THE GOVERNMENT NOTICEpublished on
THE ENVIRONMENTAL MANAGEMENT ACT
(CAP. 191)
REGULATIONS
(Made under Sections 140, 145 and 230 (2) (s))
THE ENVIRONMENTAL MANAGEMENT (AIR QUALITY STANDARDS) REGULATIONS, 2007
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# THE ENVIRONMENTAL MANAGEMENT ACT (CAP. 191)

### **REGULATIONS**

(Made under Sections 140 , 145 and 230 (2) (s))

THE ENVIRONMENTAL MANAGEMENT (AIR QUALITY STANDARDS) REGULATIONS, 2007

### PART I PRELIMINARY PROVISIONS

Citation

**1.** These Regulations may be cited as the Environmental Management (Air Quality Standards) Regulations, 2007.

Interpretation

2. In these Regulations, unless the context requires otherwise-

Cap. 191

- "Act" means the Environmental Management Act;
- "Council" means the National Environment Management Council established under the Act;
- "Director General" "means the Director General of the National Environment Management Council;
- "unexpected emission" means emissions that do not and could not reasonably pass through a conventional outlet or a stack, chimney, vent or other functionally equivalent opening;
- "ambient air" shall mean an outdoor air to which people, plants, animals or material are in normal circumstances exposed;

"suspended particulate matter" shall mean airborne particles of 10 microns or less in diameter;

"emission limit" is the highest permissible quantity of pollutants released into the air from a pollution source, expressed as the concentration of pollutants in relation to one unit of production or to the degree of air pollution caused by such sources;

"imission" shall mean transfer of pollutants from the atmosphere to a receptor;

"imission limit" is the highest permissible weight concentration of pollutants contained in the air;

"main polluting activity" means an activity that does not comply with minimum quality standards prescribed under these Regulations for which prior grant of emission permit by the Council is mandatory;

- **3.** The object of these Regulations shall be to-.
- (a) set baseline parameters on air quality and emissions based on a number of practical considerations and acceptable limits;
- (b) enforce minimum air quality standards prescribed by the National Environmental Standards Committee;
- (c) help developers such as industrialists to keep abreast with environmentally friendly technologies; and
- (d) ensure protection of human health and the environment from various sources of pollution.

# PART II THE NATIONAL ENVIRONMENTAL STANDARDS COMMITTEE

Setting minimum standard of air quality

Object

- **4.-**(1) The role of the National Environmental Standards Committee shall be to-
  - (a) prescribe criteria and procedure for measurement for air quality;
  - (b) establish ambient air quality standards;
  - (c) establish occupational air quality standards;
  - (d) establish emission standard for various sources of air pollution;
  - (e) prescribe stack heights of chimneys for purposes of these Regulations;
  - (f) prescribe criteria and guidelines for air pollution control for both mobile and stationary sources; and
  - (g) prescribe any matter touching or affecting air emission quality standard.
  - (2) The limits shown under these Regulations shall be of general application except for those areas where the Minister prescribes special or specific limits for some categories of pollution sources as separate standards for the peculiar pollutants characteristics and loads.
  - (3) The National Environmental Standards Committee of Tanzania Bureau of Standards may recommend to the Minister any variation or addition or change or generally amendment to any Schedule to these Regulations.

Ambient, receptor, emission and

**5.-**(1) With approval of the Minister the National Environmental Standards Committee shall prescribe-

specification standards

- (a) ambient air quality standards to address the effects of emissions by setting the maximum pollutant concentration permitted into specific environment;
- (b) receptor air quality standards aimed at polluters whose activities harm the environment;
- (c) emission standards to determine permissible emissions that are less harmful to man and environment; and
- (d) specification standards that regulate industrial activities with a view to avoid or minimize environmental pollution arising there from.
- (2) Approval of a permit for emission of air pollutants shall be guided by ambient, receptor, emission and specification standards approved by the Minister.
- (3) Before approving the air quality standards the Minister may consult and accommodate the views and recommendations from any other sector Ministry.

Publication of the air quality standards.

**6.** The Minister shall publish in the Gazette the minimum air quality standards prepared by the National Environmental Standards Committee.

#### **PART III**

### COMPLIANCE WITH MINIMUM AIR QUALITY STANDARDS

Compliance with air quality standards

- 7. (1) Every person shall be required to comply with the minimum air quality standards approved and published pursuant to these Regulations.
- (2) Where it is necessary for effective implementation of laws, the Minister shall identify and allow the continued operation of existing minimum air quality standards made under other written laws.
- **8-**(1) No person shall emit or release any hazardous substance, chemical, gas or mixture containing gaseous and hazardous substances into the environment unless such emission or release is permitted under these Regulations or any other written law.
- (2) A person who releases any hazardous substance, chemical, gas or mixture containing gaseous and hazardous substances into the environment or into any other segment of the environment contrary to these Regulations commits an offence.
- (3) Where a person is convicted for contravention of this Regulation, the court may order that such person pays the cost of -
  - (a) the removal, including any costs which may be incurred by the Government or Government agency in the restoration of the environment damaged or destroyed as a result of the discharge; and
  - (b) third parties in the form of reparation, restoration, restitution or to compensation as may be determined by the court.

Prohibition to emission of hazardous substances, chemicals and materials or gas etc. (4) It shall be the duty of every organizations and individual producing, transporting, trading, using, storing or disposing of chemicals, toxic substances, inflammable or explosive substances, to comply with these regulations on safety for human and other living beings and avoid causing environmental degradation.

**Imission limits** 

**9.** A person undertaking any activity shall be required to comply with the highest permissible imission limits from the atmosphere to a receptor and respective test methods for sulphur oxides, carbon monoxide, black smoke and suspended particulate matters, nitrogen dioxide, nitrogen dioxide, ozone as prescribed in the First Schedule to these Regulations.

Highest permissible quantity of emission.

10. A person who undertakes an activity shall be required to comply with the highest permissible quantity of emission of sulphur oxides, carbon monoxide, hydrocarbon as total organic carbon, dust, nitrogen oxides or lead released into the air from a pollution source and respective test methods prescribed under the Second Schedule to these Regulations.

Specific tolerance limits of emissions from cement factories

11. Notwithstanding other provisions of these Regulations, tolerance limits of inactive dust, oxides of nitrogen and sulfur dioxide emissions from cement factories into the air shall be as prescribed in the Third Schedule to these Regulations.

Exhaust emissions of motor vehicles

12. A person owning, driving or controlling motor vehicles shall ensure that the vehicle comply with permissible limits of substances found in exhaust emissions of motor vehicles prescribed in the Fourth Schedule to these Regulations.

Enforcement powers of the Council.

- **13.-**(1) The Council shall have the general powers to ensure purposeful enforcement of these Regulations and in the exercise of such powers the Council may-
  - (a) order or carry out investigations of actual or suspected pollution of air including the collection of samples, records and data;
  - (b) enter, inspect and examine any place, area, premises or any boiler, vehicle, vessel, boat, aircraft or any carriage of any description on which it has reasonable grounds to believe that the activity is or is likely to lead to violation of prescribed air quality standards;
  - (c) take necessary measures to ensure that industry and other facilities adopt cleaner technology to meet the requirements of minimum air quality standards prescribed in these Regulations;

- (d) monitor emission concentration and nature of pollutants emitted;
- (e) make guidelines to minimize emissions and identify suitable technologies for minimization of pollution of air; or
- (f) do or perform anything or act that is necessary for the monitoring and control of air pollution.
- (2) Subject to the provisions of any other law prescribing a greater punishment, any person who emits pollution or emission in excess of environmental quality and criteria standards stipulated pursuant to these Regulations commits an offence and shall be on conviction liable to a fine not exceeding ten million shillings or to imprisonment for a term not exceeding five years or to both.
- (3) The Council shall establish and maintain close collaboration with sector ministries, local government authorities, the Tanzania Bureau of Standards, the Tanzania Atomic Agency, Occupational Safety and Safety Agency, the Government Chemist Laboratory Agency, the Tanzania Food and Drugs Authority, and such other institutions for the purposes of enforcement of air quality standards prescribed under these Regulations or under any other written law.

### PART IV AIR POLLUTANT EMISSION PERMITS

Air pollutant emission permit

- **14.-**(1) The Council shall designate certain categories of human activities to be main air polluting activities for which prior grant of pollutant emission permit by the Council shall be mandatory.
- Officer. Α City Environment Management Municipal (2) Environment Management Officer. District Environment Management Officer and Town Environment Management Officer may with respect to their areas of jurisdiction, recommend to the Council categories of human activities which are main air polluting activity.
- (3) A person whose activities do not comply with minimum air quality standards prescribed under these Regulations shall apply for registration in relation to such main air polluting activity.
- (4) The Council shall at the end of every calendar year publish in the Gazette a list of persons who hold air pollutant emission permits.
- (5) The owner or operator of main air polluting activity shall apply for a permit issued by the Council.
- (6) The Council may grant a permit and register a main air polluting activity with the following conditions-
  - (a) periodic or continuous monitoring of stack or processes for performance or compliance testing, ambient and meteorological monitoring and other

measures to maintain and if necessary improve ambient air quality and such other terms and conditions as determined by the Council to be reasonable, necessary and consistent with the Act and these Regulations;

- (b) at all times, including periods of startup, shutdown, and malfunction, to maintain and operate air pollution control equipment, in accordance with the terms and conditions of the license and in a manner consistent with good air pollution control practice for minimizing emissions;
- (c) draw up and present to the Council proposed compliance status of the facility with respect to all applicable requirements including all sources that exceed emission standards or targets or are predicted to exceed ambient air quality standards or guideline concentration or other requirements that have not been satisfied:
- (d) a proposed compliance schedule setting forth remedial measures to be taken, including a sequence of actions with milestones leading to total compliance; and
- (e) such terms and conditions as the Council deems fit.
- (7) In determining whether or not to issue a permit or other authorization to emit contaminant, and the terms and conditions of the permit or authorization, the Council or any other person empowered to make the decision shall-
- (a) refer to the guide from Environmental Impact Assessment and Environmental Audit conducted:
- (b) consider the cumulative effect on the environment likely to result from any such grant; and
- (c) seek to ensure that the prescribed best practicable option is adopted.
- (8) For purposes of these Regulations, "best practicable option" means the best method for preventing or minimizing adverse effects on human health, life or the environment.
- (9) A person who-
- (a) fails to register his main polluting activity;
- (b) being a registered owner or operator of a main polluting activity contravenes conditions or compliance schedule or any terms attached to the permit,

commits an offence.

Review of compliance plan.

- **15.-**(1) Where any compliance plan prepared by owner or operator of a main air polluting activity is not approved, the Council shall in writing provide the reasons for refusal and allow sixty days following the notification of refusal of the revise and resubmit the compliance plan.
- (2) Where after the review of the revised compliance plan there remain aspects that are inadequate, the Council shall impose

conditions to be adhered to together with written reasons for imposing such conditions.

Duration of air pollutant emission permit.

**16.** The air pollutant emission permit shall be valid for a period of five years from the date of the grant of the permit and shall be renewable on application for a period of successive three years.

Non-transferability of permit between facilities.

17. The air pollutant emission permit shall not be transferable from one facility to another facility.

Transfer and change of ownership or operation.

- **18.-**(1) The owner or operator holding an air pollutant emission permit shall notify the Council in writing at least ninety days prior to the occurrence of any of the following:
  - (a) change the owner or operator or both to whom the air pollutant emission license was issued and the name and address of the new owner or operator;
  - (b) change the name of a corporation or the operator or partnership; or
  - (c) change the mailing address of the owner or operator
  - (2) A copy of a notification shall be sent to respective City Environment Management Officer, Municipal Environment Management Officer, District Environment Management Officer, and Town Environment Management Officer.
- (3) Where notification has been given in accordance with these Regulations, the owner or operator shall request a transfer of the permit on payment of the prescribed fee.

Fees for emission of pollutants

19. A person who is permitted to emit pollutants pursuant to the provisions of these Regulations shall be required to pay fees as may be prescribed by the Minister.

Other registration fees

20. A person who is applying for registration in accordance with the provisions of these Regulations shall be required to pay such fees as may be prescribed by the Minister.

#### PART V

### AIR QUALITY COMPLIANCE AND ENFORCEMENT

Taking and analysis of samples.

21.-The taking of samples and analysis shall be carried out by the Council and laboratories accredited or designated in accordance with the Act.

Compliance orders

- 22.-(1) Where the Council has reason to believe that-
- (a) any condition of a permit has been breached or about to be breached;
- (b) any person is in breach of any provisions of these Regulations or any terms and conditions made thereunder,

it may issue an compliance order.

- (2) The compliance order shall specify in such terms as would enable the person on whom it is served to understand and shall contain the following-
- (a) the name of the person to whom it is addressed;
- (b) the action or non-action or other matter which it is alleged to constitute the breach of the terms of the permit or of any condition attached to the permit;
- (c) steps that must be taken to rectify the breach, time, being not earlier than twenty one days from the date of service of the notice of compliance, and the reasons why those steps are being required;
- (d) fee or compensation if any which must be paid by the permit holder to make good the losses or damage caused by such breach;
- (e) the date by which the person shall comply with the order; and
- (f) revocation of the permit and penalty for non-compliance.
- (3) A City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer and a Town Environment Management Officer may issue compliance order.
- (4) Where any person fails to comply with compliance order, the Council, a City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer and a Town Environment Management Officer may-
- (a) take the necessary steps to remedy the breach and recover the cost from the offender; and
- (b) ask the relevant authority which licensed the offender to alter the conditions of the licence or cancel the licence.
- (5) Any person who breaches compliance order, commits an offence and shall on conviction, be liable to a fine of not more than ten million shillings or to imprisonment for a term not exceeding five years or to both.
- (6) Where a person fails to comply with the requirement specified in the prevention order, that person shall be liable to a further fine not exceeding one hundred thousand shillings for every day or part of a day during which the offence continued.

Protection orders.

- 23.-(1) The Council, a City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer and a Town Environment Management Officer may serve protection order against activities likely to result in adverse effect on the air or to the environment or public health.
- (2) A person who breaches an order made under Subregulation (1) commits an offence and shall be liable on conviction to a fine not exceeding five million shillings or to imprisonment for a term not exceeding seven years or to both.

Stop orders

24.-(1) Notwithstanding the provisions governing notice of

compliance orders, the Council, a City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer and a Town Environment Management Officer may issue a stop order to any person where he is satisfied that further delays will occasion more serious harm to human health or living environment.

- (2) A copy of a stop order shall contain such information and be made known in such a manner as will enable the person or group of persons on whom it is served to understand and comply with such order.
- (3) A person on whom a stop order is served shall stop performing any of the activities referred to in the stop order.
- (4) A person defying any stop order commits an offence and shall be liable on conviction, to a fine not exceeding five million shillings or to imprisonment for a term not exceeding seven years or to both.

Powers of environmental inspectors.

Emergency powers to prevent emissions.

- 25. An environmental inspector appointed or designated shall have and exercise powers as conferred upon him by the Act.
- 26.- (1) An environmental inspector who observes or receives information on emission into the environment in an amount, concentration or manner that constitutes a risk to human health or environment, may serve an emergency prevention order.
- (2) A prevention order shall require a person against whom it is made to-
- (a) create and forward to the Council a written emergency response plan that is adequate to reduce or eliminate the risk;
- (b) have any necessary equipment, facilities and trained personnel available to deal with the risk; and
- (c) take whatever other measures which may be necessary to ensure that any emergency can be effectively responded to.
- (3) A person on whom a prevention order is served shall comply with the requirements of the order by the date or dates specified in the order and where no date is specified, that person shall comply with the order immediately.
- (4) A person who contravenes Sub-regulation (3), commits and offence and shall on conviction be liable to a fine of not more than one million shillings or to imprisonment for a term not exceeding six months.
- (5) A person who fails to comply with the requirement specified in the prevention order within the specified time, that person shall be liable to a further fine not exceeding one hundred thousand shillings for every day or part of a day during which the offence continued.

Disobeying environmental inspectors

#### 27. A person who-

(a) hinders or obstructs an environmental inspector in the execution of his duties under these Regulations;

- (b) fails to comply with a lawful order or requirements made by any environmental inspector in accordance with these Regulations;
- (c) refuses an environmental inspector entry upon any land or into any premises which he is empowered to enter by these Regulations;
- (d) impersonates an environmental inspector;
- (e) refuses an environmental inspector access to records kept in accordance with the Act with respect to these Regulations;
- (f) gives environmental inspector false name or false address or misleading information,

commits an offence and shall be liable on conviction, to a fine not exceeding ten million shillings or to imprisonment for a term of not more than three years or to both.

Accidental or inadvertent emissions.

- 28.-(1) A holder of a permit, owner or occupier of premises shall be required to ensure that all incidents of inadvertent or accidental emissions or pollution of air in contravention of standards prescribed under these Regulations or any other written law reports within seven days of the occurrence to the respective City Environment Management Officer, Municipal Environment Management Officer or Town Environment Management Officer for transmission to the Council.
- (2) A person who fails to report accidental or inadvertent discharge commits an offence and shall be liable on conviction to a fine not exceeding five million shillings or to imprisonment for a term not exceeding seven years or to both.

Reward for reporting emission or pollution.

29. The Minister may provide a reward to any person reporting an incident of accidental, concealment or inadvertent emission or pollution of the air.

Enforcement of environmental quality standards

- 30.-(1) For purposes of enforcing environmental air quality standards and criteria, the Council or an environmental inspector may-
- (a) order or carry out investigations of actual or suspected environmental pollution including the collection of samples, records and data:
- (b) enter, inspect and examine any place, area, premise or any vehicle, vessel, boat, aircraft or any carriage of any description on which it has reasonable grounds to believe that the activity is or is likely to lead to contravention of environmental air quality standards;
- (c) take necessary measures to ensure that industry and other facilities adopt cleaner technology to meet the requirements of air quality standards prescribed under these Regulations;
- (d) monitor emission concentration and nature of pollutants emitted;
- (e) make guidelines to minimize emissions and identify suitable technologies for minimization of air pollution; or
- (f) do or perform anything or act that is necessary for the monitoring and control of environmental pollution.

(2) The Council shall establish and maintain close collaboration with sector Ministries, local government authorities, the Tanzania Bureau of Standards, the Tanzania Atomic Agency, the Government Chemist Laboratory Agency, the Occupational Health and Safety Authority, Surface and Marine Transport Regulatory Authority, the Tanzania Civil Aviation Authority, the Tanzania Meteorological Agency, the Energy and Water Utilities Regulatory Authority and such other institutions for the purposes of enforcement of air quality standards.

Control of gaseous wastes.

31. A person who violates rules or procedures prescribed by a local government authority on gaseous and particulate wastes commits an offence and shall be liable on conviction to a fine not exceeding five million shillings or to imprisonment for a term not exceeding two years or to both.

### PART VI RECORDS AND REPORTING

Records and reporting.

- **32.-**(1) The Central Environmental Information System kept and maintained by the Council under the Act shall include-
  - (a) annual reports on implementation and enforcement of these Regulations sent by a City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer or a Town Environment Management Officer;
  - (b) environmental obligations under any other law;
  - (c) directives issued by the Minister on emission of pollutants;
  - (d) periodic returns lodged with the Council; and
  - (e) permits issued under these Regulations.
- (2) The Director of Environment and the Director General of the National Environmental Management Council shall have access to any information relating to the implementation of these Regulations, including any reports on emission of pollutants, necessary to enable them to carry out their respective duties under these Regulations.
- (3) Records kept and maintained under Sub-regulation (1) shall be public records and subject to the needs of confidentiality as circumstances may require and any fees which may be prescribed, may be accessed in accordance with the Act.

### PART VII OFFENCES AND PENALTIES

Offences relating to environmental standards.

- **33.** A person who-
- (a) contravenes any air quality standards for which no other penalty is specifically provided for;
- (b) contravenes a measure prescribed under these Regulations for which no other penalty is specifically provided,

shall be liable on conviction to a fine of not less than five hundred thousand shillings and not exceeding ten million shillings or to

imprisonment to a term of not less than six months and not exceeding five years.

### Compounding of offences.

- **34.**-(1) The Director General or an environmental inspector may, subject to and in accordance with the provisions of the Act compound any offence under these Regulations from any person who shows willingness to pay the sum of money as penalty for contravening the provisions of these Regulations.
  - (2) Subject to the provisions of these Regulations authorizing any measure that may be taken in addition to a fine that may otherwise be taken pursuant to an order of the Tribunal or court, no further criminal or civil proceedings shall be taken against a person in respect of whom powers to compound offence has been exercised.

# PART VIII MISCELLANEOUS PROVISIONS

### Appeal to the Minister

**35.** A person who is aggrieved by the decision of the Council, an Environmental Inspector, a City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer or a Town Environment Management Officer made under these Regulations may within thirty days of the decision appeal to the Minister.

### Appeal to the Tribunal.

**36.** A person who is aggrieved by the decision of the Minister may within thirty days following that decision appeal to the Environmental Appeals Tribunal in such manner as may be prescribed by the Tribunal.

### Amendment of Schedules.

**37.** The Minister may amend Schedules to these Regulations.

### FIRST SCHEDULE

### PERMISSIBLE WEIGHT CONCENTRATION (IMISSION LIMITS) FROM THE ATMOSPHERE TO A RECEPTOR AND RESPECTIVE TEST METHODS

Pollutant	Guideline	Limit Level	Test Method
Sulphur oxides, $SO_x^*$	Annual mean of 40 – 60 μg/Nm³ (0.05-0.08 mg/kg) or 24 – hour average 100 μg/Nm³ (0.129 mg/kg)	Daily average of hourly values shall not exceed 0.1 mg/kg  0.5 mg/Nm³ for 10 minutes	TZS 837 Parts (1, 2, and 4).
Carbon monoxide, CO	Aims at preventing carboxyhaemoglobin levels exceeding 2.5-3% in non-smoking people.	A maximum permitted exposure of 100mg/Nm³ for periods not exceeding 15 minutes.      Time-weighed exposures at the following levels:     100 mg/Nm³ for 15 minutes     60 mg/Nm³ for 30 minutes;     30 mg/Nm³ for 60 minutes     10 mg/Nm³ for 8 hours.     or  Daily average of hourly values shall not exceed 10mg/kg and average of hourly values in eight consecutive hours shall not exceed 20 mg/kg.	TZS 837 Parts 1,2, and 6
Black smoke and suspended particulate matters (PM 10)	Black smoke 40 to 60 μg/Nm³ (0.05-0.08 mg/kg)  PM 10 60 to 90 μg/Nm³ (0.05 – 0.116 mg/kg)	Daily average of hourly values shall not exceed 0.10 µg/Nm³ and hourly values shall not exceed 0.20 µg/Nm³	TZS 837 Parts 1, 2 and 3.
Nitrogen dioxide. NOx	Annual mean of 0.1 µg/Nm <sup>3</sup>	150 μg/Nm³ for 24-hours average value 120μg/Nm³ for 8 hours	TZS 837 Part 1, 2, and 5
Lead	Annual mean of 0.5 – 1.0 μg/Nm <sup>3</sup>	1.5μg/Nm <sup>3</sup> for 24 – hours average value	ISO 9855:1993
Ozone	Annual mean of 10 – 100 μg/Nm <sup>3</sup>	120 μg/Nm <sup>3</sup> for 8 – hours average value	

\* To be reported as SO<sub>2</sub>

### SECOND SCHEDULE

### HIGHEST PERMISSIBLE QUANTITY (EMISSION) AND TEST METHODS

Pollutant	Guideline	Limit Level	Test Method
	Large Combustion Plants (LCP) using solid fuel with thermal effect of: 50 to 100 MWth	Yearly average of: 850 mg/Nm <sup>3</sup>	
	100 to 300 MWth	200 mg/Nm <sup>3</sup>	
	> 300 MWth	200 mg/Nm <sup>3</sup>	
	LCP using liquid fuel with thermal effect of:		
Sulphur oxides* SO <sub>x</sub>	50 to 100 MWth	850 mg/Nm <sup>3</sup>	TZS 837 Part 4
	100 to 300 MWth	400 to 200 mg/Nm³ (linear decrease)	
	> 300 MWth	200 mg/Nm <sup>3</sup>	
	LCP using gaseous fuel	35 mg/Nm <sup>3</sup>	
	LCP using low calorific gases from gasification of refinery residues, coke oven gas, blast-furnace gas	800 mg/Nm <sup>3</sup>	
	Liquid fuel combustion with heat output exceeding 5MW.	Not to exceed 175 mg/Nm <sup>3</sup>	
Carbon monoxide CO	Solid fuel combustion with the heat output of 50MW and above	Not to exceed the level of 250 mg/Nm <sup>3</sup>	TZS 837 Part 6
Hydrocarbon (as Total Organic Carbon)		Not to exceed 20 mg/Nm <sup>3</sup>	TZS 837 Part 7
Dust	Inert dust, including cement.	Not to exceed 250mg/Nm <sup>3</sup> (24h mean value)	TZS 837 Part 3

\* To be reported as SO<sub>2</sub>

Pollutant	Guideline	Limit Level	Test Method
	LCP using solid fuel with thermal effect of: 50 to 500 MWth	Yearly average of: 600 mg/Nm <sup>3</sup>	
	>500 MWth	500 mg/Nm <sup>3</sup>	
	LCP using liquid fuel with thermal effect of:		F70 027 D 4 1 2
Nitrogen Oxides* NO <sub>x</sub>	50 to 500 MWth	450 mg/Nm <sup>3</sup>	TZS 837 Part 1, 2, and 5
	>500 MWth	400 mg/Nm <sup>3</sup>	
	LCP using liquid fuel with thermal effect of:		
	50 to 500 MWth	300 mg/Nm <sup>3</sup>	
	>500 MWth	200 mg/Nm <sup>3</sup>	
Lead	Not to exceed 5 tonne/year of lead or lead compounds (measured as elemental lead) by a stationary source		ISO 9855:1993

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 $<sup>^{*}</sup>$  To be reported as  $NO_{2}$ 

#### THIRD SCHEDULE

## TOLERANCE LIMITS OF INACTIVE DUST, OXIDES OF NITROGEN AND SULFUR DIOXIDE EMISSIONS FROM CEMENT FACTORIES INTO THE AIR

		Limit					
S/N	/N Characteristic Im		Optimal Value	Time (Yrs)	Method of Test		
1	DUST – for systems with:						
	- MLTC	2000	50	5	TZS 837(Part 3): 2004		
	- FF-sm	150	50	8	(ISO 9096)		
	- EP-le	500	50	8			
	- FF-jp	50	50	N/A			
	- EP-he	50	50	N/A			
2	NOx	1800	1500	6	TZS 837(Part 5): 2004		
3	SO <sub>2</sub>	800	500	8	TZS 837(Part 4): 2004		

#### NOTES

- 1. All values are in mg/Nm<sup>3</sup>, dry gas basis @ 273 K, 101.3 kPa and 10% 0<sub>2</sub> (kiln stack only)
- 2. Limits are the values not to be exceeded during periodic measurement under normal conditions.
- 3. Where continuous monitoring exists, the limit represents the monthly average exclusive of periods under abnormal conditions.

In compound kiln/raw mill systems, operation with either the kiln or the raw mill alone is considered as abnormal condition.

# FOURTH SCHEDULE EMISSION LIMITS FOR MOTOR VEHICLES

### **TABLE A: Emission Limits for Passenger Cars (>2.5 tonnes)**

<u>Note</u>: Limits shall be determined by methods conforming to TZS 985/ISO 3929 and/or analyzers conforming of TZS 986/ISO 3930

Compound	Limit (g/km)
D	iesel
Carbon Monoxide (CO)	2.72
Hydrocarbons (HC)	-
Hydrocarbons and Nitrogen Oxides (HC+NOx)	0.97
Nox	0.50
Particulate Matters (PM)	0.14

Petrol (Gasoline)		
СО	2.72	
НС	0.20	
HC+Nox	0.97	
Nox	0.15	
PM	-	

### TABLE B: Emission Limits for Light Commercial Vehicles, g/km

<u>Note</u>: Limits shall be determined by methods conforming to TZS 985/ISO 3929 and/or analyzers conforming of TZS 986/ISO 3930

Compound	Limit (g/km)	
	Diesel	
<1305 kg		
СО	2.72	
НС	-	
HC+Nox	0.97	
Nox	0.50	
PM	0.14	
	1305-1760 kg	
CO	5.17	
HC	-	
HC+Nox	1.40	
Nox	0.65	
PM	0.19	
	>1760 kg	
СО	6.90	
НС	-	
HC+Nox	1.70	
Nox	0.78	
PM	0.25	
	Petrol (Gasoline)	

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<1305 kg		
СО	2.72	
HC	0.20	

### TABLE B: Emission Limits for Light Commercial Vehicles, g/km

<u>Note</u>: Limits shall be determined by methods conforming to TZS 985/ISO 3929 and/or analyzers conforming of TZS 986/ISO 3930

	<del>_</del>			
Compound	Limit (g/km)			
HC+Nox	0.50			
Nox	0.15			
PM	-			
N1, Class II	1305-1760 kg			
СО	5.17			
HC	-			
HC+Nox	1.40			
Nox	-			
PM	-			
>1760 kg				
СО	6.90			
HC	-			
HC+Nox	1.70			
Nox	-			
PM	-			

### TABLE C: Emission Limits for Heavy Duty (HD) Diesel Engines

<u>Note</u>: Limits shall be determined by methods conforming to TZS 985/ISO 3929 and/or analyzers conforming of TZS 986/ISO 3930

Pollutant	Limit
СО	4.5 g/kWh
NOx	1.1 g/kWh

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НС	8.0 g/kWh
PM	0.612 g/kWh
Smoke	0.15 g/m

Table D Exhaust Emission Limits for 3 and 2-Wheel Vehicles  Note: Limits shall be determined by methods conforming to TZS 985/ISO 3929 and/or analyzers conforming of TZS 985/ISO 3930	
Emission Limits for 3 - Wheel Gasoline Vehicles	
Pollutant	Limit (g/km)
СО	4.0
HC+NOx	2.0
Emission Limits for 2 - Wheel Gasoline Vehicles	
Pollutant	Limit (g/km)
СО	2.00
HC+NOx	3.60

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