DEPARTMENT OF FORESTRY, FISHERIES AND THE ENVIRONMENT

NO. R. 6548 **29 August 2025**

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (ACT NO. 39 OF 2004)

PROPOSED AMENDMENTS TO THE 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)

I, Dion Travers George, Minister of Forestry, Fisheries and the Environment, hereby in terms of sections 21(1)(b), 32, 53(o), 55, 56, and 57 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), give notice of my intention to amend the list of activities which result in atmospheric emissions which have or may have a significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage, as published under Government Notice No. R.893, Government *Gazette* No. 37054 of 22 November 2013, as set out in the Schedule hereto.

The purpose of the proposed amendments is to address regulatory shortfalls that were identified in the implementation of the existing Notice. The proposed amendments are required to improve the implementation of the currently regulated activities by:

(i) improving the efficacy of implementation of the licensing and reporting functions;
(ii) strengthening the pollution prevention and minimizing the emissions from the listed activities identified in terms of section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).
(iii) providing clarity for improvement of interpretation; and
(iv) implementing court orders on specific sections.

Members of the public are invited to submit written representations or objections on the proposed amendments, within 30 (thirty) days from the date of the publication of this notice in the Government *Gazette*, or in a national newspaper, whichever date comes last, to any of the following addresses:

By post to: The Director-General: Department of Forestry, Fisheries and the Environment
Attention: Kgomotso Molokwane
Private Bag X477
PRETORIA
0001

By hand at: Ground Floor (Reception), 473 Steve Biko Road, Environment House, Arcadia, 0083

By email: KMolokwane@dffe.gov.za

Any enquiries in connection with the notice can be directed to Mr Rishaal Krishnanund at Tel: 012 399 9398/ Cell: 082 359 5792 or by email: RKrishnanund@dffe.gov.za or Kgomotso Molokwane at Tel: 012 399 9213/ Cell: 076 9407717 or by email: KMolokwane@dffe.gov.za

The Department of Forestry, Fisheries and the Environment complies with the protection of the Personal Information Act, 2013 (Act No. 4 of 2013), comments received and responses, therefore, may be collated into a comments and response report which will be made available to the public as part of the consultation process. If a commenting party has any objection to his or her name or the name of the represented company/organisation, being made publicly available in the comments and responses report, that objection should be highlighted in bold as part of the comments submitted in response to this Government Notice.

Comments received after the closing date may not be considered.

DR DION TRAVERS GEORGE
MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT

SCHEDULE

Definitions

1. In this Schedule, any word or expression to which a meaning has been assigned in the Act, bears that same meaning, and unless the context indicates otherwise –

"**the Act**" means the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004);

"the List" means the list of activities which result in atmospheric emissions which have or may have a significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage, as published under Government Notice No. R.893, Government *Gazette* No. 37054 of 22 November 2013, in terms of section 21(1)(b) of the Act; and

"**this Notice"** includes the List.

Amendment of the TABLE OF CONTENTS of the List

2. The TABLE OF CONTENTS of the List is hereby amended by the substitution for the TABLE of the following:

"TABLE OF CONTENTS

net heat input per facility: Liquid fuel-fired small boiler.....
(9) Subcategory 1.9: Small boilers with cumulative capacity that is equal to or exceeds 50 MW net heat input per facility: Gaseous fuel-fired small boiler (using natural gas and liquefied petroleum gas).....
(10) Subcategory 1.10: Small boilers with cumulative capacity that is equal to or exceeds 50 MW net heat input per facility: Gaseous fuel-fired small boiler (using process gas).....
(11) Subcategory 1.11: Small boilers with cumulative capacity that is equal to or exceeds 50 MW net heat input per facility: Solid biomass fuel-fired small boiler.....
Category 2: Petroleum Industry, the production of gaseous and liquid fuels as well as petrochemicals from
crude oil, coal, gas or biomass.....
(1) Subcategory 2.1: Combustion Installations.....
(2) Subcategory 2.2: Catalytic Cracking Units.....
(3) Subcategory 2.3: Sulphur Recovery Units.....
(4) Subcategory 2.4: Storage and Handling of Petroleum Products.....
(5) Subcategory 2.5: Industrial Fuel Oil Recyclers.....
Category 3: Carbonisation and Coal Gasification.....
(1) Subcategory 3.1: Combustion Installations.....
(2) Subcategory 3.2: Coke Production.....
(3) Subcategory 3.3: Tar Processes.....
(4) Subcategory 3.4 Char, Charcoal and Carbon Black Production.....
(5) Subcategory 3.5 Electrode Paste Production.....
(6) Subcategory 3.6 Synthetic Gas Production and Cleanup.....
Category 4: Metallurgical Industry.....
(1) Subcategory 4.1: Drying and Calcining.....
(2) Subcategory 4.2: Combustion Installations.....
(3) Subcategory 4.3: Primary Aluminium Production.....
(4) Subcategory 4.4: Secondary Aluminium Production.....
(5) Subcategory 4.5: Sinter Plants.....
(6) Subcategory 4.6: Basic Oxygen Furnaces.....
(7) Subcategory 4.7: Electric Arc Furnaces (Primary and Secondary Furnaces, including Laddle Furnaces).....
(8) Subcategory 4.8: Blast Furnaces.....
(9) Subcategory 4.9: Ferro-alloy Production.....
(10) Subcategory 4.10: Foundries.....
(11) Subcategory 4.11: Agglomeration Operations.....
(12) Subcategory 4.12: Pre-Reduction and Direct Reduction.....
(13) Subcategory 4.13: Lead Smelting.....
(14) Subcategory 4.14: Production and Processing of Zinc, Nickel and Cadmium.....
(15) Subcategory 4.15: Processing of Arsenic, Antimony, Beryllium, Chromium and Silicon.....
(16) Subcategory 4.16: Smelting and Converting of Sulphide Ores.....
(17) Subcategory 4.17: Precious and Base Metal Production and Refining.....
(18) Subcategory 4.18: Vanadium Ore Processing.....
(19) Subcategory 4.19: Production and or Casting of Bronze, Brass and Copper.....
(20) Subcategory 4.20: Slag Processes.....
(21) Subcategory 4.21: Metal Recovery.....
(22) Subcategory 4.22: Hot Dip Galvanizing.....

(34) Subcategory 6.34: Production and or Use of Carbon disulphide.....
Category 7: Inorganic Chemicals Industry.....
(1) Subcategory 7.1: Production and or Use in Manufacturing of Ammonia, Fluorine, Fluorine Compounds, Chlorine, and Hydrogen Cyanide.....
(2) Subcategory 7.2: Production of Acids.....
(3) Subcategory 7.3: Production of Chemical Fertilizer.....
(4) Subcategory 7.4: Production, Use in Production or Recovery of Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Lead, Mercury, and or Selenium, by the Application of Heat.....
(5) Subcategory 7.5: Production of Calcium Carbide.....
(6) Subcategory 7.6: Production or Use of Phosphorus and Phosphate Salts not mentioned Elsewhere.....
(7) Subcategory 7.7: Production of Caustic Soda.....
Category 8: Thermal Treatment of Hazardous and General Waste.....
(1) Subcategory 8.1: Thermal Treatment of General and Hazardous Waste.....
(2) Subcategory 8.2: Crematoria and Veterinary Waste Incineration.....
(3) Subcategory 8.3: Burning Grounds.....
(4) Subcategory 8.4: Drum Recycling Processes.....
Category 9: Pulp and Paper Manufacturing Activities, including By-Products Recovery.....
(1) Subcategory 9.1: Lime Recovery Kiln.....
(2) Subcategory 9.2: Chemical Recovery Furnaces.....
(3) Subcategory 9.3: Chemical Recovery Copeland Reactors.....
(4) Subcategory 9.4: Chlorine Dioxide Plants.....
(5) Subcategory 9.5: Wood Drying and the Production of Manufactured Wood Products.....
Category 10: Animal Matter Processing.....
(1) Subcategory 10.1: Animal Matter Processing.....
ANNEXURE A - METHODS FOR SAMPLING AND ANALYSIS.....
Repeal of the list of activities which result in atmospheric emissions which have or may have a significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage, 2010.....
Short tittle and commencement.....";

Amendment of Part 1: Definitions, of the List

3. Part 1: Definitions of the List is hereby amended by —

(a) the insertion after the definition of **"existing plant"**, of the following definition:

"existing small boiler" means any small boiler that was manufactured before 01 November 2013.; and

(b) the insertion after the definition of **"new plant"**, of the following definition:

"new small boiler" means any small boiler manufactured after 01 November 2013.";

Amendment of Part 2: General, of the List

4. Part 2 of the List: General, is hereby amended by —

(a) the insertion after paragraph (1), of the following paragraph:

"(1A) All production, consumption, usage and processing rates/thresholds prescribed in this Notice refers to design rates/thresholds.; and

(b) the substitution for paragraph (3), of the following paragraph:

"(3) Normal start-up and shut-down period is limited to a period of 48 hours unless otherwise specified by the licensing authority.";

Amendment of Category 1 of the List

5. Category 1 of the List is hereby amended by the insertion after Subcategory 1.6, of the following subcategories:

"(7) Subcategory 1.7: Small boilers with cumulative capacity that is equal to or exceeds 50 MW net heat input per facility: Solid fuel-fired small boiler

Description	Small boilers fuelled with solid fuels.		
Application	All small boilers fuelled with hydrocarbon based solid fuel, excluding biomass.		
Substance or mixture of substances		**Small boiler status**	**Limit value (dry mg/ Nm^3 at 273K; 101.3kPa and 10% O_2)**
Common name	**Chemical symbol**		
Particulate matter	PM	New	120
		Existing	250
Sulphur dioxide	SO_2	New	2800
		Existing	2800

(a) The following transitional arrangements shall apply: -

(i) Where a person operates two or more small boilers with a combined design capacity that is equal to or greater than 50MW heat input installed within a facility, that was not required to obtain an atmospheric emission license at the date of promulgation of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence operates two or more small boilers with a combined capacity that is equal to or greater than 50MW heat input within a facility; that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric

emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(8) *Subcategory 1.8: Small boilers with cumulative capacity that is equal to or exceeds 50 MW net heat input per facility: Liquid fuel-fired small boiler.*

Description	Small boilers fuelled with liquid fuels.		
Application	All liquid fuel-fired small boilers		
Substance or mixture of substances		**Small boiler status**	**Limit value (dry mg/ Nm^3 at 273K; 101.3kPa and 3% O_2)**
Common name	**Chemical symbol**		
Particulate matter	PM	New	100
		Existing	150
Sulphur dioxide	SO_2	New	500
		Existing	3500

(a) The following transitional arrangements shall apply: -

(i) Where a person operates two or more small boilers with a combined design capacity that is equal to or greater than 50MW heat input installed within a facility, that was not required to obtain an atmospheric emission license at the date of promulgation of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence operates two or more small boilers with a combined capacity that is equal to or greater than 50MW heat input within a facility at the date of promulgation of this Notice; that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(9) *Subcategory 1.9: Small boilers with cumulative capacity that is equal to or exceeds 50 MW net heat input per facility: Gaseous fuel-fired small boiler (using natural gas and liquefied petroleum gas)*

Description	Small boilers fuelled with gaseous fuels.	
Application	All small boilers fuelled with low particulate matter content gaseous fuels.	
Substance or mixture of substances	**Small boiler**	

Common name	Chemical symbol	status	Limit value (dry mg/ Nm^3 at 273K; 101.3kPa and 3% O_2)
Particulate matter	PM	New	10
		Existing	20
Sulphur dioxide	SO_2	New	35
		Existing	100

(a) The following transitional arrangements shall apply: -

(i) Where a person operates two or more small boilers with a combined design capacity that is equal to or greater than 50MW heat input installed within a facility, that was not required to obtain an atmospheric emission license at the date of promulgation of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence operates two or more small boilers with a combined capacity that is equal to or greater than 50MW heat input within a facility; that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(10) Subcategory 1.10: Small boilers with cumulative capacity that is equal to or exceeds 50 MW net heat input per facility: Gaseous fuel-fired small boiler (using process gas)

Description	Small boilers fuelled with gaseous fuels.		
Application	All small boilers fuelled with gaseous fuels generated by industrial processes.		
Substance or mixture of substances		**Small boiler status**	**Limit value (dry mg/ Nm^3 at 273K; 101.3kPa and 3% O_2)**
Common name	**Chemical symbol**		
Particulate matter	PM	New	90
		Existing	130
Sulphur dioxide	SO_2	New	1000
		Existing	3500

(a) The following transitional arrangements shall apply: -

(i) Where a person operates two or more small boilers with a combined design capacity that is equal to or greater than 50MW heat input installed within a facility, that was not required to obtain an atmospheric emission license at the date of promulgation of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence operates two or more small boilers with a combined capacity that is equal to or greater than 50MW heat input within a facility; that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(11) Subcategory 1.11: Small boilers with cumulative capacity that is equal to or exceeds 50 MW net heat input per facility: Solid biomass fuel-fired small boiler.

Description	Small boilers fuelled with solid biomass fuels		
Application	All small boilers fuelled with biomass fuels		
Substance or mixture of substances		**Small boiler status**	**Limit value (dry mg/ Nm^3 at 273K; 101.3kPa and 10% O_2)**
Common name	**Chemical symbol**		
Particulate matter	PM	New	120
		Existing	250
Sulphur dioxide	SO_2	New	1000
		Existing	1000

(a) The following transitional arrangements shall apply: -

(i) Where a person operates two or more small boilers with a combined design capacity that is equal to or greater than 50MW heat input installed within a facility, that was not required to obtain an atmospheric emission license at the date of promulgation of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence operates two or more small boilers with a combined capacity that is equal to or greater than 50MW heat input within a facility; that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.";

Amendment of Category 3 of the List

6. Category 3 of the List is hereby amended by the substitution for Subcategory 3.6, of the following Subcategory:

"(6) Subcategory 3.6 Synthetic Gas Production and Cleanup

Description	The production and cleanup of a gaseous stream derived from coal gasification and includes gasification, separation and cleanup of a raw gas stream through a process that involves sulphur removal and Rectisol as well as the stripping of a liquid tar stream derived from the gasification process.		
Application	All installations.		
Substance or mixture of substances		**Plant Status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3kPa.**
Common name	**Chemical symbol**		
Hydrogen Sulphide	H_2S	New	600
		Existing	4 200
Total Volatile Organic Compounds	N/A	New	130
		Existing	250
Sulphur dioxide	SO_2	New	500
		Existing	3 500

(a) The following special arrangement shall apply:

All the new and existing facilities must, within three (3) years of promulgation of this Notice, comply with the new hydrogen sulphide limit.";

Amendment of Category 4 of the List

7. Category 4 of the List is hereby amended by —

(a) the substitution for the title of Subcategory 4.7, of the following tittle:

"(7) Subcategory 4.7: Electric Arc Furnaces (Primary and Secondary Furnaces, including Ladle furnaces)"; and

(b) the substitution for Subcategory 4.17, of the following Subcategory:

"17 Subcategory 4.17: Precious and Base Metal Production and Refining

Description:	The production or processing of precious and associated base metals through chemical treatment		
Application:	500 g of product per month		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Particulate matter	N/A	New	50
		Existing	100

Chlorine	Cl_2	New	50
		Existing	50
Sulphur dioxide	SO_2	New	400
		Existing	400
Hydrogen chloride	HCl	New	30
		Existing	30
Hydrogen fluoride	HF	New	30
		Existing	30
Ammonia	NH_3	New	100
		Existing	100
Oxides of nitrogen	NO_X expressed as NO_2	New	300
		Existing	500

(a) The following special arrangement shall apply:

Thermal treatment standard are not applicable to precious and base metal refining processes..."; and

(c) the substitution for Subcategory 4.21, of the following Subcategory:

"(21) Subcategory 4.21: Metal Recovery

Description:	The recovery of metal from any form of scrap metal and/or material and waste material by the application of heat (excluding secondary Aluminium production covered under Subcategory 4.4 of the List)		
Application:	All installations.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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
Hydrogen fluoride	HF	New	1
		Existing	1
		New	0.5

Description:	The recovery of metal from any form of scrap metal and/or material and waste material by the application of heat (excluding secondary Aluminium production covered under Subcategory 4.4 of the List)		
Application:	All installations.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Sum of Lead, arsenic, antimony, chromium, cobalt, copper, manganese, nickel, vanadium	Pb+ As+ Sb+ Cr+ Co+ Cu + Mn+ Ni+ V	Existing	0.5
Mercury	Hg	New	0.05
		Existing	0.05
Cadmium Thallium	Cd+Tl	New	0.05
		Existing	0.05
Total organic compounds	N/A	New	10
		Existing	10
Ammonia	NH_3	New	10
		Existing	10
			ng I-TEQ /Nm³ under normal conditions of 10% O_2 , 273 Kelvin and 101.3 kPa.
Dioxins and furans	PCDD/PCDF	New	0.1
		Existing	0.1

Amendment of Category 5 of the List

8. Category 5 of the List is hereby amended by —

(a) the substitution for Subcategory 5.1, of the following Subcategory:

"(1) Subcategory 5.1: Storage and /or handling of Ore and Coal

Description:	Storage and/or handling of ore and coal not situated in a mining area as defined in the Mineral and Petroleum Resources Development Act		
Application:	Locations designed to hold or handle more than 100 000 tons per annum.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Dustfall	N/A	New	a
		Existing	a

[a] three months' running average not to exceed limit value for adjacent land use according to dust control regulations promulgated in terms of section 32 of the NEM: AQA, 2004 (Act 39 of 2004), in eight principal wind directions.

Amendment of Category 6 of the List

9. Category 6 of the List is hereby amended by the substitution for Category 6 of the following Category:

"Category 6: Organic Chemicals Industry

(1) Subcategory 6.1: Combustion Installations

Description:	Combustion installations including furnaces, heaters and boilers with a design capacity equal to or greater than 50 MW heat input.		
Application:	All furnaces; heaters and reactors.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 10% O_2, 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Particulate matter	N/A	New	70
		Existing	120
Oxides of nitrogen	NO_X expressed as NO_2	New	400
		Existing	1700
Sulphur dioxide	SO_2	New	1000
		Existing	1700

(2) Subcategory 6.2: Production and or Use of Lower Olefins

Description:	The production of lower olefins from virgin naphtha, natural gas, and gas oil. The use of lower olefins in manufacturing processes.		
Application:	All installations producing more than 100 tons per annum of lower olefins. All installations using more than 100 tons per annum of lower olefins.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

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

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
	N/A	New	150

Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOC's, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.";

(3) Subcategory 6.3: Production and or Use of Aromatics

Description:	The production of aromatic compounds. The use of aromatic compounds in manufacturing processes (including production of cyclohexane).
Application:	All installations producing more than 100 tons per annum of aromatic compounds. All installations using more than 100 tons per annum of aromatic compounds.

Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

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

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units	
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3	
Substance or mixture of substances		

Common name	Chemical symbol	Plant status	mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, the license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(4) Subcategory 6.4: Production and or Use of Oxygenated Compounds

Description:	The production of oxygenated compounds. The use of oxygenated compounds in manufacturing processes.		
Application:	All installations producing more than 100 tons per annum of oxygenated compounds. All installations using more than 100 tons per annum of oxygenated compounds.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

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

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(5) Subcategory 6.5: Production and or Use of Nitrogenated Compounds

Description:	The production of nitrogenated compounds (excluding explosive manufacturing processes). The use of nitrogenated compounds in manufacturing processes (excluding explosive manufacturing processes).		
Application:	All installations producing more than 100 tons per annum of nitrogenated compounds. All installations using more than 100 tons per annum of nitrogenated compounds.		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		

Description:	The production of nitrogenated compounds (excluding explosive manufacturing processes). The use of nitrogenated compounds in manufacturing processes (excluding explosive manufacturing processes).
Application:	All installations producing more than 100 tons per annum of nitrogenated compounds. All installations using more than 100 tons per annum of nitrogenated compounds.

Acrylonitrile	CH_2CHCN	New	5
		Existing	5
Methylamines (from nitrogen- containing organic chemicals)	CH_5N	New	10
		Existing	10
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non-thermal)	N/A	New	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(6) Subcategory 6.6: Production and or Use of Halogenated Compounds

Description:	Production of halogenated compounds. The use of halogenated compounds in manufacturing processes.
Application:	All installations producing more than 100 tons per annum of halogenated compounds. All installations using more than 100 tons per annum of halogenated compounds.

Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Sulphur trioxide (from sulphonation processes)	SO_3	New	30
		Existing	100
Acrylonitrile (from processes producing and/or using acrylonitrile).	CH_2CHCN	New	5
		Existing	5
Methylamines (from nitrogen- containing organic chemicals)	CH_5N	New	10
		Existing	10
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non-thermal)	N/A	New	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3

Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m³ per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m³		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, the license holder must, within 12 months of the promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(7) Subcategory 6.7: Production and or Use of Sulphur Containing Compounds

Description:	Production of sulphur containing organic compounds. The use of sulphur containing organic compounds in manufacturing processes.
Application:	All installations producing more than 100 tons per annum of sulphur containing organic compounds. All installations using more than 100 tons per annum of sulphur containing organic compounds.

Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Sulphur trioxide (from sulphonation processes)	SO_3	New	30
		Existing	100
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non-thermal)	N/A	New	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.

True vapour pressure of contents at product storage temperature	Type of tank or vessel
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m³ per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m³		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted,

all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(8) Subcategory 6.8: Production and or Use of Organo-metallic Compounds

Description:	Production of organometallic compounds. The use of organometallic compounds in manufacturing processes.
Application:	All installations producing more than 100 tons per annum of organometallic compounds. All installations using more than 100 tons per annum of organometallic compounds.

Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(9) Subcategory 6.9: Polymers – Production of Polyolefins

Description:	The production of polyolefins.		
Application:	All installations producing more than 100 tons per annum of polyolefins.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.

True vapour pressure of contents at product storage temperature	Type of tank or vessel
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting

pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(10) Subcategory 6.10: Polymers – Production of Polysterene

Description:	The production of polysterene.		
Application:	All installations producing more than 100 tons per annum of polysterene.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3

Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(11) Subcategory 6.11: Polymers – Production of Polyesters

Description:	The production of polyesters.		
Application:	All installations producing more than 100 tons per annum of polyesters.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3

Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m³ per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m³		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(12) Subcategory 6.12: Polymers – Production of Polyamides

Description:	The production of polyamides.		
Application:	All installations producing more than 100 tons per annum of polyamides.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Methylamines (from nitrogen- containing organic chemicals)	CH_5N	New	10
		Existing	10
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non-thermal)	N/A	New	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3

Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m³ per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m³		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(13) Subcategory 6.13: Polymers – Production of Polyvinyl Chloride

Description:	Production of vinyl chloride.		
Application:	All installations producing more than 100 tons per annum of vinyl chloride.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or

	c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must,

within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(14) Subcategory 6.14: Polymers –Production of Polyvinyl Acetate

Description:	The production of polyvinyl acetate		
Application:	All installations producing more than 100 tons per annum of polyvinyl acetate.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(15) Subcategory 6.15: Polymers – Production of Polyvinyl Alcohol

Description:	The production of polyvinyl alcohol.		
Application:	All installations producing more than 100 tons per annum of polyvinyl alcohol.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(16) Subcategory 6.16: Polymers – Production of Polyacrylonitrile

Description:	The production of polyvinyl alcohol.	
Application:	All installations producing more than 100 tons per annum of polyacrylonitrile.	
Substance or mixture of substances		

Common name	Chemical symbol	Plant status	mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non-thermal)	N/A	New	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour

pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m³ per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m³		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.1.

(17) Subcategory 6.17: Polymers – Production of Polytetrafluoro Ethylene

Description:	The production of polytetraflouro ethylene.		
Application:	All installations producing more than 100 tons per annum of polytetraflouro ethylene.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(18) Subcategory 6.18: Polymers – Production of Polymethyl Methacrylate

Description:	The production of polymethyl methacrylate.		
Application:	All installations producing more than 100 tons per annum of polymethyl methacrylate.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units

Application:	All loading/ offloading facilities with a throughput greater than 50 000 m³		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(iii) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(iv) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, the license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(19) Subcategory 6.19: Polymers – Production of Emulsion Polymerised Styrene Butadiene Rubber

Description:	The production of emulsion polymerized butadiene rubber.		
Application:	All installations producing more than 100 tons per annum of of emulsion polymerized butadiene rubber.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3

Substance or mixture of substances		Plant status	mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.1.

(20) Subcategory 6.20: Polymers – Production of Solution Polymerised Rubber Containing Butadiene

Description:	The production of solution polymerized rubber containing butadiene.		
Application:	All installations producing more than 100 tons per annum of solution polymerized rubber containing butadiene.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units	
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3	
Substance or mixture of substances		

Common name	Chemical symbol	Plant status	mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, a person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(21) Subcategory 6.21: Polymers – Production of Butadiene Rubber

Description:	The production of butadiene rubber.		
Application:	All installations producing more than 100 tons per annum of butadiene rubber.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units	
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3	
Substance or mixture of substances		

Common name	Chemical symbol	Plant status	mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(22) Subcategory 6.22: Polymers – Production of Ethylene- Propylene Diene Monomer Rubber

Description:	The production of solution ethylene propylene diene monomer rubber.		
Application:	All installations producing more than 100 tons per annum of ethylene propylene diene monomer rubber.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units	
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3	
Substance or mixture of substances		

Common name	Chemical symbol	Plant status	mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(iii) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(iv) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(23) Subcategory 6.23: Polymers – Production of Isobutylene -Isoprene Rubber

Description:	The production of isobutylene- isoprene rubber.		
Application:	All installations producing more than 100 tons per annum of isobutylene-isoprene rubber.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units	
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3	
Substance or mixture of substances		

Common name	Chemical symbol	Plant status	mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, a person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, the license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(24) Subcategory 6.24: Polymers –Production of Isoprene Rubber

Description:	The production of isobutylene- isoprene rubber.		
Application:	All installations producing more than 100 tons per annum of isoprene rubber.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
	N/A	New	150

Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(25) Subcategory 6.25: Polymers – Production of Chloroprene Rubber

Description:	The production of chloroprene rubber.		
Application:	All installations producing more than 100 tons per annum chloroprene rubber.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
	N/A	New	150

Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(26) Subcategory 6.25: Polymers – Production of Acrylonitrile- Butadiene Styrene

Description:	The production of acrylonitrile butadiene styrene.		
Application:	All installations producing more than 100 tons per annum of acrylonitrile butadiene styrene.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
	N/A	New	150

Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, a person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(27) Subcategory 6.27: Production of Acrylonitrile- Butadiene Rubber

Description:	The production of acrylonitrile-butadiene rubber.		
Application:	All installations producing more than 100 tons per annum of isobutylene-isoprene rubber.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
	N/A	New	150

Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, a person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(28) Subcategory 6.28: Polymers – Production of Synthetic Butadiene Rubber

Description:	The production of synthetic butadiene rubber.		
Application:	All installations producing more than 100 tons per annum of isobutylene-isoprene rubber.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
	N/A	New	150

Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, a person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(29) Subcategory 6.29: Polymers – Production of Styrenic Block Copolymer

Description:	The production of styrenic block copolymer.		
Application:	All installations producing more than 100 tons per annum of styrenic block copolymer.		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m³		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m³ per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, a person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(30) Subcategory 6.30: Polymers – Production of Polyethylene Terephthalate Fibres

Description:	The production of polyethylene terephthalate fibres.		
Application:	All installations producing more than 100 tons per annum of any of polyethylene terephthalate fibres.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 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	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, a person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(31) Subcategory 6.31: Polymers – Production of Viscose Fibres

Description:	The production of viscose fibres.		
Application:	All installations producing more than 100 tons per annum of any of viscose fibres.		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Sulphur trioxide (from sulphonation processes)	SO_3	New	30
		Existing	100
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non-thermal)	N/A	New	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units

Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(32) Subcategory 6.32: Production of Organic pigments and dyes

Description:	The production of organic pigments and dyes.		
Application:	All installations producing more than 100 tons per annum of organic pigments and dyes.		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Sulphur trioxide (from sulphonation processes)	SO_3	New	30
		Existing	100
Acrylonitrile (from processes producing and/or using acrylonitrile).	CH_2CHCN	New	5
		Existing	5
	CH_5N	New	10
		Existing	10
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150

Total volatile organic compounds (non-thermal)	N/A	New	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, that person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(33) Subcategory 6.33: Production of Surface - active Agents and Surfactants

Description:	The production of surface-active agents and surfactants		
Application:	All installations producing more than 100 tons per annum of surface-active agents and surfactants.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Sulphur trioxide (from sulphonation processes)	SO_3	New	30
		Existing	100

Acrylonitrile (from processes producing and/or using acrylonitrile).	CH_2CHCN	New	5
		Existing	5
	CH_5N	New	10
		Existing	10
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non-thermal)	N/A	New	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, a person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, the license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.

(34) Subcategory 6.34: Production and or Use of Carbon disulphide

Description:	Production of carbon disulphide. The use of carbon disulphide in manufacturing processes.
Application:	All installations producing more than 100 tons per annum of any of the listed compounds.

	All installations using more than 100 tons per annum of any of the listed compounds.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Sulphur trioxide (from sulphonation processes)	SO_3	New	30
		Existing	100
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non-thermal)	N/A	New	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature:–

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) –

(i) storage vessels for liquids shall be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	a. External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b. fixed-roof tank with internal floating deck / roof fitted with primary seal, or c. fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

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

(iii) 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units.

(ii) Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total volatile organic compounds from vapour recovery/ destruction units using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(iii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining TVOCs, with a collection efficiency of at least 95%, shall be fitted.

(d) The following special arrangements shall apply for the administration of the Atmospheric Emission License of the listed activity affected by this Notice:

(i) Where a person is conducting a listed activity under Category 6 of this Notice, a person must, within 12 months of promulgation of this Notice, apply for an atmospheric emission license in terms of Chapter 5 of the Act.

(ii) Where a license holder of a provisional atmospheric emission licence or atmospheric emission licence is listed under Category 6 of this Notice, that license holder must, within 12 months of promulgation of this Notice, submit the provisional atmospheric

emission license or atmospheric emission license for variation in terms of section 46 (1) (d) of the Act.";

Amendment of Category 7 of the List

10. Category 7 of the List is hereby amended by the substitution for Subcategory 7.2, of the following Subcategory:

"(2) Subcategory 7.2: Production of Acids

Description:	The production and/or use in manufacturing of hydrofluoric, hydrochloric, nitric and sulphuric acid (including oleum) in concentration exceeding 10%. Processes in which oxides of sulphur are emitted through the production of acid sulphites of alkalis or alkaline earths or through the production of liquid sulphur or sulphurous acid. Secondary production of hydrochloric acid through regeneration.
Application:	All installations producing and/or using more than 100 tons per annum of any of the listed compounds (Excluding metallurgical processes-related activities regulated under category 4).

Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Total fluoride measured as Hydrogen Fluoride (from processes in which HF is evolved)	F as HF	New	5
		Existing	30
Hydrogen chloride (from primary production of hydrochloric acid)	HCl	New	15
		Existing	25
Hydrogen chloride (from secondary production; and use in manufacturing of hydrochloric acid)	HCl	New	30
		Existing	100
Sulphur dioxide	SO_2	New	350
		Existing	2800
Sulphuric acid mist and sulphur trioxide expressed as SO_3 (from processes in which SO_3 is evolved).	SO_3	New	25
		Existing	100
Oxides of nitrogen expressed as NO_2	NO_X	New	350

Amendment of Category 9 of the List

11. Category 9 of the List is hereby amended by —

(a) the substitution for Subcategory 9.4, of the following Subcategory:

"(4) *Subcategory 9.4: Chlorine Dioxide Plants*

Description:	Production and or use of chlorine dioxide for pulp and/or paper production.		
Application:	All installations.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Hydrogen chloride	HCl	New	15
		Existing	30

(b) the substitution for Subcategory 9.5, of the following Subcategory:

"(5) Subcategory 9.5: Wood Drying; and the Production of Manufactured Wood Products

Description:	The drying of wood using directly fired kilns; and 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/Nm³ under normal conditions of 10% O_2 , 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Particulate matter	N/A	New	150
		Existing	200
Oxides of nitrogen	NO_X expressed as NO_2	New	500
		Existing	700

Amendment of Category 10 of the List

12. Category 10 of the List is hereby amended by the substitution for Subcategory 10, of the following Subcategory:

"(1) *Subcategory 10.1: Animal Matter Processing*

Description:	Processes for the rendering, cooking, drying, dehydrating, digesting, evaporating or protein concentrating of any animal matter not intended for human consumption.		
Application:	All installations handling more than 1 ton of raw materials per day.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of, 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Hydrogen Sulphide	H_2S	New	5

		Existing	5
Ammonia	NH_3	New	10
		Existing	10
Total Volatile Organic Compounds	N/A	New	10
		Existing	10

(a) The following special arrangement shall apply –

(i) Best practice measures intended to minimize or avoid offensive odours must be implemented by all installations. These measures must be documented to the satisfaction of the Licensing Authority maybe submitted as part of odour management plan.

(ii) Process equipment emitting fugitive odorous substances shall be sealed or covered to channel the emissions to the extraction system which shall be connected to the odour abatement equipment.

(b) The following transitional arrangement shall apply –

(i) All facilities that obtained environmental authorization before promulgation of this notice must, within 5 years of promulgation of this Notice comply with the Minimum Emissions Standards under this Category.

Facilities that obtain environmental authorization after the promulgation of this Notice must immediately comply with the Minimum Emission Standards under this Category.

	Dust fallout	SANS 1137/ASTM D1739	Standard Test Method for Collection and Measurement of Dustfall (Settleable Particulate Matter)
Opacity	Opacity	USEPA Method 9	Visual determination of the opacity of emissions