

LISTED ACTIVITIES AND ASSOCIATED MINIMUM EMISSION STANDARDS IDENTIFIED IN TERMS OF SECTION 21 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (ACT NO. 39 OF 2004)

- (a) The following transitional and special arrangements shall apply:
- (i) Facilities processing slag by the application of heat for the recovery of chromium or manganese content shall report the emissions of Cr(III) and Cr(VI) or Mn and its compounds respectively to the licensing authority annually, commencing within one year of the publication of the notice.
 - (ii) A fugitive emission management plan must be included in the Atmospheric Emission License of the Listed Activity.

(21) Subcategory 4.21: Metal recovery

Description:	The recovery of non-ferrous metal from any form of scrap material containing combustible components by the application of heat.		
Application:	All installations		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		

- (a) The following special arrangement(s) shall apply:
- (i) Compliance with the standards specified in category 8: Disposal of hazardous and general waste is required.

(22) Subcategory 4.22: Hot dip galvanizing

Description:	The coating of steel articles with zinc using molten zinc, including the pickling and/or fluxing of articles before coating.		
Application:	All installations		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	10
		Existing	15
Hydrogen Chloride	HCl	New	30
		Existing	30

- (a) The following transitional and special arrangements shall apply:
- (i) A fugitive emission management plan must be included in the Atmospheric Emission License of the Listed Activity.
 - (ii) Acid and zinc baths shall both be fitted with air extraction systems to the satisfaction of the licensing authority.
 - (iii) Measurements of emissions to be carried out in the exhaust ducting of the extraction system.

12. Category 5: Mineral Processing Industry

(1) Subcategory 5.1: Storage and handling of ore and coal

Description:	Storage and handling of ore and coal not situated on the premises of a mine or works as defined in the Mines Health and Safety Act 29/1996.		
Application:	Locations designed to hold more than 100 000 tons.		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Dustfall		New	a
		Existing	a

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^a: three month running average not to exceed limit value for adjacent land use according to dust fallout standards promulgated in terms of section 32 of the NEM: AQA, 2004 (Act No. 39 of 2004), in eight principal wind directions

- (a) The following transitional and special arrangements shall apply:
- (i) A fugitive emission management plan must be included in the Atmospheric Emission License of the Listed Activity.

(2) Subcategory 5.2: Clamp kiln for brick production

Description:	The production of bricks using clamp kilns.		
Application:	All installations		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Dust fall		New	a
		Existing	a
Sulphur dioxide	SO ₂	New	b
		Existing	b
^a : three month running average not to exceed limit value for adjacent land use according to dust fallout standards promulgated in terms of section 32 of the NEM: AQA, 2004 (Act No. 39 of 2004), in eight principal wind directions			
^b : Twelve month running average not to exceed limit value for adjacent land use. Passive diffusive measurement approved by the licensing authority carried out monthly.			

- (a) The following special arrangement shall apply:
- (i) A fugitive emission management plan must be included in the Atmospheric Emission License of the Listed Activity.

(3) Subcategory 5.3: Cement production (using conventional fuels)

Description:	The production and cooling of Portland cement clinker and the grinding and blending of clinker to produce finished cement		
Application:	All installations		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter (Kiln)	N/A	New	50
		Existing	100
Particulate matter (Cooler ESP)	N/A	New	100
		Existing	150
Particulate matter (Cooler BF)	N/A	New	50
		Existing	50
Particulate matter (Clinker grinding)	N/A	New	30
		Existing	50
Sulphur dioxide	SO ₂	New	250
		Existing	250
Oxides of nitrogen	NO _x expressed as NO ₂	New	1200
		Existing	2000

- (a) The following transitional and special arrangements shall apply:
- (i) A fugitive emission management plan must be included in the Atmospheric Emission License of the Listed Activity.

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(4) **Subcategory 5.4: Cement production (using alternative fuels and/or resources)**

Description:	The production and cooling of Portland cement clinker and the grinding and blending of clinker to produce finished cement where alternative fuels and/or resources are used.		
Application:	All installations		
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	80
Sulphur dioxide	SO ₂	New	50
		Existing	50
Oxides of nitrogen	NO _x expressed as NO ₂	New	500
		Existing	800
Total organic compounds,		New	10
		Existing	10
Hydrogen chloride	HCl	New	10
		Existing	10
Hydrogen fluoride	HF	New	1
		Existing	1
Cadmium, thallium	Cd + Tl	New	0.05
		Existing	0.05
Mercury	Hg	New	0.05
		Existing	0.05
Sum of arsenic, antimony, lead, cobalt, copper manganese, vanadium and nickel	As; Sb; Pb; Co; Cu; Mn; V & Ni	New	0.5
		Existing	0.5
Dioxins and furans	PCDD/PCDF	New	0.1ng I-TEQ /Nm ³
		Existing	0.1ng I-TEQ /Nm ³

- (a) The following transitional and special arrangements shall apply:
- (i) A fugitive emission management plan must be included in the Atmospheric Emission License of the Listed Activity.

(5) **Subcategory 5.5: Lime production**

Description:	Burning of lime, magnesite, dolomite and calcium sulphate		
Application:	All installations		
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	50
Sulphur dioxide	SO ₂	New	400
		Existing	400
Oxides of nitrogen	NO _x expressed as NO ₂	New	500
		Existing	500

- (a) The following transitional and special arrangements shall apply:
- (i) A fugitive emission management plan must be included in the Atmospheric Emission License of the Listed Activity.

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(6) **Subcategory 5.6: Glass and mineral wool production**

Description:	The production of glass containers, flat glass, glass fibre and mineral wool		
Application:	All installations producing 100 ton per annum or more		
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	100
Oxides of nitrogen	NO _x expressed as NO ₂	New	1500
		Existing	1860
Sulphur dioxide (Gas fired furnace)	SO ₂	New	800
		Existing	800
Sulphur dioxide (Oil fired furnace)	SO ₂	New	1500
		Existing	1500

(a) The following transitional and special arrangements shall apply:

- (i) A fugitive emission management plan must be included in the Atmospheric Emission License of the Listed Activity.

(7) **Subcategory 5.7: Ceramic production**

Description:	The production of tiles, bricks, refractory bricks, stoneware or porcelain ware by firing, excluding clamp kilns		
Application:	All installations producing 100 ton per annum or more		
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	150
Sulphur dioxide	SO ₂	New	400
		Existing	1000
Total fluorides measured as hydrogen fluoride	HF	New	50
		Existing	50

(8) **Subcategory 5.8: Macadam preparation**

Description:	The production mixtures of aggregate and tar or bitumen to produce road surfacing in permanent facilities and mobile plants		
Application:	All plants		
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	200
		Existing (Urban area)	100
Sulphur dioxide	SO ₂	New	1000
		Existing	1000

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(9) **Subcategory 5.9: Alkali processes**

Description:	Primary manufacturing of potassium or sodium sulphate or the treatment of ores by chloride salts whereby hydrogen chloride gas is evolved.		
Application:	All installations producing 100 ton per annum or more		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	100
Hydrogen chloride	HCl	New	30
		Existing	30

13. **Category 6: Organic Chemicals Industry**

(1) **Subcategory 6.1: Organic chemical manufacturing**

Description:	The manufacture or use in manufacture of hydrocarbons not specified elsewhere including acetylene, acetic, maleic or phthalic anhydride or their acids, carbon disulphide, pyridine, formaldehyde, acetaldehyde, acrolein and its derivatives, amines and synthetic rubber. The manufacture of organometallic compounds, organic dyes and pigments, surface-active agents, the polymerisation or co-polymerisation of any unsaturated hydrocarbons, substituted hydrocarbon (including vinyl chloride), the manufacture, recovery or purification of acrylic acid or any ester of acrylic acid, the use of toluene di-isocyanate or other di-isocyanate of comparable volatility; or recovery of pyridine		
Application:	All installations producing or using more than 100 tons per annum, and storage tanks with cumulative tankage capacity larger than 500 cubic meters, of any or a combination of the compounds listed above.		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non thermal)	N/A	New	40
		Existing	40
Sulphur trioxide (from sulphonation processes)	SO ₃	New	30
		Existing	100

(a) The following transitional and special arrangements shall apply:

(i) Leak detection and repair (LDAR) program approved by licensing authority to be instituted, within two years after publication date or as agreed with licensing authority.

(ii) Storage vessels for liquids shall be of the following type:

True vapour pressure of contents at storage temperature	Type of tank or vessel
Up to 14 kPa (corrected for altitude)	Fixed roof tank vented to atmosphere.
Above 14 kPa up to 91 kPa (both corrected for altitude)	External floating roof tank with primary and secondary rim seals for tank diameter larger than 20m, or fixed roof tank with internal floating deck fitted with primary seal, or fixed roof tank with vapour recovery system.
Above 91 kPa (corrected for altitude)	Pressure vessel

(iii) The roof legs, slotted pipes and/or dipping well on floating roof tanks shall have sleeves fitted to minimise emissions.

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- (iv) Relief valves on pressurised storage should undergo periodic checks for internal leaks. This can be carried out using portable acoustic monitors or if venting to atmosphere with an accessible open end, tested with a hydrocarbon analyser as part of an LDAR programme.
- (v) Loading/unloading: All liquid products with a vapour pressure above 14 kPa shall be loaded/unloaded using bottom loading, with the vent pipe connected to a gas balancing line. Vapours expelled during loading operations must be returned to the loading tank if it is of the fixed roof type where it can be stored prior to vapour recovery or destruction. Where vapour balancing is not possible, a recovery system utilising adsorption, absorption and condensation and/or incineration of the remaining VOC, with a collection efficiency of at least 95% shall be fitted.
- (vi) The actual temperature in the tank must be used for vapor pressure calculations.

(2) **Subcategory 6.2: Printing Works**

Description:	Processes in which publication rotogravure, product and packaging rotogravure, wide web flexographic printing presses or any other printing methods are operated.		
Application:	Installations with solvent consumption equal to or more than 25 tons per annum		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Total Volatile Organic Compounds		New	75
		Existing	90

14. **Category 7: Inorganic Chemicals Industry**

(1) **Subcategory 7.1: Primary production and use in manufacturing of ammonia, fluorine, and chlorine**

Description:	Production and use in manufacturing of ammonia, fluorine, and chlorine gas		
Application:	All installations		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Hydrogen fluoride	HF	New	5
		Existing	30
Chlorine	Cl ₂	New	50
		Existing	50
Ammonia	NH ₃	New	30
		Existing	100

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(2) **Subcategory 7.2: Primary production of acids**

Description:	The primary production of hydrofluoric, hydrochloric, nitric and sulphuric acid (including oleum) in concentration exceeding 10%; also processes in which oxides of sulphur are emitted through the manufacture of acid sulphites of alkalis or alkaline earths or through the production of liquid sulphur dioxide or sulphurous acid and secondary production of hydrochloric acid through regeneration		
Application:	All installations with the exception of those producing sulphuric acid as part of the recovery of metals from ore.		
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Primary production			
Total fluoride measured as Hydrogen Fluoride	F as HF	New	5
		Existing	30
Hydrogen chloride	HCl	New	15
		Existing	25
Sulphur dioxide	SO ₂	New	350
		Existing	2800
Sulphuric acid mist and sulphur trioxide expressed as SO ₃	SO ₃	New	25
		Existing	100
Oxides of nitrogen expressed as NO _x	NO _x	New	350
		Existing	2000
Secondary production of hydrochloric acid*			
Hydrogen chloride	HCl	New	30
		Existing	100

(3) **Subcategory 7.3: Primary production of chemical fertilizer**

Description:	The production of superphosphates, ammonium nitrate, ammonium phosphates and ammonium sulphate and their processing into solid fertiliser mixtures (NPK mixtures).		
Application:	All installations		
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	25
		Existing	100
Total fluoride measured as Hydrogen Fluoride	F as HF	New	5
		Existing	30
Ammonia	NH ₃	New	50
		Existing	100

(4) **Subcategory 7.4: Manufacturing activity involving the production, use in manufacturing or recovery of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, mercury, selenium, not associated with the application of heat**

Description:	Manufacturing activity involving the production, use or recovery of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, mercury, selenium, thallium and their salts not covered elsewhere by the application of heat, excluding their use as catalyst.		
Application:	All installations producing more than 1 ton per month		
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	10
		Existing	25

- (a) The following transitional and special arrangements shall apply:
- (i) Operators shall estimate the emissions of the metals using a method set out in Section 2. Where the estimated emissions exceed 10 tons per annum for any one of the metals, or 25 tons per annum for a combination of the metals,

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an air quality impact assessment for the emissions shall be submitted to the licensing authority annually, commencing within one year of the publication of the notice.

(5) **Subcategory 7.5: Production of calcium carbide**

Description:	Production of calcium carbide		
Application:	All installations producing more than 10 tons per month		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	25
		Existing	100

(6) **Subcategory 7.6: Production of phosphorus and phosphate salts not mentioned elsewhere**

Description:	Production of phosphorus and phosphate salts		
Application:	All installations producing more than 10 tons per month		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	25
		Existing	50

15. **Category 8: Disposal of hazardous and general waste**

Description:	Facilities where hazardous waste including health care waste, crematoria, veterinary waste, used oil or sludge from the treatment of used oil is incinerated		
Application:	Facilities with an incinerator capacity of 10 kg of waste processed per hour or larger capacity.		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 10% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	10
		Existing	25
Carbon monoxide	CO	New	50
		Existing	75
Sulphur dioxide	SO ₂	New	50
		Existing	50
Oxides of nitrogen	NO _x expressed as NO ₂	New	200
		Existing	200
Hydrogen chloride	HCl	New	10
		Existing	10
Dioxins and furans	PCDD/PCDF	New	0.1ng I-TEQ /Nm ³
		Existing	0.1ng I-TEQ /Nm ³
Sum of Lead, arsenic, antimony, chromium, cobalt, copper, manganese, nickel, vanadium	Pb+ As+ Sb+ Cr+ Co+ Cu + Mn+ Ni+ V	New	0.5
		Existing	0.5
Mercury	Hg	New	0.05
		Existing	0.05
Cadmium Thallium	Cd+Tl	New	0.05
		Existing	0.05

^b All parameters to be defined and measured as in the Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on incineration of waste

- (a) The following transitional and special arrangements shall apply:
- (i) The geometry of the incinerator must be designed to allow for a retention time of greater than 2 seconds at a temperature no less than 850°C for the incineration of non-chlorinated waste and/or 1100°C for chlorinated waste.

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- (ii) Continuous on-line stack measurement of N/A_{10} and CO. The accuracy of sampling and analyses to be demonstrated to SANAS accredited service providers.
- (iii) Continuous on-line stack measurement of HCl and SO_2 for facilities with a capacity greater than 100 kg/hour. The accuracy of sampling and analyses to be demonstrated to SANAS accredited service providers.
- (iv) Standard short term measurements of HCl and SO_2 four times per year for facilities with a capacity less than 100 kg/hour. The accuracy of sampling and analyses to be demonstrated to SANAS accredited service providers.
- (v) Standard short term measurements of Pb, Cr(total), As, Sb, Co, Cu, Mn, V, Ni, Cd, Tl and Hg four times per year. The accuracy of sampling and analyses to be demonstrated to SANAS accredited service providers.
- (vi) Annual measurement for dioxins and furans is required. The accuracy of sampling and analyses to be demonstrated to SANAS accredited service providers.

16. Category 9: Pulp and Paper Manufacturing Activities, including By-Products Recovery

(1) Subcategory 9.1: Lime recovery kiln

Description:		The recovery of lime from the thermal treatment of paper-making waste	
Application:		All installations producing more than 1 ton per month	
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Total reduced sulphur compounds measured as H ₂ S	H ₂ S	New	15
		Existing	15
Oxides of nitrogen	NO _x expressed as NO ₂	New	600
		Existing	2000

(2) Subcategory 9.2: Alkali waste chemical recovery furnaces

Description:		The recovery of alkali from the thermal treatment of paper-making waste	
Application:		All installations producing more than 1 ton per month	
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
	H ₂ S	New	15
		Existing	15
Sulphur dioxide	SO ₂	New	30
		Existing	300
Oxides of nitrogen	NO _x expressed as NO ₂	New	600
		Existing	2000

(3) Subcategory 9.3: Copeland alkali waste chemical recovery process

Description:		The recovery of alkali from the thermal treatment of paper-making waste using a Copeland process	
Application:		All installations producing more than 1 ton per month	
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	No plant of this type will be authorised in the future

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Sulphur dioxide	SO ₂	Existing	100
		New	No plant of this type will be authorised in the future
		Existing	800

(4) Subcategory 9.4: Chlorine dioxide plant

Description:	Production and use of chlorine dioxide for paper production		
Application:	All installations		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Hydrogen chloride	HCl	New	15
		Existing	30

(5) Subcategory 9.6: Wood drying and the production of manufactured wood products

Description:	The drying of wood by an external source of heat; the manufacture of laminated and compressed wood products		
Application:	All installations producing more than 10 tons per month		
Substance or mixture of substances		Plant status	mg/m³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Oxides of nitrogen	NO _x expressed as NO ₂	New	500
		Existing	700

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SCHEDULE A - METHODS FOR SAMPLING AND ANALYSIS

The following referenced documents are indispensable for the application of the Notice. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. Information on currently valid national and international standards can be obtained from Standards South Africa.

(1) ISO Standards

- (a) ISO 7934:1989 Stationary source emissions -- Determination of the mass concentration of sulfur dioxide Hydrogen peroxide/barium perchlorate/Thorin method
- (b) ISO 7934:1989/Amd 1:1998
- (c) ISO 7935:1992 Stationary source emissions –
- (d) ISO 7935:Stationary source emissions – Determination of the mass concentration of sulfur dioxide – Performance characteristics of automated measuring method
- (e) ISO 9096:Stationary source emissions – Manual Determination of mass concentration of particulate matter
- (f) ISO 10155:Stationary source emissions – Automated monitoring of mass concentrations of particles – Performance characteristics, test methods and specifications
- (g) ISO 10396:Stationary source emissions – Sampling for the automated determination of gas emissions concentrations for permanently-installed monitoring systems
- (h) ISO 10397:Stationary source emissions – Determination of asbestos plant emissions method by fibre counting measurement
- (i) ISO 10780:Stationary source emissions – Measurement of velocity volume flow rate of gas streams in ducts
- (j) ISO 10849:Stationary source emissions – Determination of the mass concentration of nitrogen oxides – Performance characteristics of automated measuring systems
- (k) ISO 11338-1:Stationary source emissions – Determination of gas and particle-phase polycyclic aromatic hydrocarbons Part 1: Sampling
- (l) ISO 11338-2:Stationary source emissions – Determination of gas and particle-phase polycyclic aromatic hydrocarbons Part 2: Sample preparation, clean-up and determination
- (m) ISO 11564:Stationary source emissions – Determination of the mass concentration of nitrogen oxides – Naphthylethylenediamine photometric method
- (n) ISO 11632:Stationary source emissions – Determination of mass concentration of sulphur dioxide – Iron chromatography method
- (o) ISO 12039:Stationary source emissions – Determination of carbon monoxide, carbon dioxide and oxygen – Performance characteristics and calibration of automated measuring systems

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- (p) ISO 12141:2002 Stationary source emissions
 - (q) Determination of mass concentration of particulate matter (dust) at low concentrations –
 - (r) Manual gravimetric method
 - (s) ISO 14164:1999 Stationary source emissions
 - (t) Determination of the volume flow-rate of gas streams in ducts -- Automated method
- (6) EPA methods
- (a) Method 1 - Traverse Points
 - (b) Method 1A - Small Ducts
 - (c) Method 2 - Velocity - S-type Pitot
 - (d) Method 2A - Volume Meters
 - (e) Method 2B - Exhaust Volume Flow Rate
 - (f) Method 2C - Standard Pitot
 - (g) Method 2D - Rate Meters
 - (h) Method 2F - Flow Rate Measurement with 3-D Probe
 - (i) Method 2G - Flow Rate Measurement with 2-D Probe
 - (j) Method 2H - Flow Rate Measurement with Velocity Decay Near Stack Walls
 - (k) Memo - New Test Procedures of Stack Gas Flow Rate in Place of Method 2
 - (l) Method 3 - Molecular Weight
 - (m) Method 3A - CO₂, O₂ by instrumental methods
 - (n) Method 3B - CO₂, O₂ by Orsat apparatus
 - (o) Method 3C - CO₂, CH₄, N₂, O₂ by determined by thermal conductivity
 - (p) Method 4 - Moisture Content
 - (q) Method 5 - Particulate Matter(PM)
 - (r) Method 5D - PM Baghouses (Particulate Matter)
 - (s) Method 5E - PM Fiberglass Plants (Particulate Matter)
 - (t) Method 5F-PM Fluid Catalytic Cracking Unit
 - (u) Method 5I - Determination of Low Level Particulate Matter Emissions
 - (v) Method 6 - Sulphur Dioxide (SO₂)
 - (w) Method 6A - SO₂, CO₂
 - (x) Method 6B - SO₂, CO₂ - Long Term Integrated
 - (y) Method 6C - SO₂ - Instrumental
 - (z) Method 6C Figures SO₂

LISTED ACTIVITIES AND ASSOCIATED MINIMUM EMISSION STANDARDS IDENTIFIED IN TERMS OF SECTION 21 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (ACT NO. 39 OF 2004)

- (aa) Method 7 - Nitrogen Oxide (NO_x)
- (bb) Method 7A-NO_x - Ion Chromatographic Method
- (cc) Method 7B - NO_x - Ultraviolet Spectrophotometry
- (dd) Method 7C - NO_x - Colorimetric Method
- (ee) Method 7D - NO_x - Ion Chromatographic
- (ff) Method 7E - NO_x - Instrumental
- (gg) Method 8 - Sulfuric Acid Mist
- (hh) Method 9 - Visual Opacity
- (ii) Method 10 - Carbon Monoxide-NDIR
- (jj) Method 10A - CO for Certifying CEMS
- (kk) Method 10B - CO from Stationary Sources
- (ll) Method 11 - H₂S Content of Fuel
- (mm) Method 12 - Inorganic Lead
- (nn) Method 13A - Total Fluoride (SPADNS Zirconium Lake)
- (oo) Method 13B - Total Fluoride (Specific Ion Electrode)
- (pp) Method 14 - Fluoride for Primary Aluminium Plants
- (qq) Method 14A - Total Fluoride Emissions from Selected Sources at Primary Aluminium Plants
- (rr) Method 15 - Hydrogen Sulfide, Carbonyl Sulfide, and Carbon Disulfide
- (ss) Method 15A - Total Reduced Sulfur (TRS Alt.)
- (tt) Method 16 - Sulfur (Semicontinuous Determination)
- (uu) Method 16A - Total Reduced Sulfur (Impinger)
- (vv) Method 16B - Total Reduced Sulfur (GC Analysis)
- (ww) Method 17 - In-Stack Particulate (PM)
- (xx) Method 18 - VOC by GC
- (yy) Method 19 - SO₂ Removal & PM, SO₂, NO_x Rates from Electric Utility Steam Generators
- (zz) Method 20 - NO_x from Stationary Gas Turbines
- (aaa) Method 21 - VOC Leaks
- (bbb) Method 22 - Fugitive Opacity
- (ccc) Method 23 - Dioxin and Furan (02/91 FR Copy).
- (ddd) Method 25 - Gaseous Nonmethane Organic Emissions
- (eee) Method 25A - Gaseous Organic Concentration (Flame Ionization)
- (fff) Method 25B - Gaseous Organic Concentration (Infrared Analyzer)

LISTED ACTIVITIES AND ASSOCIATED MINIMUM EMISSION STANDARDS IDENTIFIED IN TERMS OF SECTION 21 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (ACT NO. 39 OF 2004)

- (ggg) Method 26 - Hydrogen Chloride, Halides, Halogens
 - (hhh) Method 26A - Hydrogen Halide & Halogen-Isokinetic
 - (iii) Method 28A - Air to Fuel Ratio, Burn Rate - Wood-fired Appliances
 - (jjj) Method 29 - Metals Emissions from Stationary Sources
 - (kkk) Method 101 - Mercury from Chlor-Alkali Plants (Air)
 - (lll) Method 101A - Mercury from Sewage Sludge Incinerators
 - (mmm) Method 102 - Mercury from Chlor-Alkali Plants (Hydrogen Streams)
 - (nnn) Method 103 - Beryllium Screening Method
 - (ooo) Method 104 - Beryllium Emissions Determination
 - (ppp) Method 106 - Determination of Vinyl Chloride
 - (qqq) Method 107A - Vinyl Chloride content of Solvents
 - (rrr) Method 108 - Particulate & Gaseous Arsenic emissions
 - (sss) Method 108B - Arsenic
 - (ttt) Method 108C - Arsenic
 - (uuu) Methods 203A, B, and C - Opacity Determination for Time-Averaged Regulations
 - (vvv) Method 303 - By-product Coke Oven Batteries
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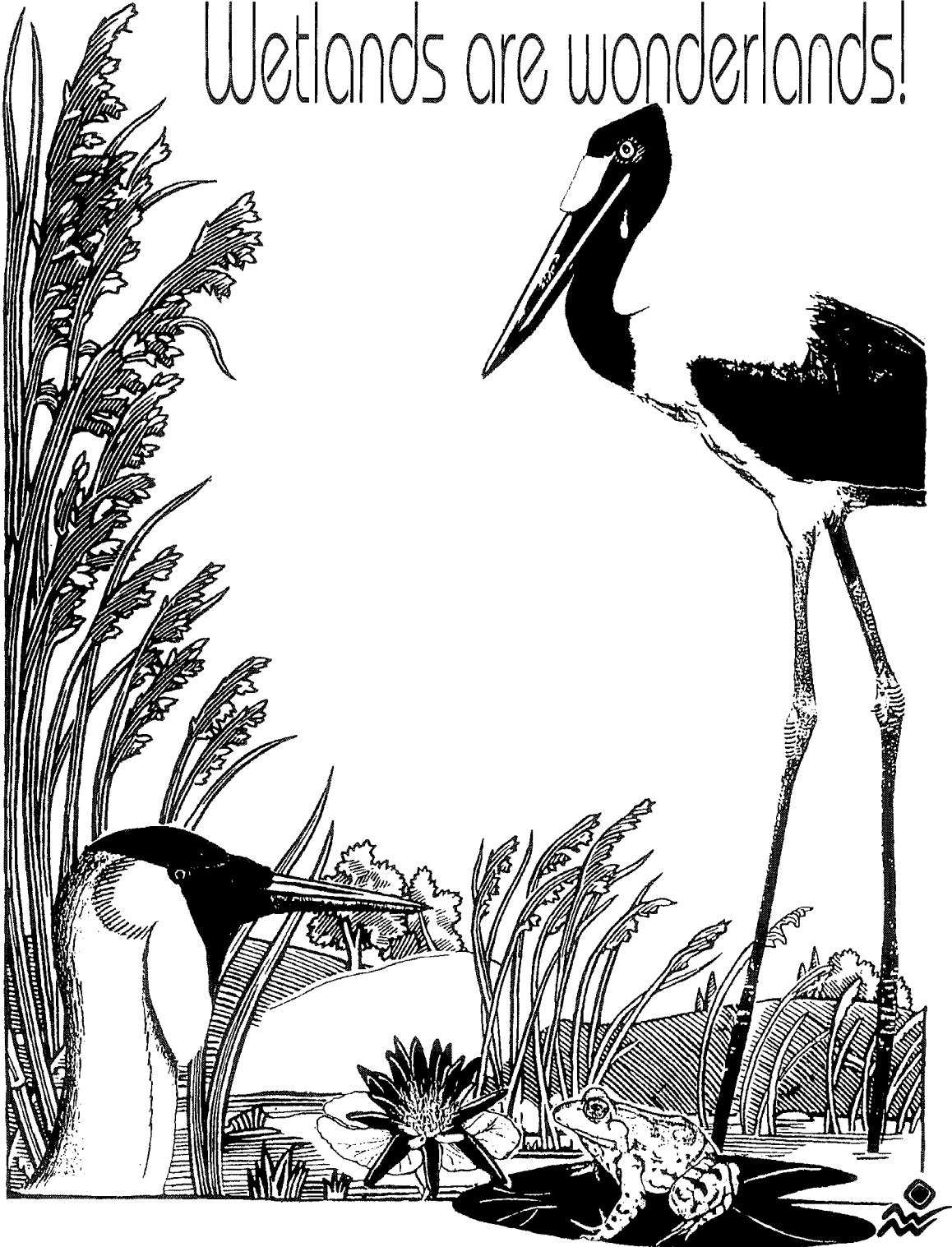
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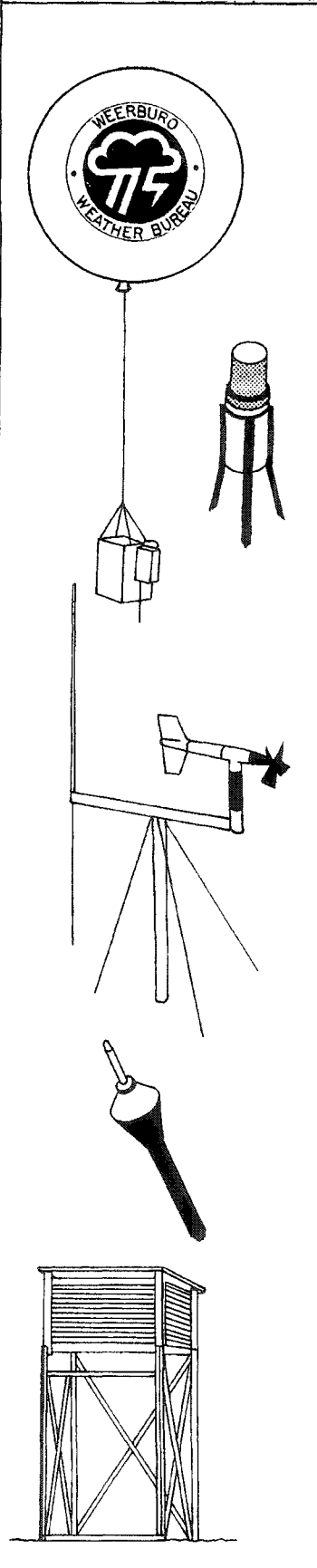
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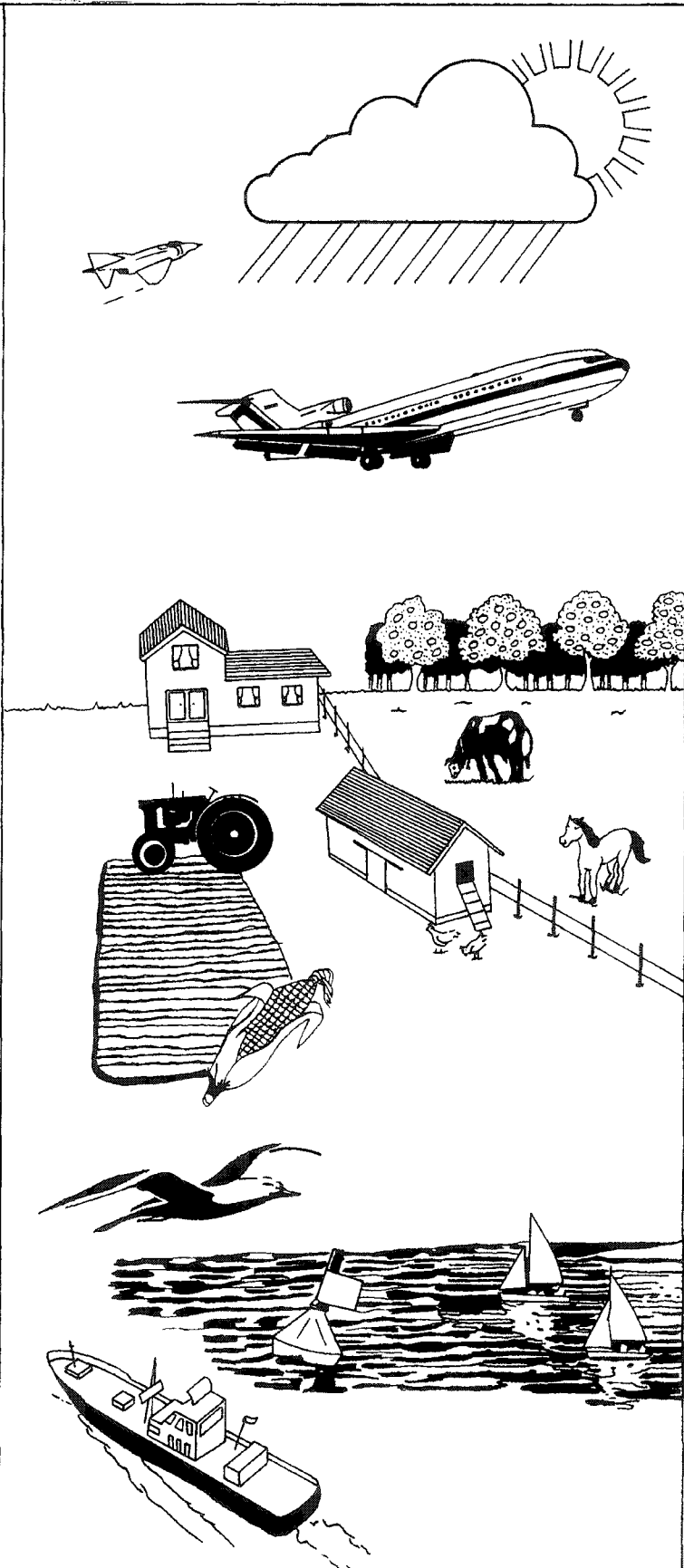


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