-400 <input type="checkbox"/> Hydrocarbons: 400-2000 <input type="checkbox"/> H ₂ S: 50-200
Waste water treatment plants	-	-	-	-	-	<input type="checkbox"/> VOCs: 20 <input type="checkbox"/> Hydrocarbons: 20
Textile industry	New and Existing	50	-	-	-	

Dye manufacturing	50	-	-	-	-	<input type="checkbox"/> Cl: 10 <input type="checkbox"/> VOCs: 20 <input type="checkbox"/> Odour (objectionable); minimise impact on people and the receiving environment <input type="checkbox"/> Hydrocarbons: 20 <input type="checkbox"/> H ₂ S: 15
Tanning and leather finishing	50	1000	1200	-	-	<input type="checkbox"/> Hydrocarbons: 20 <input type="checkbox"/> H ₂ S: 15
Printing industry, and pulp and paper mills	100 (recovery furnace)	-	2kg/t ADP (Air-Dried Pulp)	-	-	<input type="checkbox"/> Hydrocarbons: 20 <input type="checkbox"/> VOCs: 20 <input type="checkbox"/> HCl: 10 <input type="checkbox"/> VOCs: 20
Wood preserving	-	-	-	-	-	<input type="checkbox"/> Odour (Objectionable); minimise impacts on people and the receiving environment
Meat processing and rendering	150	-	-	-	-	<input type="checkbox"/> Odour (Objectionable); minimise impacts on people and the receiving environment

Sugar manufacturing	-	100	2,000	<input type="checkbox"/> 460 (130 ng/J or 225 ppm) Liquid fuels <input type="checkbox"/> 750 (260 ng/J or 365 ppm) Solid fuels	-	<input type="checkbox"/> Odour (Objectionable); minimise impacts on people and the receiving environment
Dairy industry	-	50	-	-	-	<input type="checkbox"/> Odour (Objectionable); minimise impacts on people and the receiving environment
Vegetable oil processing	-	50	-	-	-	<input type="checkbox"/> Odour (Objectionable); minimise impacts on people and the receiving environment

Other processes not specifically defined in the table	-	50	2,000 (SO ₂)	<input type="checkbox"/> Coal: 750 (260 ng/J or 365 ppm) <input type="checkbox"/> Oil: 460 (130 ng/J or 225 ppm) <input type="checkbox"/> Gas: 320 (86 ng/J or 155 ppm)	-	<input type="checkbox"/> Dioxins: 2, 3, 7, 8-TCDD equivalent): maximum of 1ng/Nm ³ <input type="checkbox"/> Total F: 2 <input type="checkbox"/> VOCs: 20 <input type="checkbox"/> Hydrocarbons 20 <input type="checkbox"/> As: 0.1 <input type="checkbox"/> Cd: 0.05 <input type="checkbox"/> Cu: 0.5 <input type="checkbox"/> Hg: 0.05 <input type="checkbox"/> Pb: 0.5 <input type="checkbox"/> Zn: 1 <input type="checkbox"/> PAHs 5 ng/m ³
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Thermal plants and processes/combustion installations used for steam or electricity generation									
Solid fuels ≥ 50 MW	New	50		150	-		-		-
	Existing	100		200	-		-		-
Liquid fuels e.g. heavy fuel and gas oil	New	50		50	75		-		-
	Existing	75		100	100		-		-
Gas fired plants	New	10		400	50		-		-
	Existing	10		500	200		-		-
Reciprocating engine (>10MW)	New	50		45	400		-		-
	Existing	50		100	400		-		-
Reciprocating engine (>50MW)	New	10		45	100		-		-
	Existing	35		100	125		-		-

Solid biomass	New	50 (all sizes)	<input type="checkbox"/> 70 (≥ 50 MW) <input type="checkbox"/> 50 (100-300 MW) <input type="checkbox"/> 35 (> 300 MW)	<input type="checkbox"/> 70 (≥ 50 MW) <input type="checkbox"/> 50 (≥ 100 MW)	5 (all sizes)	<input type="checkbox"/> HCl: 5 (all sizes)
	Existing	100 (all sizes)	<input type="checkbox"/> 1000 (> 50 MW) <input type="checkbox"/> 70 (100-300 MW) <input type="checkbox"/> 50 (> 300 MW)	<input type="checkbox"/> 200 (≥ 50 MW) <input type="checkbox"/> 150 (≥ 100 MW)	10 (all sizes)	<input type="checkbox"/> HCl: 10 (all sizes)
Combustion installations used for steam or electricity generation (all refinery furnaces and heaters)	New	50	800	400	-	<input type="checkbox"/> H ₂ S: 15 <input type="checkbox"/> Ni + V: 2
	New	100	1200	400	-	-
Catalytic cracking units (all installations)	New	100	1200	400	-	-

Vapour recovery units (loading and off-loading facilities with a throughput greater than 50000m ³)	-	-	-	-	-	-	<input type="checkbox"/> Total VOCs from vapour recovery units/ destruction units using thermal treatment: 150 <input type="checkbox"/> Total VOCs from vapour recovery units/ destruction units using non-thermal treatment: 40000
Industrial fuel oil recyclers with a throughput greater than 5000 ton/month	New and existing	-	500	-	-	-	<input type="checkbox"/> CO: 100 <input type="checkbox"/> Total VOCs from vapour recovery/ destruction units: 30 <input type="checkbox"/> Should achieve 95% efficiency with 99% availability
All sulphur recovery units	-	-	-	-	-	-	

Petroleum Refining Facilities	New-	150 SRU 300 FCCU	Oil: 460 (130 ng/J or 225 ppm) Gas: 320 (86 ng/J or 155 ppm)	-	<input type="checkbox"/> Vanadium:5 <input type="checkbox"/> Nickel: 1, <input type="checkbox"/> H ₂ S: 5 <input type="checkbox"/> Benzene: 9 µg/m ³ (fence line) <input type="checkbox"/> VOCs (600 µg/m ³ fence line)
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And any other parameters and processes as may be prescribed from time to time

The maximum permissible emission limits for stack emission for petroleum activities and operations under the upstream and midstream petroleum laws shall be determined by the Authority in consultation with the relevant lead agencies, taking into account best available technologies. The Ambient Air Quality limits set out in Schedule 2 shall apply to the general environment outside the stack.

Explanatory note:

*Class A compounds are those that may cause significant harm to human health and the environment. They include; acetaldehyde, acrylic acid, benzyl chloride, carbon tetrachloride, chlorofluorocarbons, ethyl acrylate, halons, maleic anhydride, 1,1,1 trichloroethane, trichloromethane, trichloroethylene, and trichlorotoluene.

**Class B compounds are organic compounds of less environmental impact than Class A compounds. They include; toluene, acetone and propylene.

“Existing facility” means a facility with an air pollution source constructed, in operation, installed or used on or before the coming into force of these Regulations.

“New facility” means a facility with an air pollution source constructed, in operation, installed or used after the coming into force of these Regulations.

SCHEDULE 4

Regulations 9(1) (3) (4), 11(2)(b), 13(2) and 25(d)

MAXIMUM PERMISSIBLE EMISSION LIMITS FOR VEHICULAR SOURCES

A. EMISSION LIMITS FOR PASSENGER CARS (GROUP B, D, D1, DE)

	Emission limits/g/km				
Engine type	CO	THC	HC+NO _x	NO _x	PM
Diesel	0.5	-	0.30	0.25	0.025
Gasoline (Petrol)	1.0	0.1	-	0.08	-

CO- Carbon monoxide, THC- Total hydrocarbon, HC- Hydrocarbon, NO_x- Nitrogen oxide compounds, PM-Particulate Matter

B. EMISSION LIMITS FOR LIGHT DUTY COMMERCIAL VEHICLES (GROUP BE, D, D1, DE)

Engine type	Reference Mass (RM) range/kg	Emission limits/g/km				
		CO	THC	HC+NO _x	NO _x	PM
Diesel	D, D1: RM≤750	0.50	-	0.30	0.25	0.025
	DE: RM>750	0.63	-	0.39	0.33	0.04
	BE: RM>750≤3,500	0.74	-	0.46	0.39	0.06
Gasoline (Petrol)	D, DE: RM≤750	1.0	0.1	-	0.08	-
	DE: RM>750	1.81	0.13	-	0.10	-
	BE: RM>750≤3,500	2.27	0.16	-	0.11	-

D. EMISSION LIMITS FOR HEAVY DUTY COMMERCIAL VEHICLES (GROUP C, C1, C1E, CE, D1E, F, G)

Gross Vehicle Weight (GVW)/kg	Emission limits/kg/kWh				Smoke limits/m ⁻¹
	CO	HC	NO _x	PM	
C, CE: ≤750kg	1.5	0.46	3.5	0.02	0.5
C1: >3,500≤7,500kg C1E, D1E:>750kg≤12,000kg	1.5	0.46	3.5	0.02	-

F. EMISSION LIMITS FOR MOTORCYCLES (A, A1) AND TRICYCLES (B1)

Category	Propulsion class/ Positive Ignition (PI) or Compression Ignition (CI)	Emission Limits/g/km		
		CO	THC	NO _x
Group A:	PI Hybrid	1.14	0.38	0.07
Group A1	PH Hybrid	1.14	0.17	0.09
Commercial Tricycles (Gasoline) B1	PI	2.0	0.55	0.25
	CI	1.0	0.1	0.55

Explanatory notes and emission inspection schedule:

Category	Description
A: Motorcycles	
A	Group A: motorcycles with a cubic capacity exceeding 125cm ³ and a power exceeding 11 Kw
A1	Group A1: motorcycles with a cubic capacity not exceeding 125 cm ³ and a power not exceeding 11 Kw (light motorcycles)
Group B:	
B	Motor vehicles, having a permissible maximum mass not exceeding 3,500 kg and not more than eight seats in addition to the driver's seat.
B	Motor vehicles of category B coupled to a trailer, the permissible maximum mass of which does not exceed 750 kg.

B	Motor vehicles of category B coupled to a trailer, the permissible maximum mass of which exceeds 750 kg but does not exceed the unladen mass of the motor vehicle, where the combined permissible maximum mass of the vehicles so coupled does not exceed 3,500 kg.
BI: Tricycles and quadricycles	
B1	Tricycles and quadricycles
Group BE:	
BE:	Motor vehicles of category B coupled to a trailer, the permissible maximum mass of which exceeds 750 kg and exceeds the unladen mass of the motor vehicle.
BE	Motor vehicles of category B coupled to a trailer, the permissible maximum mass of which exceeds 750 kg, where the combined permissible maximum mass of the vehicles so coupled exceeds 3,500 kg.
Group C:	
C	Motor vehicles, other than those in category D, having a permissible maximum mass exceeding 3,500 kg or motor vehicles of category C coupled to a trailer, the permissible maximum mass of which does not exceed 750 kg.
C1	Motor vehicles, with the exception of those in category D, the permissible maximum mass of which exceeds 3,500 kg but does not exceed 7,500 kg or motor vehicles of subcategory C1 coupled to a trailer, the permissible maximum mass of which does not exceed 750 kg.
C1E	Motor vehicles of subcategory C1 coupled to a trailer the permissible maximum mass of which exceeds 750 kg but does not exceed the unladen mass of the motor vehicle, where the combined permissible maximum mass of the vehicles so coupled does not exceed 12,000 kg.
CE	Motor vehicles of category C coupled to a trailer whose permissible maximum mass exceeds 750 kg.
Group D:	
D	Motor vehicles used for the carriage of passengers and having more than eight seats in addition to the driver's seat but not exceeding 30 seats in addition to the driver's seat or motor vehicles of category D coupled to a trailer, the permissible maximum mass of which does not exceed 750 kg.

D1	Motor vehicles used for the carriage of passengers and having more than 8 seats in addition to the driver's seat but not more than 16 seats in addition to the driver's seat, or motor vehicles of subcategory D1 coupled to a trailer, the permissible maximum mass of which does not exceed 750 kg.
D1E	Motor vehicles of subcategory D1 coupled to a trailer not used for the carriage of persons, the permissible maximum mass of which exceeds 750 kg but does not exceed the unladen mass of the motor vehicle, where the combined permissible maximum mass of the vehicles so coupled does not exceed 12,000 kg.
DE	Motor vehicles used for the carriage of passengers with seating accommodation exceeding 30 seats in addition to the driver's seat and motor vehicles of this subcategory category may be coupled to a trailer whose permissible maximum mass exceeds 750 kg.
Group F:	
F	Special machinery, including tractors and earth moving equipment including graders, bulldozers and compacters.
Group G:	
G	Agricultural tractors.

B: Emissions inspection schedule

<i>Vehicle category</i>	<i>Initial Inspection</i>	<i>Periodic Inspection (frequency)</i>	<i>Modification Inspection</i>	<i>On-road Random Inspection</i>
All categories	All	After every 12 Months	Yes	Yes

NOTE: All private passenger cars to be inspected periodically in intervals of not more than 2 years.

This schedule applies to inland, air and rail transport, as appropriate, in the absence of specific units.

The parameters of specific units for inland, air and rail transport under these standards shall be determined by the Authority in consultation with the lead agency, taking into account best available technologies.

SCHEDULE 5

Regulations 17(2), 18(a) and 25(d)

OCCUPATIONAL EXPOSURE EMISSION LIMITS

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Acetaldehyde	10	92	-
	Acetic acid	25	15 ppm	-
	Acetic anhydride	2.5	3 ppm	-
	Acetone	250	500 ppm	-
	Acetonitrile	20	102	0.002
	Acetylene tetrabromide	0.1	-	-
	a-Chloroacetophenone (Phenacyl chloride)	0.05	-	-
	Acrolein	0.05	0.12	-
	Acrylamide	0.03 (IFV)	-	-
	Acrylic acid	29	59	-
	Acrylonitrile	2 ppm	-	-
	Allyl alcohol	0.5 ppm	4 ppm	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Allyl chloride	1 ppm	2 ppm	-
	Allyl glycidyl ether (AGE)	0.2 ppm	10ppm	-
	Allyl propyl disulfide	0.5 ppm	3 ppm	-
	Alpha-Alumina Respirable fraction	5	-	-
	Alpha-Alumina Total dust	10	-	200ppm
	Alpha-Methyl styrene	10 ppm	100 ppm	-
	Aluminum alkyl compounds	2	-	-
	Aluminum Metal (as Al) respirable dust	5	-	-
	Aluminum Metal (as Al) total dust	10	-	-
	Aluminum oxides inhalable dust	4	-	0.1ppm
	Aluminum salts, soluble	2	-	0.1ppm
	Ammonia	25 ppm	35ppm	1ppm
	Ammonia, anhydrous	18	-	-
	Ammonium chloride, fume	10	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Ammonium sulfamate Respirable fraction	5	-	0.05ppm
	Ammonium sulfamate Total dust	10	-	-
	Ammonium sulphamidate	10	-	-
	2-Aminopyridine	0.5 ppm	-	-
	2-Amitrole	0.2	-	-
	Aniline	4	-	-
	Aniline and homologs	2 ppm	-	-
	Anisidine (o-,p-isomers)	0.5	-	-
	Antimony and compounds (as Sb)	0.5	-	-
	Antimony and compounds except stibine (as Sb)	0.5	-	-
	ANTU (alpha Naphthylthiourea)	0.3	-	-
	Arsenic and arsenic compounds except arsine (as As)	0.1	-	-
	Arsenic, inorganic compounds (as As) see 1910.1018	0.01	-	-
	Arsenic, organic compounds (as As)	0.2	-	-
	Arsine	0.005 ppm	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Asbestos	No safe limit	-	-
	Asphalt, petroleum fumes	5	-	-
	Azinhos-methyl	0.2	-	-
	Azodicarbonamide	1	-	-
	Barium sulfate inhalable dust	10	-	-
	Barium sulfate respirable dust	5	-	-
	Barium sulfate total dust	10	-	-
	Barium, soluble compounds (as Ba)	0.5	-	-
	Benomyl Respirable fraction	5	-	-
	Benomyl Total dust	10	-	-
	Benzene	0.5	1ppm	-
	Benzoyl peroxide	5	-	-
	Benzyl butyl phthalate	5	10	-
	Benzyl chloride	1ppm	7.9	0.1
	Beta-Chloroprene	1ppm	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Beta-Proprilactone; see 1910.1013	0.5ppm	-	-
	Bis(2-ethylhexyl) phthalate	5	-	-
	Bis(chloromethyl) ether	0.005	-	-
	Bis(Chloromethyl) ether; see 1910.1008	0.001ppm	-	-
	Bisphenol A	2	-	-
	Bornan-2-one	13	19	-
	Boron oxide Total dust	10	-	-
	Boron tribromide	-	10	-
	Boron trifluoride	0.1ppm	-	-
	Bromacil (ISO)	11	22	-
	Bromine	0.1ppm	0.2ppm	-
	Bromoethylene	4.4	-	-
	Bromoform	0.5ppm	-	-
	Bromomethane	20	59	0.3ppm
	But-2-yne-1,4-diol	0.5	-	-
	Buta-1,3-diene	2.2	-	-
	Butadiene (1,3-Butadiene)	1ppm	5ppm	5 [10-min]

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Butan-1-ol	-	154	-
	Butan-2-ol	308	462	
	Butan-2-one (methyl ethyl ketone)	600	899	-
	Butane	1450	1810	
	2-Butoxyethanol	20ppm	246	0.1ppm
	2-Butoxyethyl acetate	133	332	-
	2-Butanone (Methyl ethyl ketone)	200ppm	300	-
	Butyl acetate	724	966	-
	Butyl lactate	30	-	-
	Butyl mercaptan	0.5ppm	-	-
	2-sec-Butylphenol	31	-	-
	2-(2-Butoxyethoxy) ethanol	67.5	101.2	-
	Cadmium (as Cd); see 1910.1027	0.01	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Cadmium and cadmium compounds except cadmium oxide fume, cadmium sulphide and cadmium sulphide pigments (as Cd)	0.025	-	-
	Cadmium oxide fume (as Cd)	0.025	-	-
	Cadmium sulphide and cadmium sulphide pigments (respirable dust as Cd)	0.03	-	-
	Caesium hydroxide	2	-	-
	Calcium carbonate	10	-	-
	Calcium Carbonate (Respirable fraction)	5	-	-
	Calcium Carbonate (Total dust)	10	-	-
	Calcium cyanamide	0.5	1	-
	Calcium hydroxide	5	4	-
	Calcium hydroxide (Total dust)	5		-
	Calcium oxide	2	4	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Calcium silicate (inhalable dust)	10	-	-
	Calcium silicate (respirable dust)	4	-	-
	Calcium silicate (Respirable fraction)	5	-	-
	Calcium silicate (Total dust)	10	-	-
	Calcium sulphate (Respirable fraction)	5	-	-
	Calcium sulphate (Total dust)	10	-	-
	Camphor, synthetic	2ppm	3ppm	50ppm
	Captan (ISO)	5	15	-
	Carbaryl (Sevin)	0.5	-	200ppm
	Carbon black	3	7	6200ppm
	Carbon disulphide	15	-	-
	Carbon monoxide	25	232	-
	Carbon tetrachloride	6.4	32	-
	Cellulose (inhalable dust)	10	-	-
	Cellulose (respirable dust)	4	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Cellulose (Respirable fraction)	5	-	-
	Cellulose (Total dust)	10	-	-
	Chlorinated camphene	0.5	1	-
	Chlorinated diphenyl oxide	0.5	-	-
	Chlorine	0.1ppm	0.4ppm	-
	Chlorine dioxide	0.1ppm	0.84	-
	Chlorine trifluoride	-	-	5ppm
	Chloroacetaldehyde	-	3.3	-
	Chlorobenzene	4.7	14	-
	Chlorobromomethane	200ppm	-	-
	Chlorodifluoromethane	3590	-	-
	Chlorodiphenyl (42% Chlorine) (PCB)	1	-	-
	Chlorodiphenyl (54% Chlorine) (PCB)	0.5	-	-
	Chloroethane	134	-	-
	Chloroform (Trichloromethane)	2ppm	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Chloromethane	105	210	-
	Chloropicrin	0.1ppm	-	-
	Chlorosulphonic acid	1	-	-
	Chlorpyrifos (ISO)	0.2	0.6	-
	1-Chloro-1-nitropropane	2ppm	-	-
	1-Chloro-2,3-epoxypropane ((Epichlorohydrin))	1.9	5.8	-
	1-Chloro-4-nitrobenzene	1	2	-
	2-Chloro-6-(trichloromethyl) pyridine	10 (IFV)	20	-
	2-Chloro-6-(trichloromethyl) pyridine/(Respirable fraction)	5	-	-
	2-Chloro-6-(trichloromethyl)pyridine (Total dust)	10	20	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	2-Chloroethanol; See Ethylene chlorohydrin	-	3.4	-
	Chromium	0.5	-	-
	Chromium (II) compounds (as Cr)	0.5	-	-
	Chromium (III) compounds (as Cr)	0.03	-	-
	Chromium (VI) compounds	0.0002	0.0005	0.06 (2-hr)
	Chromium metal and insol. salts (as Cr)	0.5	-	-
	Clopidol	3 (IFV)	-	-
	Clopidol (Respirable fraction)	5	-	-
	Clopidol (Total dust)	10	20	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Coal tar pitch volatiles (benzene soluble fraction), anthracene, BaP, phenanthrene, acridine, chrysene, pyrene)	0.2	-	-
	Cobalt metal, dust, and fume (as Co)	0.02	-	-
	Coke oven emissions	0.15	-	1ppm (30-min)
	Copper Dusts and mists (as Cu)	1	-	-
	Copper Fume (as Cu)	0.2	-	-
	Cotton dust(l)	0.1	-	-
	Crag herbicide (Sesone) (Respirable fraction)	5	-	-
	Crag herbicide (Sesone) (Total dust)	10	-	-
	Cresol, all isomers	5 ppm	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Cryofluorane (INN)	7110	8890	-
	Cumene	50 ppm	250	-
	Cyanamide	1	-	-
	Cyanides (as CN)	5	-	-
	Cyanogen chloride	-	0.77	-
	Cyclohexane	100	1050	-
	Cyclohexanol	50	-	-
	Cyclohexanone	20	82	-
	Cyclohexene	20	-	-
	Cyclohexylamine	41	-	-
	Cyclopentadiene	75	-	-
	Decaborane	0.05	0.15ppm	-
	Demeton (Systox)	0.05	-	-
	Diacetone alcohol (4-Hydroxy-4-methyl-2-pentanone)	50	-	-
	Diacetyl	0.07	0.36	-
	Dialkyl 79 phthalate	5	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Diallyl phthalate	5	-	-
	Diatomaceous earth, natural, respirable dust	1.2	-	-
	Diazomethane	0.2	-	-
	Dibenzoyl peroxide	5	-	-
	Dibismuth tritelluride	10	20	-
	Diborane	0.1	-	-
	1,2-Dibromo-3-chloropropane (DBCP)	0.001	-	-
	1,2-Dibromoethane	3.9	-	-
	1,2-Dibromoethane(Ethylene dibromide)	3.9	-	-
	Diboron trioxide	10	20	-
	Dibutyl hydrogen phosphate	8.7	17	-
	Dibutyl phosphate	5	2ppm	-
	Dibutyl phthalate	5	10	-
	Dichloroacetylene	-	0.39	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Dichlorodifluoromethane	1000		-
	Dichlorodiphenyltrichloroethane (DDT)	1		-
	Dichloroethyl ether	5	10ppm	-
	Dichlorofluoromethane	43	-	-
	Dichloromonofluoromethane	10	-	-
	Dichlorotetrafluoroethane	1000	-	-
	Dichlorvos (DDVP)	0.1 (IFV)	-	-
	1,2-Dichlorobenzene	153	306	-
	1,1-Dichloroethane	50 ppm	-	-
	1,2-Dichloroethane	100 ppm	-	-
	1,2-Dichloroethylene	200 ppm	-	-
	1,2-Dichloroethylene, cis:trans isomers 60:40	806	1010	-
	1,1-Dichloro-1-nitroethane	2 ppm	-	-
	2,4-Dichlorophenoxy ethyl sulphate	-	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	1,3-Dichloro-5,5-dimethyl hydantoin	0.2	0.4	-
	1,4 Dichlorobenzene	12	60	-
	2,2'-Dichloro-4,4' methylene dianiline (MbOCA)	0.005	-	-
	2,4-D (Dichlorophen-oxyacetic acid)	10	20	-
	2,6-Di-tert-butyl-p-cresol	10	-	-
	1,4-Dioxane	73	-	-
	Dicyclohexyl phthalate	5	-	-
	Dicyclopentadiene	27	-	-
	Dicyclopentadienyl iron Respirable fraction	5	-	-
	Dicyclopentadienyl iron Total dust	10	-	-
	Diethyl ether	310	620	-
	Diethyl phthalate	5	10	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Diethyl sulphate	0.32	-	-
	Diethylamine	15	30	-
	2-Diethylaminoethanol	2 ppm	-	-
	Difluorodibromomethane	100 ppm	-	-
	Diglycidyl ether (DGE)	0.01 ppm	-	-
	Dihydrogen selenide(as Se)	0.07	0.17	-
	Diisobutyl ketone	25 ppm	-	-
	Diisobutyl phthalate	5	-	-
	Diisodecyl phthalate	5	-	-
	Diisononyl phthalate	5	-	-
	Diisooctyl phthalate	5	-	-
	Diisopropyl ether	1060	1310	-
	Diisopropylamine	21	-	-
	Dimethoxymethane	3160	3950	-
	Dimethyl acetamide	10 ppm	-	-
	Dimethyl ether	766	958	5 ppm
	Dimethyl phthalate	5	10	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Dimethyl sulphate	0.1 ppm	-	-
	Dimethyl sulphate	0.26	-	-
	Dimethyl-1,2-dibromo-2,2-dichloroethylphosphate	0.1 (IFV)	-	-
	Dimethylamine	3.8	11	-
	Dimethylaniline (N,N-Dimethylaniline)	5 ppm	10ppm	0.5 ppm
	Dimethylformamide	5 ppm	-	1 ppm
	Dimethylphthalate	5	-	-
	2,6-Dimethylheptan-4-one	148	-	-
	1,1-Dimethylhydrazine	0.01 ppm	-	-
	2-Dimethylaminoethanol	7.4	22	-
	Dinitrobenzene (all isomers)	0.15 ppm	-	-
	Dinitrobenzene, all isomers	1	3.5	-
	Dinitro-o-cresol	0.2 (IFV)	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Dinitrotoluene	0.15	-	5 ppm (10 minutes per day)
	Dinonyl phthalate	5	-	-
	Dioxane (Diethylene dioxide)	0.28 ppm	-	-
	Diphenyl (Biphenyl)	0.2 ppm	-	-
	Diphenyl ether	7	14	-
	Diphenylamine	10	20	-
	Diphosphorus pentasulphide	1	2	-
	Dipropylene glycol methyl ether	100 ppm	150ppm	-
	Diquat dibromide (ISO)	0.5	1	-
	Di-sec octyl phthalate (Di-(2-ethylhexyl) phthalate)	5	10	-
	Disodium disulphite	5	-	-
	Disodium tetraborate, anhydrous	1	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Disodium tetraborate, decahydrate	5	-	-
	Disodium tetraborate, pentahydrate	1	-	-
	Disphosphorus pentoxide	1	2	-
	Disulphur dichloride	-	5.6	-
	6,6'-Di-tert-butyl-4,4'-thiodi-m-cresol	10	20	-
	Diuron (ISO)	10	-	-
	Emery inhalable dust	10	-	-
	Emery respirable dust	4	-	-
	Emery total dust	10	-	-
	Enflurane	383	-	-
	Epichlorohydrin	0.05	-	-
	Ethyl p-nitrophenyl benzenethionophosphonate	0.1 (IFV)	-	-
	2-Ethoxyethanol	8	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Ethane-1,2-diol particulate	10	-	-
	Ethane-1,2-diol vapour	52	104	-
	Ethanethiol	1.3	5.2	-
	Ethanol	1920	-	-
	Ethanolamine	3 ppm	6ppm	-
	2-Ethoxyethanol (Cellosolve)	5 ppm	-	-
	2-Ethoxyethyl acetate	11	-	-
	2-Ethoxyethyl acetate (Cellosolve acetate)	5 ppm	-	-
	2-ethylhexan-1-ol	5.4	-	-
	2-Ethylhexyl chloroformate	8	-	-
	Ethyl acetate	400 ppm	1468	-
	Ethyl acrylate	5 ppm	42	0.5 ppm
	Ethyl alcohol (Ethanol)	1000 ppm	1000ppm	1000 ppm
	Ethyl amyl ketone (5-Methyl-3-heptanone)	25 ppm	-	0.1 ppm

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Ethyl benzene	5 ppm	30ppm	-
	Ethyl bromide	5 ppm	-	-
	Ethyl butyl ketone (3-Heptanone)	50 ppm	75ppm	-
	Ethyl chloride	100 ppm	-	-
	Ethyl chloroformate	4.5	-	-
	Ethyl cyanoacrylate	-	1.5	-
	Ethyl ether	400 ppm	500ppm	-
	Ethyl formate	100 ppm	100ppm	-
	Ethyl mercaptan	0.5 ppm	-	-
	Ethyl silicate	10	-	-
	Ethylamine	3.8	11	-
	Ethylbenzene	441	552	-
	Ethylene glycol dimitate	0.05 ppm	0.1	-
	Ethylene oxide	1 ppm	5ppm	-
	Ethylenediamine	10 ppm	-	-
	Ethyleneimine	0.05 ppm	0.1ppm	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	4-Ethylmorpholine	24	96	-
	Ferbam Total dust	5	-	-
	Ferrous foundry inhalable dust	10	-	-
	Ferrous foundry respirable dust	4	-	-
	Ferrovandium dust	1	3	-
	Flour dust	10	30	-
	Fluoride (inorganic as F ⁻)	2.5	-	-
	Fluorine	0.1 ppm	1.6	0.03 ppm
	Formaldehyde	0.1 ppm	0.3 ppm	-
	Formamide	37	56	-
	Formic acid	5 ppm	10 ppm	2
	Fume (as V ₂ O ₅)	0.05	-	-
	Furfural	0.2 ppm	-	-
	Furfuryl alcohol	10 ppm	15 ppm	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	2-Furaldehyde (furfural)	8	20	-
	Germane	0.64	1.9	-
	Glutaraldehyde	0.2	0.2	-
	Glycerin (mist) Respirable fraction	5	-	-
	Glycerin (mist) Total dust	10	-	-
	Glycerol trinitrate	0.095	0.19	-
	Glycerol (mist)	10	10	-
	Glycidol	2 ppm	2ppm	-
	Grain dust	4	4	-
	Graphite inhalable dust	10	10	-
	Graphite (respirable)	4	4	-
	Graphite(synthetic respirable fraction)	2	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Graphite(synthetic Total dust)	10	-	-
	Gypsum (Respirable fraction)	5	-	-
	Gypsum (Total dust)	10	-	-
	Gypsum (inhalable dust)	10	-	-
	Hafnium	0.5	-	-
	Halothane	82	-	-
	Hardwood dust (inhalable fraction)	3	-	-
	Heptan-2-one	237	475	-
	Heptan-3-one	166	475	-
	Heptane (n-Heptane)	400 ppm	440ppm	5 ppm
	Hexachloroethane	1 ppm	-	-
	Hexachloronaphthalene	0.2	-	-
	Hexan-2-one	21	-	-
	Hexone (Methyl isobutyl ketone)	20 ppm	75ppm	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	1,6-Hexanolactam dust and vapour	10	20	-
	1,6-Hexanolactam dust only	1	3	0.002
	2-Hexanone (Methyl n-butyl ketone)	1 ppm	10ppm	-
	2-Hydroxypropyl acrylate	2.7	-	-
	Hydrazine	0.01 ppm	0.13	50 ppm
	Hydrogen bromide		10	-
	Hydrogen chloride	0.3 ppm	8	-
	Hydrogen cyanide	1	5	-
	Hydrogen fluoride (as F)	1.5	2.5	-
	Hydrogen peroxide	1.4	2.8	-
	Hydrogen selenide (as Se)	0.05 ppm	-	-
	Hydrogen sulphide	7	14	-
	Hydroquinone	0.5	-	-
	4-Hydroxy-4methylpentan-2-one	241	362	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Indene	48	-	-
	Indium and compounds (as In) inhalable dust	0.1 4	0.3 -	- -
	Insoluble Compounds - Total dust	10	-	-
	Iodine	0.01 ppm (IFV)	1.1	-
	Iodoform	9.8	16	0.05 (IHL)
	Iodomethane	12	-	-
	Iron oxide	5	-	-
	Iron oxide, fume (as Fe)	5	10	-
	Iron salts (as Fe)	1	2	-
	Isoamyl acetate	50 ppm	100ppm	-
	Isoamyl alcohol (primary and secondary)	100 ppm	125ppm	-
	Isobutyl acetate	150 ppm	903	-
	Isobutyl alcohol	50 ppm		-
	Isocyanates, all (as -NCO)	0.02	0.07	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Isoflurane	383	-	-
	Isoocetyl alcohol (mixed isomers)	271	-	-
	Isopentane	1800	-	-
	Isophorone	4 ppm	-	-
	Isopropyl acetate	250 ppm	849	-
	Isopropyl alcohol	200 ppm	400ppm	-
	Isopropyl chloroformate	5.1	-	-
	Isopropyl ether	250 ppm	310ppm	-
	Isopropyl glycidyl ether (IGE)	50 ppm	75ppm	-
	Isopropylamine	5 ppm	10ppm	-
	2,2'-Iminodi(ethylamine)	4.3	-	-
	Kaolin Total dust	10	-	-
	Kaolin respirable dust	2	-	-
	Ketene	0.5ppm	2.6	-
	L.P.G. (Liquified petroleum gas)	1000 ppm	-	-
	Lead inorganic (as Pb);	0.05	-	-
	Limestone (Respirable fraction)	5	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Limestone (Total dust)	10	-	-
	Limestone (total inhalable)	10	-	-
	Liquefied petroleum gas	1750	2180	-
	Lithium hydride	0.025	0.02	1000 ppm
	Lithium hydroxide		1	-
	Magnesite Inhalable	10	-	-
	Magnesite Total dust	10	-	-
	Magnesium oxide fume - Inhalable	10	-	-
	Magnesium oxide fume - respirable	4	-	-
	Magnesium oxide fume - Total Particulate	10	-	-
	Malathion - Total dust	10	-	350 ppm
	Maleic anhydride	0.01	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Manganese compounds (as Mn)	-	3	-
	Manganese compounds (as Mn) inhalable	0.2	-	-
	Manganese compounds (as Mn) respirable	0.05	-	-
	Manganese fume (as Mn)	0.2	3	-
	Marble inhalable fraction	10	-	0.04 ppm
	Marble Respirable fraction	5	-	-
	Marble (Total dust)	10	-	-
	Mercaptoacetic acid	3.8	-	-
	Mercury and divalent inorganic compounds including mercuric oxide and mercuric chloride (measured as mercury)	0.02	-	-
	Mesityl oxide	15 ppm	25ppm	-
	Methacrylic acid	72	143	0.5 ppm

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Methacrylonitrile	2.8	-	-
	Methanethiol	1	-	-
	Methanol	266	333	0.2
	Methoxychlor - (Total dust)	10	-	-
	2-Methoxyethanol	3	-	-
	(2-methoxymethyl)ethoxy propanol	308	-	40 ppm
	2-Methoxyethyl acetate	5	-	-
	2-Methoxyethyl acetate (Methyl cellosolve acetate)	0.1 ppm	-	-
	1-Methoxypropan-2-ol	375	560	-
	1-Methoxypropyl acetate	274	548	-
	2-(2-Methoxyethoxy) ethanol	50.1	-	-
	Methyl acetylene (Propyne)	1000	-	-
	Methyl acetylene propadiene mixture (MAPP)	1000	1250ppm	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Methyl acrylate	2ppm	-	-
	Methyl alcohol	200	250ppm	-
	Methyl bromide	1	20ppm	-
	Methyl chloride	100	-	-
	Methyl chloroform (1,1,1-Trichloro-ethane)	350	450ppm	-
	Methyl cyanoacrylate	-	1.4	-
	2-Methylcyclohexanone	233	350	-
	Methyl ethyl ketone peroxides (MEKP)		1.5	-
	Methyl formate	-	250	-
	Methyl hydrazine (Monomethylhydrazine)	0.01	-	-
	Methyl iodide	2	-	-
	Methyl isoamyl ketone	20 ppm	50ppm	-
	Methyl isobutyl carbinol	20 ppm	40ppm	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Methyl isocyanate	0.02	0.06ppm	-
	Methyl mercaptan	0.5	-	-
	Methyl methacrylate	50	416	-
	Methyl n- amyl ketone	50	-	-
	2-Methylpentane-2,4-diol	123	123	-
	2-Methylpropan-1-ol	154	231	50 ppm
	2-Methylpropan-2-ol	308	462	-
	Methylal (Dimethoxy-methane)	1000	-	-
	Methylamine	5	15ppm	-
	3-Methylbutan-1-ol	366	458	-
	4,4'-Methylenedianiline	0.08	-	-
	Methylcyclohexane	400	-	-
	Methylcyclohexanol	50	356	-
	Methylene bisphenyl isocyanate (MDI)	0.05	-	-
	Methyl-tert-butyl-ether	183.5	367	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	5-Methylheptan-3-one	53	107	-
	5-Methylhexan-2-one	95	475	-
	4-Methylpentan-2-ol	106	170	-
	4-Methylpentan-2-one	208	416	-
	Mica Total inhalable	10	-	-
	Molybdenum compounds (as Mo) insoluble compounds	10	20	-
	Molybdenum compounds (as Mo) soluble compounds	5	10	-
	Monochloroacetic acid	1.2	-	-
	Monomethyl aniline	0.5	-	-
	Morpholine	20	72	-
	N,N-Dimethylacetamide	36	-	-
	N,N-Dimethylaniline	25	50	-
	N,N-Dimethylethylamine	30	46	0.05 ppm
	N,N-Dimethylformamide	15	-	-
	n-Amyl acetate	50	100ppm	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Naphtha (Coal tar)	100 ppm	-	-
	Naphthalene	0.1 ppm	15ppm	-
	n-Butyl acrylate	5	26	-
	n-Butyl alcohol	20 ppm	-	-
	n-Butyl chloroformate	5.7	-	-
	n-Butyl glycidyl ether (BGE)	3	-	-
	n-Butyl-acetate	150 ppm	200ppm	-
	Neopentane	1800	-	-
	N-Ethylmorpholine	5	-	-
	n-Heptane	2085	-	-
	n-Hexane	50	-	-
	Nickel carbonyl (as Ni)	0.00 ppm	-	-
	Nickel, metal and insoluble compounds (as Ni)	0.5	-	-
	Nickel, soluble compounds (as Ni)	0.1	-	-
	Nicotine	0.075 ppm	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Nitric acid	2	4ppm	-
	Nitric oxide	25	-	-
	Nitrobenzene	1	-	-
	Nitroethane	100	-	-
	Nitrogen dioxide	0.2ppm	1.91	-
	Nitrogen monoxide *	30	-	-
	Nitrogen trifluoride	10	-	-
	Nitroglycerin	0.05	-	-
	Nitromethane	2 ppm	381	-
	Nitrotoluene (all isomers)	2 ppm	-	-
	Nitrotrichloromethane; see Chloropicrin	-	-	385 ppm
	Nitrous oxide	183	-	-
	1-Nitropropane	25	-	-
	2-Nitropropane	10	-	5 ppm

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	n-Methyl-2-pyrrolidone	40	80	-
	N-Methylaniline	2.2	-	-
	N-Nitrosodimethylamine; see 1910.1016	-	-	0.05ppm
	n-Propyl acetate	200 ppm	1060	0.1 ppm
	n-Propyl alcohol	100 ppm	-	-
	n-Propyl nitrate	25 ppm	-	-
	Octachloronaphthalene	0.1	-	-
	Octane	300	-	-
	o-Dichlorobenzene	25	306	-
	Oil mist, mineral	5	10	-
	o-Methylcyclohexanone	50	75	-
	Organo (alkyl) mercury	0.01	-	-
	Orthophosphoric acid	1	-	-
	Osmium tetroxide (as Os)	0.002	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Osmium tetroxide (as Os)	0.0016	0.0047	-
	o-Toluidine	2	-	-
	Oxalic acid	1	2	610 ppm
	2,2'-Oxydiethanol	101	-	-
	Ozone	0.05	0.3	-
	Paracetamol, (inhalable dust)	10	-	1800
	Paraffin wax, fume	2	6	15.6
	Paraquat dichloride (ISO), respirable dust	0.08	-	-
	Paraquat, respirable dust	0.05	-	-
	Parathion	0.05 (IFV)	-	-
	Particulates Not Otherwise Regulated (PNOR)(i) Respirable fraction	5	-	-
	Particulates Not Otherwise Regulated (PNOR)(i) (Total dust)	10	-	1 ppm
	PCB; see Chlorodiphenyl (42% and 54% chlorine)	-	-	0.14 ppm
	p-Dichlorobenzene	10	110	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Pentaborane	0.005	0.015	0.2 ppm
	Pentacarbonyliron (as Fe)	8	-	0.15 ppm
	Pentachloronaphthalene	0.5 (IFV)	-	-
	Pentaerythritol Respirable fraction	5	-	-
	Pentaerythritol (Total dust)	10	-	-
	Pentaerythritol inhalable dust	10	20	-
	Pentaerythritol respirable dust	4	-	-
	Pentan-2-one	716	895	-
	Pentan-3-one	716	895	-
	Pentane	600ppm	-	-
	2-Pentanone (Methylpropyl ketone)	200 ppm	150	0.1
	2-Phenylpropene	246	-	5.6 (15 min)
	2-Pyridylamine	2	-	0.5 ppm
	Pentyl acetates (all isomers)	270	-	-
	Perchloromethyl mercaptan	0.1 ppm	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Perchloryl fluoride	3 ppm	6	-
	Petroleum distillates (Naphtha) (Rubber Solvent)	1600	-	-
	Phenol	5 ppm	-	-
	Phenyl ether, vapor	1 ppm	-	-
	Phenyl glycidyl ether (PGE)	0.1 ppm	-	-
	Phenylhydrazine	0.1 ppm	10	-
	Phorate (ISO)	0.05	-	-
	Phosdrin (Mevinphos)	0.01 (IFV)	0.03	-
	Phosgene	0.08	-	-
	Phosgene (Carbonyl chloride)	0.1 ppm	-	-
	Phosphine	0.05 ppm	-	-
	Phosphoric acid	1	-	-
	Phosphorus (yellow)	0.1	-	-
	Phosphorus pentachloride	0.1 ppm	-	-
	Phosphorus pentasulphide	1m	3	-
	Phosphorus trichloride	0.2 ppm	0.5ppm	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Phosphorus, yellow	0.1	-	-
	Phosphoryl trichloride	1.3	3.8	-
	Phthalic anhydride	0.002 (IFV)	0.005	-
	Picloram (ISO)	10	20	-
	Picloram Respirable fraction	5	-	-
	Picloram (Total dust)	10	-	-
	Picric acid	0.1	0.3	-
	Pindone (2-Pivalyl-1,3-indandione)	0.1	-	-
	Piperazine	0.1	0.3	-
	Piperazine dihydrochloride	0.1	0.3	-
	Piperidine	3.5	-	-
	Plaster of paris inhalable fraction	10	-	-
	Plaster of paris Respirable fraction	5	-	-
	Plaster of paris Total dust	10	-	-
	Platinum (as Pt) Metal	1	-	-
	Platinum (as Pt) Metal - Soluble Salts	0.002	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Platinum compounds, soluble (except certain halogeno-Pt compounds) (as Pt)	0.002	-	-
	Platinum metal	5	-	-
	p-Nitroaniline	3	-	-
	p-Nitrochlorobenzene	0.1 ppm	-	-
	Polyvinyl chloride inhalable dust	10	-	-
	Polyvinyl chloride respirable dust	4	-	-
	Portland cement Inhalable dust	10	-	-
	Portland cement Respirable dust	4	-	-
	Potassium cyanide (as cyanide)	1	5	-
	Potassium hydroxide	-	2	-
	p-Phenylene diamine	0.1	-	-
	p-Phenylenediamine	0.1	-	-
	Prop-2-yn-1-ol	2.3	7	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Propan-1-ol	500	625	-
	Propan-2-ol	999	1250	-
	Propane	1000 ppm	-	-
	Propane-1,2-diol particulates	10	-	-
	Propane-1,2-diol total vapour	474	-	-
	Propionic acid	31	46	-
	Propoxur (ISO)	0.5	2	-
	Propranolol	2	6	-
	Propylene dichloride	10	110ppm	-
	Propylene imine	0.2 ppm	0.4	-
	Propylene oxide	2 ppm	-	-
	p-tert-Butyltoluene	1 ppm	20ppm	-
	Pyrethrum	5	-	-
	Pyrethrum (purified of sensitising lactones)	1	-	-
	Pyridine	1ppm	33	-
	Pyrocatechol	23	-	-
	Quartz	0.025	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Quinone	0.1 ppm	-	-
	Refractory ceramic fibres and special purpose fibres - total inhalable dust	5	-	-
	Resorcinol	46	92	-
	Respirable dust and fumes (as V ₂ O ₃)	0.05	-	-
	Rhodium (as Rh) metal fume and dust	0.1	0.3	-
	Rhodium (as Rh) soluble salts	0.001	0.003	-
	Rhodium (as Rh), metal fume and insoluble compounds	0.1	-	-
	Rhodium (as Rh), soluble compounds	0.001	-	-
	Ronnel	5 (IFV)	-	-
	Rosin-based solder flux fume	-	0.15	-
	Rotenone	5	-	-
	Rotenone (ISO)	5	10	-
	Rouge inhalable fraction	10	-	-
	Rouge Respirable fraction	4	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Rouge Total dust	10	-	-
	Rouge Respirable	4	-	-
	Rouge Total inhalable	10	-	-
	Rubber fume	0.6	-	-
	Rubber process dust	6	-	-
	sec-Butyl acetate	200 ppm	1210	-
	sec-Butyl alcohol	100 ppm	150	-
	sec-Hexyl acetate	50 ppm	-	-
	Selenium and compounds, except hydrogen selenide (as Se)	0.1	-	-
	Selenium compounds (as Se)	0.2	-	-
	Selenium hexafluoride (as Se)	0.05 ppm	-	-
	Silane	0.67	1.3	-
	Silica, amorphous Inhalable dust	6	-	-
	Silica, amorphous Respirable dust	2.4	-	-
	Silica, fused respirable dust	0.08	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Silica, respirable crystalline (respirable fraction)	0.1	-	-
	Silicon carbide (not whiskers) total inhalable	10	-	-
	Silicon carbide (not whiskers) respirable	4	-	-
	Silicon carbide Respirable fraction	3	-	-
	Silicon carbide Total dust	10	-	-
	Silicon inhalable dust	10	-	-
	Silicon respirable dust	4	-	-
	Silver (soluble compounds as Ag)	0.01	-	-
	Silver, metal and soluble compounds (as Ag)	0.01	-	-
	Silver, metallic	0.1	-	-
	Sodium 2-compounds	10	20	-
	Sodium azide (NaN ₃)	0.1	0.3	-
	Sodium cyanide (as cyanide)	1	5	-
	Sodium fluoroacetate	0.05	0.15	-
	Sodium hydrogen sulphite	5	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Sodium hydroxide	-	2	-
	Softwood dust	5	-	-
	Starch Respirable fraction	5	-	-
	Starch Total dust	10	-	-
	Starch respirable	4	-	-
	Starch total inhalable	10	-	1800(15-min)
	Stibine	0.1 ppm	-	-
	Stoddard solvent	100 ppm	-	-
	Strychnine	0.15	-	-
	Styrene	430	1080	-
	Subtilisins	0.00004	-	-
	Sucrose Respirable fraction	5	20	-
	Sucrose Total dust	10	20	0.01 ppm
	Sulfotep (ISO)	0.1	-	-
	Sulphur hexafluoride	1000 ppm	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Sulphuric acid	0.1	3	-
	Sulphuryl fluoride	5 ppm	10	-
	Sulphur dioxide	1.3	2.7	-
	Sulphur hexafluoride	6070	7590	-
	Sulphuric acid (mist)	0.05	-	-
	Sulphuryl difluoride	21	42	0.5 ppm
	Talc, respirable dust	1	-	-
	Tantalum (total)	5	10	-
	TEDP (Sulfotep)	0.1	-	-
	Tellurium and compounds (as Te)	0.1	-	-
	Tellurium and compounds, except hydrogen telluride (as Te)	0.1	-	-
	Tellurium hexafluoride (as Te)	0.02 ppm	-	-
	Temephos	1	-	-
	Temephos Respirable fraction	5	-	-
	Temephos Total dust	10	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	TEPP (Tetraethyl pyrophosphate)	0.01 (IFV)	-	-
	Terphenyl, hydrogenated	19	48	-
	Terphenyls, all isomers	-	4.8	-
	tert-Butyl acetate	966	1210	-
	tert-Butyl alcohol	100 ppm	150ppm	-
	Tertiary-butyl-methylether	183.5	367	-
	Tetracarbonylnickel (as Ni)	-	0.24	0.02 ppm
	Tetrachloroethylene	138	275	-
	Tetrachloronaphthalene	2 mg/m3	-	-
	Tetraethyl lead (as Pb)	0.075	-	-
	Tetraethyl orthosilicate	44	-	-
	Tetrahydrofuran	50	100ppm	-
	Tetramethyl lead, (as Pb)	0.075	-	2000 ppm
	Tetramethyl succinonitrile	0.5 (IFV)	-	1 ppm
	Tetranitromethane	0.005 ppm	-	-
	Tetrasodium pyrophosphate	5	-	-
	1,1,1,2-Tetrachloro-2,2-difluoroethane	100 ppm	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	1,1,1,2-Tetrafluoroethane (HFC 134a)	4240	-	-
	1,1,2,2-Tetrabromoethane	7.2	-	-
	1,1,2,2-Tetrachloro-1,2-difluoroethane	50 ppm	-	-
	1,1,2,2-Tetrachloroethane	1 ppm	-	-
	1,1,1-Trichloroethane	555	-	-
	1,1,2-Trichloro-1,2,2-trifluoroethane	1000 ppm	1250ppm	-
	1,1,2-Trichloroethane	10 ppm	-	-
	1,2,3-Trichloropropane	0.005	-	-
	Tetryl (2,4,6-Trinitrophenylmethylinitramine)	1.5	-	-
	Thallium, soluble compounds (as Tl)	0.1	-	-
	Thiram	5	-	-
	Tin compounds, inorganic except SnH4, (as Sn)	2	4	-
	Tin compounds, organic, except Cyhexatin (ISO), (as Sn)	0.1	0.2	-
	Tin, inorganic compounds (except oxides) (as Sn)	2	-	-
	Tin, organic compounds (as Sn)	0.1	0.2	-
	Titanium dioxide - Total dust	10	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Titanium dioxide Respirable	4	-	-
	Titanium dioxide Total inhalable	10	-	-
	4,4'-Thiobis (6-tert, Butyl-m-cresol)	1 (IHL)	-	-
	4,4'-Thiobis (6-tert, Butyl-m-cresol) Respirable fraction	5	-	-
	4,4'-Thiobis (6-tert, Butyl-m-cresol) Total dust	10	-	-
	Toluene	191	384	-
	Toluene-2,4-diisocyanate (TDI)	0.001 ppm (IFV)	0.005	-
	Tributyl phosphate	0.2 ppm	-	-
	Tributyl phosphate, all isomers	5	5	-
	Trichloroethylene	550	850	-
	Trichloronaphthalene	5	-	-
	Trichloronitromethane	0.68	2.1	-
	Tridymite	0.05	-	-
	Triethylamine	8	1ppm	-
	Trifluorobromomethane	1000 ppm	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Triglycidyl isocyanurate (TGIC)	0.1	-	-
	Trimellitic anhydride	0.04	0.12	-
	Trimethyl phosphite	10	-	-
	Trimethylbenzenes, all isomers or mixtures	125	-	-
	2,4,5-T (2,4,5-tri-chlorophenoxyacetic acid)	10	-	1 ppm (15 Min)
	2,4,6-Trinitrotoluene	0.5	-	-
	Triorthocresyl phosphate	0.02 (IFV)	-	-
	Tri-o-tolyl phosphate	0.1	0.3	-
	Triphenyl phosphate	3	6	-
	Tripoli (as quartz)	0.025	-	-
	Tungsten and compounds (as W) soluble compounds	1	3	-
	Tungsten and compounds insoluble compounds	5	10	-
	Turpentine	20 ppm	850	-
	Vanadium	0.05 (IHL)	-	-
	Vanadium pentoxide	0.05	-	-
	Vegetable oil mist Respirable fraction	5	-	-

No.	Substance	Long Term Exposure Limit 8 - hour TWA Reference Period	Short Term Exposure Limit (ST) (15 minute Reference Period)	Ceiling
	Vegetable oil mist Total dust	10	-	-
	Vinyl acetate	17.6	35.2	-
	Vinyl chloride;	1 ppm	-	0.05
	Vinyl toluene	50 ppm	100ppm	-
	Vinylidene chloride	8	20	-
	Warfarin	0.1	-	-
	Wool process dust	10	-	-
	Xylene, o-,m-,p- or mixed isomers	220	441	-
	Xylidine	0.5 ppm	-	-
	Yttrium	1	-	-
	Zinc chloride fume	1	2	-
	Zinc distearate	10	20	-
	Zinc distearate inhalable dust	4	-	-
	Zinc oxide fume	2	10	300 ppm
	Zinc oxide Respirable fraction	2	10	-
	Zinc oxide Total dust	10	-	-
	Zirconium compounds (as Zr)	5	10	-

Explanatory notes

- The Carc, Sen and Sk notations are not exhaustive
- TWA reference period – is Time-weighted Average reference period
- IFV – Inhalable fraction of vapour
- Default units are mg/m³
- PPM is used where mg/m³ is not the default
- For the avoidance of doubt, prohibited chemicals will not be regulated.
- C: Ceiling of maximum allowable concentration.

SCHEDULE 6

Regulations 20(1), 24(f), 25(d) and 28(1)

INDOOR AIR QUALITY STANDARDS

No.	Pollutant	Averaging time	Concentration (mg/m ³)
	Asbestos	-	No safe level of exposure.
	Benzene	-	No safe level of exposure.
	Carbon monoxide	15 minutes	100
		1-hour	35
		8-hours	10
		24-hour	7
	Formaldehyde	30-minutes	0.1
	Naphthalene	Annual average	0.01
	Nitrogen dioxide	1-hour	200 µg/m ³
		24-hours	30 µg/m ³
		Annual average	40 µg/m ³
	Ozone	8-hours	100 µg/m ³
	PM ₁₀	24-hours	60 µg/m ³
		Annual average	40 µg/m ³
	PM _{2.5}	24-hours	35 µg/m ³
		Annual average	25 µg/m ³
	Polycyclic Aromatic Hydrocarbon (PAH)	-	No safe level of exposure.
	Radon	-	100 Bq/m ³
	Sulphur dioxide SO ₂	10 minutes	500 µg/m ³
		1-hour	50 µg/m ³
		24-hours	20 µg/m ³
	Tetrachloroethylene	Annual average	0.25
	Trichloroethylene	Annual average	4.3 × 10–7 per µg/m ³

SCHEDULE 7

Regulations 29(1) and 35(1)

SHORT TERM AIR QUALITY ACTION PLAN

1. Location of excess pollution—
 - (a) District/area
 - (b) City/town (*map*)
 - (c) Measuring station (*map, geographical co-ordinates*)

2. General information—
 - (a) Type of zone (*e.g. city, industrial, residential area, whether control area or not*)
 - (b) Estimate of the polluted area (km²) and of the number of people exposed to the pollution.....
 - (c) Useful climatic data
 -
 -
 - (d) Relevant data on topography
 -
 -
 - (e) Sufficient information on the type of targets to be monitored in the area
 -
 -

3. Responsible authorities, (*names and addresses of persons responsible for the development and implementation of air quality plans*)
-

- 4 Nature and assessment of pollution, including—
 - (a) Concentrations observed over previous years (*before the implementation of the improvement measures*)
.....
.....
 - (b) Concentrations measured since the beginning of the project
.....
.....
 - (c) Techniques used for the assessment
.....
.....

- 5. Origin of pollution, including—
 - (a) List of the main emission sources responsible for the pollution (*map, if necessary*)
.....
.....
 - (b) Total quantity of emissions from these sources (*tonnes per year*)
.....
.....
 - (c) Information on pollution originating from other regions or areas
.....
.....

- 6. Analysis of the status of pollution, including—
 - (a) Details of factors responsible for excess emissions beyond the prescribed value or target value
.....
.....
 - (b) Details of appropriate measures for improvement of air quality
.....
.....

7. Details of measures to reduce air pollution and to improve air quality—
- (a) Local, national and regional measures *(as appropriate)*
.....
.....
 - (b) Observed impacts of the measures
.....
.....
 - (c) Schedule for implementation
.....
.....
 - (d) Estimated time required for improvement of air quality and to attain the objectives of this paragraph *(facilities with the greatest amount of pollution may be given more time to comply as compared to facilities where pollution is less, but compliance measures may be stricter)*.
.....
.....
8. Details of measures planned or being researched on for the long term management of air quality.
.....
.....
9. Any other information as the Authority may deem necessary.
.....
.....

SCHEDULE 8

Regulation 37(1)

ANNUAL EMISSIONS COMPLIANCE REPORT

- 1. Name of facility.....
- 2. TIN.
- 3. Address
 - (a) P.O. Box.....
 - (b) Telephone No.
 - (c) Fax.....
 - (d) Email:.....
- 4. Name of contact person.....
- 5. Designation of contact person
- 6. Location of the facility (*GPS coordinates, plot number, village, parish, subcounty/town council, division, city/district*)
.....
.....
- 7. Type of pollutants
- 8. Source of emissions (*include a map and GPS coordinates*)
.....
.....
- 9. Test methods for each parameter
.....
.....
- 10. Emission concentrations (*mg/m³*)
.....
.....
- 11. Emission control measures and technology
.....
.....

12. Whether emission limits have been exceeded
Yes/No. (*Tick as appropriate*).

If yes, state the parameters exceeded (*including indoor air standards*)
and by how much

.....
.....

13. First observation of the excess emissions.

(a) Period _____ date _____ 20__

14. Cause and duration of the excess emissions.

(a) Cause

(b) Duration of excess emissions: _____ hours ____ days _____
months.

15. Source(s) that caused the excess emissions.

(a)

(b)

16. Estimated rate of emissions from specific sources (*expressed in the
units of applicable emission limits*).

.....
.....

17. Areas and persons affected by the pollution

.....
.....

18. Proposed corrective actions and schedule to correct the conditions
causing the excess emissions.

(a)

(b)

19. Status of compliance attained after implementation of corrective
actions

.....
.....

Signaturedate20.....

Position



Official use only

Observations/recommendations/actions required

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

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

Signature..... (Seal)

SCHEDULE 9

Regulations 42(2) and 50(2)

FORMS

FORM 1

APPLICATION FOR AIR POLLUTION CONTROL LICENCE

(To be completed in triplicate)

Application Reference No _____

Licence No _____ *(in case of renewal)*

Part A: General

1. Name, physical and postal address and legal status of the applicant
(whether individual, partnership or company)

2. Brief description of the facility, its location and the processes or activities undertaken

3. Description of the technical competence and experience of the applicant including the personnel

4. Demonstration of how all reasonably practicable and appropriate measures to control emissions within acceptable limits have been taken to no avail.

5. Description of best environmental practices to be used at the facility or operations

6. Description of the best available technologies and equipment to be acquired, including any modifications in the technology required
-
-
7. Description of emitting equipment
-
-
8. Type of pollutants
- (a) _____
- (b) _____
9. Normal operating emission levels (expected emission levels, nature and concentrations of actual emissions)
- (a) _____
- (b) _____
10. Emissions levels at start-up, maintenance and shut-down of equipment
- (a) _____
- (b) _____
11. Proposed emission control mitigation measures
- (a) _____
- (b) _____
12. Include a compliance plan indicating the proposed activities and the schedule for bringing the facility into compliance (*tick as applicable*)—
- Expected emissions from the facility are likely to exceed the applicable emission standard;
 - Dispersion modelling is done for any expected emissions from the facility, and the emissions are found to be likely to exceed the ambient air quality standard; or
 - Expected ambient air quality measurements at required monitoring locations exceed a prescribed air quality standard.
13. Site layout plan of polluting equipment (*attach sketch and GPS coordinates*)

(a) *Distance of the equipment from the nearest receptors or other sensitive area(s)*

(b) *Emission (fall-out) point*

14. Emission control equipment in place

15. Duration of licence applied for:

From _____ day/ _____ /month _____ /year

16. Other relevant information on non-point sources or fugitive emissions or other operations contributing to the air pollution in the areas of concern _____

17. Anticipated date of compliance _____ day _____ month _____ year.

18. Road map to compliance with relevant air quality standards.

(a) _____

(b) _____

19. Air quality monitoring programme (*whether it is to be developed/is available, or needs to be reviewed and updated*).

(Attach other information, if necessary)

PART B. Facility compliance record in the case of renewal of licence.

1. Is the facility in operation? Yes: _____ No: _____ Partially _____
(Tick as appropriate)

(a). If Yes, please provide date when the facility started operation.

(b). If partially, provide details

(c). If No, please provide reasons for non-operation.

2. During the duration of the licence, were measures taken to bring the emissions within acceptable limits?

If Yes, state the nature of those measures.

If Yes, state why you need more time to comply?

3. What are the resources needed to bring the facility into compliance with acceptable emission limits?

4. Is an Environment Management System (EMS) established and implemented for the facility?

Yes _____ No _____

If yes, provide summary of the Environment Management System (EMS), and level of implementation of the EMS.

5. Is the environmental management and monitoring plan up to date and functional?

Yes _____ No _____ (*Tick as appropriate*)

If No, indicate how it will be updated if the facility licence is renewed (*if application is for renewal of licence*).

6. Will there be new technologies and processes? Yes _____ No _____
Partially _____ (*Tick as appropriate*)

If Yes, attach a report of the nature of technologies and processes and the proposed best environment practices and best available technologies likely to be used in the project _____

7. Has the operator undertaken environmental compliance audits if due? Yes _____ No _____ (*tick as appropriate*)

If Yes, provide copies of the audit report and responses to the audit from the Authority or Lead Agency.

If No, give reasons why

(Attach other information if necessary)

8. Ambient air quality report (*attach*)
(i) On-site point source emission measurement
(ii) Off-site emission measurement

9. How effective are the air quality compliance monitoring programme and air quality management plans for the facility?

(Attach other information if necessary)

10. Adequacy of existing monitoring data for air quality;

(Attach other information if necessary)

11. How the monitoring data relates to past, present and future facility operating conditions;

(Attach other information if necessary)

12. Effectiveness of proposed interventions towards achieving continuous improvement.

(Attach other information if necessary)

Part C: Final provisions and attachments

1. Any other information/approvals

2. Attach a copy of the current licence *(if application is for renewal)*

3. Attach a certificate of approval of environmental and social impact assessment, where applicable.

4. Attach evidence of compliance with the conditions of a licence to be renewed including where applicable, a summary of the most recent environmental compliance audit report and where available, the response of the Authority to the audit report *(if application is for renewal)*.

5. Attach a copy of the most recent annual emissions report *(if application is for renewal)*

6. Attach a fugitive emission control when requested.

7. Attach a record of safety equipment and measures applied before, including the best available technology and best environment management practices (*if the application is for renewal*).
-
-

I declare that the information stated in this application is correct true and correct to the best of my knowledge.

Signature: _____

Name of applicant _____

Designation and title of applicant _____

Contact information (*phone number, e-mail and other*)

Date: _____

Note:

1. *The applicant shall lodge an application for renewal of a licence within sixty days prior to the expiry of the current licence.*
2. *The applicant shall be notified in writing, where the Authority rejects the application for renewal of the licence, with reasons for the rejection.*
3. *If the renewal of the licence is approved, a new licence shall be issued.*
4. *If the information given in the application is false, misleading, wrong or incomplete, it may lead to rejection of the application or suspension, withdrawal, amendment or cancellation of the licence, if granted.*
5. *This form must be submitted in triplicate, upon payment of the prescribed fees.*

(For Official Use Only)

Comments of the lead agency (*attach additional comment as necessary*)

Where applicable, comments from the public (*attach additional comments as necessary*)

Application received on a date _____ 20 _____

Fee paid Shs: _____ (*in words*) _____

Inspection by the technical committee on control of pollution

Comments of the Committee (*attach additional comment as necessary*)

Decision of Committee

Date

Chairperson, Technical Committee on
Pollution Control.

Date when decision was communicated to applicant (*attach communication to this form*)

FORM 2

Regulation 46(3)

AIR POLLUTION CONTROL LICENCE.

Application reference: _____

Licence No: PC/AIR: _____

Name of facility:

Address:

Location of facility

(Include GPS coordinates, block and plot number/village/parish/ward/sub-county/division/county/district and size of plot).

Brief description of facility

(Describe type of facility)

This licence is valid from _____ 20_____ to _____ 20_____

This licence is granted subject to the following conditions:

1. Permitted emission limits for the facility-

2. Performance standards to which the facility is subject-

3. Operational controls required, including alert systems that warn if the permitted emission limits are being exceeded.

4. Pollution abatement and risk reduction measures

5. Air quality monitoring programmes and air quality management plans.

6. Other conditions for the protection of human health and the environment

Date: _____

Signature: _____

.....
*Chairperson, Technical Committee on Pollution Control,
National Environment Management Authority.*

SCHEDULE 10

Regulations 42(2), 50(2), 52(3).

FEES

Application for licence/renewal/ variation/transfer of licence	-	Ushs. 100,000/=
Licence fee	-	Ushs. 200,000/=
Inspection of records/database	-	Ushs. 50,000/=

Cross Reference

Constitution

Access to Information Act, 2005, Act 6 of 2005

National Climate Change Act, 2021, Act 22 of 2021

National Environment (Audit) Regulations, 2020, S.I 47 of 2020

National Environment (Environmental and Social Assessment) Regulations, 2020, S.I. 143 of 2020

National Environment (Management of Ozone Depleting Substances and Products) Regulations, 2020, S.I. 48 of 2020

Occupational Safety and Health Act, 2006, Act 9 of 2006

Petroleum Supply Act, 2003, Act 13 of 2003

Public Health Act, Cap. 281

Traffic and Road Safety Act, 1998, Cap. 361

HON. SAM CHEPTORIS,
Minister of Water and Environment.