CITY OF TSHWANE
IGNITING EXCELLENCE

Environment and Agriculture Management Department

Room CP 46 | Tshwane House | Ground Floor, Block A | 320 Madiba Street | Pretoria | 0002
P O Box 1454 | Pretoria | 0001
Tel: 012 358 3725[redacted] | www.tshwane.gov.za | www.facebook.com/ City Of Tshwane

ATMOSPHERIC EMISSION LICENCE AS CONTEMPLATED IN SECTION 40 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004, (ACT NO. 39 OF 2004)

The Atmospheric Emission Licence issued to **Sasol Oil (Pty) Ltd - Pretoria West)** in terms of section 40 (1) (a) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), in respect of the following Listed Activity:

- **Subcategory 2.4: Storage and Handling of Petroleum Products**

The Atmospheric Emission Licence has been issued on the basis of information provided during the company's application including information that became available during a site inspection.

The Atmospheric Emission Licence is valid until **31 March 2027.**

The reason for issuance of the current licence is to ensure compliance with the terms of section 41 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).

The Atmospheric Emission Licence is issued subject to the conditions and requirements set out below which form part of the Atmospheric Emission Licence which are binding on the holder of the Atmospheric Emission Licence ("**Sasol Oil (Pty) Ltd – Pretoria West**").

1. ATMOSPHERIC EMISSION LICENCE ADMINISTRATION

Name of the Licensing Authority	City of Tshwane
Atmospheric Emission Licence Number	**9/16/1/2/4/R**
Atmospheric Emission Licence Issue Date	17/03/2022
Atmospheric Emission Licence Type	Atmospheric Emission Licence
Review Date, not later than	**30 September 2026**

[redacted]

17/03/2022
Date

2. ATMOSPHERIC EMISSION LICENCE HOLDER DETAILS

Enterprise Name	Sasol Oil (Pty) Ltd.
Trading as	Sasol Oil (Pty) Ltd
Enterprise Registration Number (Registration Numbers if Joint Venture)	1981/007622/07
Registered Address	117 Industrial Road, Pretoria West
Postal Address	P O Box 1170, Pretoria, 0001
Telephone Number (General)	012 386 5298
Industry Sector	Petroleum Field
Name of Responsible Officer	[redacted]
Name of Emission Control Officer	
Telephone Number	
Cell Phone Number	
Fax Number	
Email Address	
After Hours Contact Details	
Land Use Zoning as per Town Planning Scheme	N/A

3. LOCATION AND EXTENT OF PLANT

Physical Address of the Premises	117 Industrial Road, Pretoria West
Description of Site (Erf)	n/a
Coordinates of Approximate Centre of Operations	[redacted]
Extent (Ha)	26 678m²
Elevation Above Mean Sea Level (m)	1 350m
Province	Gauteng
Metropolitan/District Municipality	City of Tshwane

[redacted]

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4. GENERAL CONDITIONS

4.1 Process and Ownership Changes

(a) The holder of the Atmospheric Emission Licence must ensure that all unit processes and apparatus used for the purpose of undertaking the listed activity in question, and all appliances and mitigation measures for preventing or reducing atmospheric emissions, are at all times properly maintained and operated.

(b) No building, plant or site of works related to the listed activity or activities used by the licence holder shall be extended, altered or added to the listed activity without an environmental authorisation from the competent authority, if it meets minimum extension requirements in terms of EIA regulations. The investigation, assessment and communication of potential impact of such an activity must follow the basic assessment procedure as prescribed in the Environmental Impact Assessment Regulations published in terms of section 24(5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), as amended.

(c) Any changes in processes or production increases, by the licence holder, will require prior approval by the City of Tshwane.

(d) Any changes to the type and quantities of input materials and products, or to production equipment and treatment facilities will require prior written approval by the City of Tshwane.

(e) The licence holder must, in writing, inform the licensing authority of any change of ownership of the enterprise. The City of Tshwane must be informed within 30 (thirty) days after the change of ownership.

(f) The licence holder must immediately on cessation or decommissioning of the listed activity inform, in writing, the City of Tshwane.

4.2 General Duty of Care

(a) The holder of the license must, when undertaking the listed activity, adhere to the duty of care obligations as set out in section 28 of the NEMA.

(b) The license holder must undertake the necessary measures to minimize or contain the atmospheric emissions. The measures are set out in section 28(3) of the NEMA.

(c) Failure to comply with the above condition is a breach of the duty of care, and the license holder will be subject to the sanctions set out in section 28 of the NEMA.

4.3 Sampling and/or analysis requirements

(a) Measurement, calculation and/or sampling and analysis shall be carried out in accordance with any nationally or internationally acceptable standard. A different method may be acceptable to the City of Tshwane as long as it has been consulted and agreed to the satisfactory documentation necessary in confirming the equivalent test reliability, quality and equivalence of analyses.

(b) The licence holder is responsible for quality assurance of methods and performance. Where the holder of the licence uses external laboratories for sampling or analysis, accredited laboratories shall be used.

[redacted]

4.4 General Requirements for Licence Holder

(a) The licence holder is responsible for ensuring compliance with the conditions of this licence by any person acting on his, her or its behalf, including but not limited to, an employee, agent, sub-contractor or person rendering a service to the holder of the licence.

(b) This licence does not relieve the licence holder to complying with any other statutory requirements that may be applicable to the carrying on of the listed activity.

(c) A copy of the licence must be kept at the premises where the listed activity is undertaken. The licence must be made available to the environmental management inspector representing the licensing authority who requests to see it.

(d) The licence holder must inform, in writing, the City of Tshwane of any change to its details including the name of the emission control officer, postal address and/or telephonic details.

4.5 Statutory Obligations

The licence holder must comply with the obligations as set out in Chapter 5 of the Act.

5. NATURE OF PROCESS

5.1 Process Description

The Sasol Pretoria west facility receives several petroleum products namely Low Sulphur Heavy Fuel Oil and Cat light which are then stored in several tanks. The products are then dispensed via tankers to the customers according to their specification. The product is received and dispensed at the gantry. The products are Low Sulphur Heavy Fuel Oil and Cat light. There is a small heat exchanger that is used to heat some Low Sulphur Heavy Fuel Oil to an optimal temperature before it is dispensed. The heat exchanger is ignited with LPG and thus there are two LPG tanks on site. The site consists of generators which are used to pump emergency water there are diesel storage tanks onsite to cater for the generators.

5.2 Listed Activity or Activities

Listed Activity Number	Category of Listed Activity	Sub-category of the Listed Activity	Listed Activity Name	Description of the Listed Activity
2	2	2.4	Storage and handling of Petroleum Products	All permanent immobile liquid storage facilities at a single site with a combined storage capacity greater than 1000 cubic meters.

[redacted]

5.3 Unit Process or Processes

Unit Process	Function of Unit Process	Batch or Continuous Process
Storage Tanks	Storage of bulk fuel products.	Continuous
Loading Gantry	Dispensing of the bulk fuel products into the Road Tankers used in the primary activity of delivering the bulk products to the MBT clients.	Batch
Offloading Gantry	Transfer of the bulk product from the road tankers to the bulk storage tanks.	Batch

5.4 Hours of Operation

Unit Process / Plant	Operating Hours	No. Days Operation per Year
Storage Tanks	24 hours	365
Loading Gantry	24 hours	365
Offloading Gantry	24 hours	365

[redacted]

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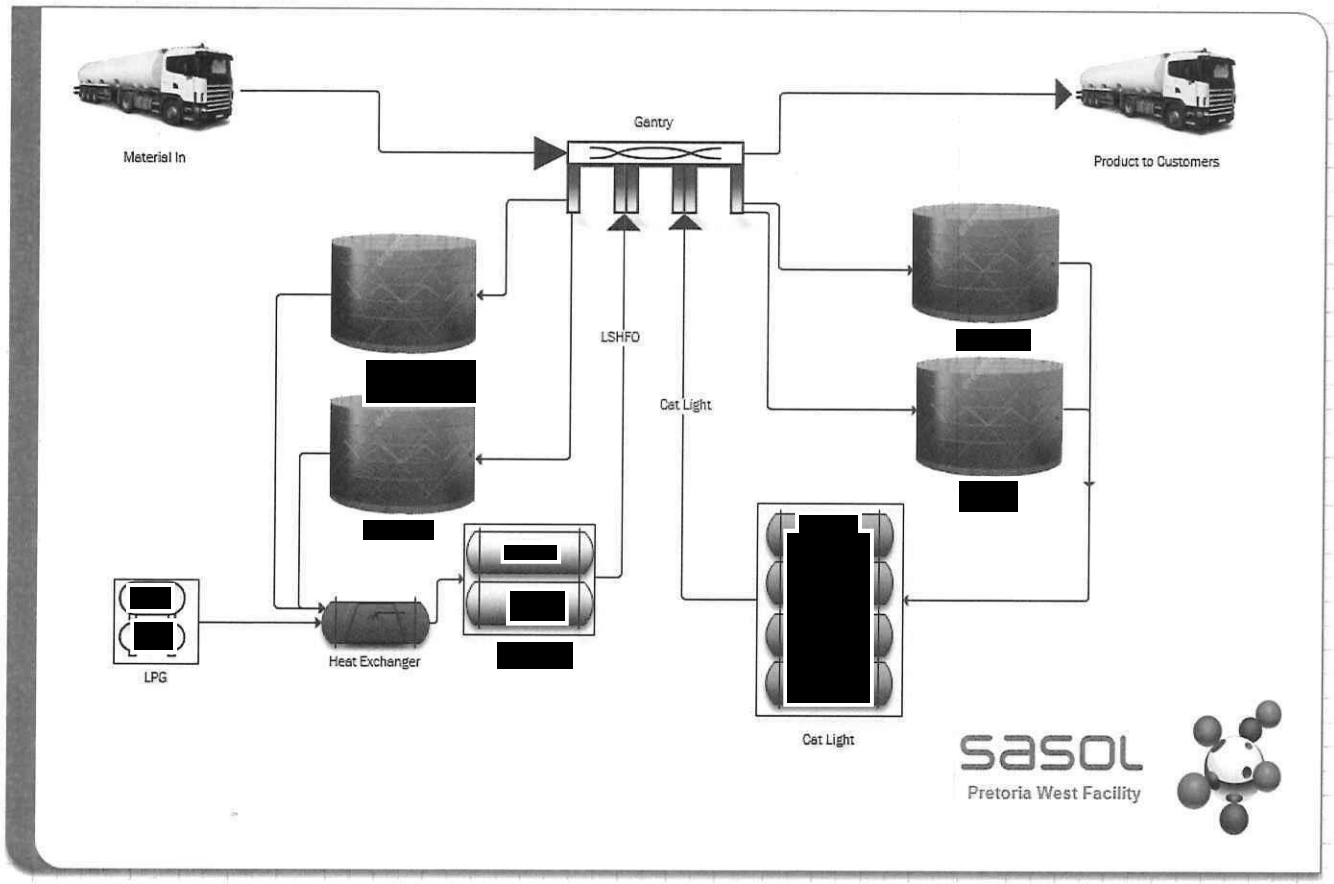
5.5 Graphical Process Information



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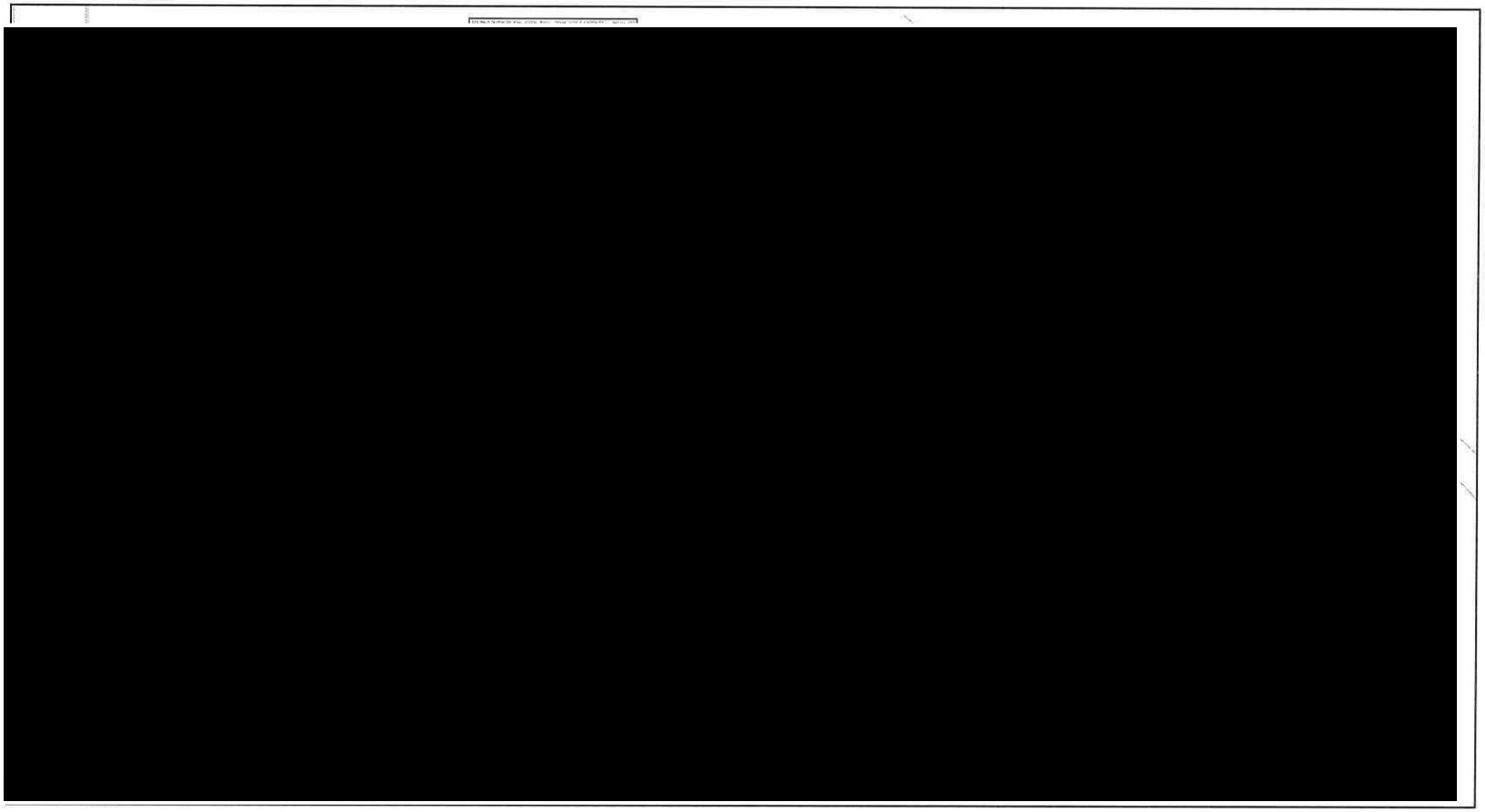
5.5.1 Site Layout Plan



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6. RAW MATERIALS AND PRODUCTS

6.1. Raw Materials Used

Raw Material Type	Maximum Permitted Consumption Rate (Volume)	Design Consumption Rate (Volume)	Actual Consumption Rate (Volume)	Units (quantity/period)
Cat Light	4461	4425	4000	m^3/annum
Low Sulphur Heavy Fuel Oil (LSHFO)	4409	4271	4000	m^3/annum
Light Cycle Oil (LCO)	100	90	90	m^3/annum
Waxy Oil 12 (WO12)	200	180	180	m^3/annum
Black Illuminating Paraffin (BIP)	100	90	90	m^3/annum

6.2. Production Rates

Raw Material Type	Maximum Permitted Consumption Rate (Volume)	Design Consumption Rate (Volume)	Actual Consumption Rate (Volume)	Units (quantity/period)
Cat Light	4461	4425	4000	m^3/annum
Low Sulphur Heavy Fuel Oil (LSHFO)	4409	4271	4000	m^3/annum
Light Cycle Oil (LCO)	100	90	90	m^3/annum
Waxy Oil 12 (WO12)	200	180	180	m^3/annum
Black Illuminating Paraffin (BIP)	100	90	90	m^3/annum

6.3. Energy Sources Used

Energy Source	Actual Consumption Rate (volume)	Units (quantity/period)
Electricity	600	MW/annum
Diesel	328	M3/annum
LPG	10.24	M3/annum

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6.4. Sources of Atmospheric Emission

6.4.1 Point Source Parameters

Point Source code	Source name	Latitude (decimal degrees)	Longitude (decimal degrees)	Height of Release Above Ground (m)	Height Above Nearby Building (m)	Diameter at Stack Tip / Vent Exit (m)	Actual Gas Exit Temperature (°C)	Actual Gas Volumetric Flow (m^3/hr)	Actual Gas Exit Velocity (m/s)
[redacted]	Horizontal fixed roof LSHFO tank	[redacted]		[redacted]	N/a	N/a	N/a	N/a	N/a
	Horizontal fixed roof LSHFO tank				N/a	N/a	N/a	N/a	N/a
	Horizontal fixed roof WO12 tank				N/a	N/a	N/a	N/a	N/a
	Horizontal fixed roof WO12 tank				N/a	N/a	N/a	N/a	N/a
	Horizontal fixed roof LCO tank				N/a	N/a	N/a	N/a	N/a
	Horizontal fixed roof BIP tank				N/a	N/a	N/a	N/a	N/a
	Vertical fixed roof LSHFO tank				N/a	N/a	N/a	N/a	N/a
	Vertical fixed roof Cat Light tank				N/a	N/a	N/a	N/a	N/a
	Vertical fixed roof Cat Light tank				N/a	N/a	N/a	N/a	N/a
	Vertical fixed roof LSHFO tank				N/a	N/a	N/a	N/a	N/a
Gantry	Gantry road loading				N/a	N/a	N/a	N/a	N/a

Point Source code	Source name	Latitude (decimal degrees)	Longitude (decimal degrees)	Height of Release Above Ground (m)	Height Above Nearby Building (m)	Diameter at Stack Tip / Vent Exit (m)	Actual Gas Exit Temperature (°C)	Actual Gas Volumetric Flow (m^3/hr)	Actual Gas Exit Velocity (m/s)
[redacted]	Horizontal fixed roof LPG	[redacted]		1.6	N/a	N/a	N/a	N/a	N/a
	Horizontal fixed roof LPG			1.6	N/a	N/a	N/a	N/a	N/a

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6.4.2 Point Source Emissions

Point Source code	Pollutant Name	Maximum Hourly Release Rate			Maximum Daily Release Rate			Average Annual Release Rate			Emission Hours	Type of Emission (Continuous / routine but intermittent / emergency only)
		(mg/Nm³)	(mg/Am³)	(mg/s)	(mg/Nm³)	(mg/Am³)	(tons/day)	(mg/Nm³)	(mg/Am³)	(tpa)		
[redacted]	VOCs	527.3	412.36	60.8	12655	9896.42	0.157594	4619075	3612194.5	57.52	24 hours	Continuous
	VOCs	721.8	564.46	62.6	17322.7	13546.64	0.162259	6322771	4944513.6	59.22	24 hours	Continuous
	VOCs	348.33	272.40	42.3	8360	6537.66	0.109693	3051400	2386246.3	40.04	24 hours	Continuous
	VOCs	70.4	55.05	6.11	1689	1320.83	0.015837	616485	482101.7	5.78	24 hours	Continuous
	VOCs	123.1	96.27	14.3	2954	2310.08	0.037066	1078210	843178.4	13.53	24 hours	Continuous
	VOCs	54.96	42.98	4.75	1319.2	1031.64	0.012312	481508	376547.4	4.49	24 hours	Continuous
	VOCs	40.67	31.80	13.96	976.3	763.48	0.036184	356349.5	278671.3	13.21	24 hours	Continuous
	VOCs	329.6	257.75	113.1	7911.9	6187.24	0.293155	2887847	2258345.1	107	24 hours	Continuous
	VOCs	369.3	288.80	167.31	8865	6932.58	0.433668	3235725	2530391.6	158.28	24 hours	Continuous
	VOCs	4.7	3.68	1.61	113	88.37	0.004173	41245	32254.3	1.523	24 hours	Continuous
	VOCs	12.9	10.09	0.28	309.8	242.27	0.000726	113062.4	88416.7	0.265	24 hours	Routine but intermittent
	VOCs	21.81	17.06	0.239	523.57	409.44	0.000619	191103.1	149445.9	0.226113	24 hours	Routine but intermittent
Gantry	VOCs	2.02E-04	0.00	4.97E-07	8.42E-06	0.00	1.29E-09	0.07373	0.06	4.7E-07	24 hours	Routine but intermittent

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6.4.3 Area and/or Line Source Parameters

Area Source code	Description of Specific Measures	Required Control Efficiency (%)	Timeframe for Achieving Required Control Efficiency	Method of Monitoring Measure Effectiveness	Contingency Measure
N/a	N/a	N/a	N/a	N/a	N/a

6.4.4 Point Source Emissions

Area Source code	Pollutant Name	Maximum Hourly Release Rate (mg/s)	Maximum Daily Release Rate (kg/day)	Maximum Release Rate (kg/month)	Average Annual Release Rate (kg/annum)	Emission Hours	Types of Emission (Continuous/Intermittent)	Wind Dependent (yes/no)
	LSHFO and Cat light – All Products							
[redacted]	TVOC	176	15.206	456.19	16510.080	24 hours	Continuous	No
	Benzene	0.62	0.054	1.61	586.570			
	Ethylbenzene	0.91	0.079	2.359	860.933			
	Toluene	3.7	0.320	9.59	3500.496			
	Xylene (-m)	4.567	0.395	11.84	4320.747			
	Product Receiving Emissions – All Products							
	TVOC	4.99E-07**	4.99E-07**	4.99E-07**	4.99E-07**	24 hours per 7-day receipt cycle	Routine but Intermittent	No
	Benzene	4.99E-07**	4.99E-07**	4.99E-07**	4.99E-07**			
	Ethylbenzene	4.99E-07**	4.99E-07**	4.99E-07**	4.99E-07**			
	Toluene	4.99E-07**	4.99E-07**	4.99E-07**	4.99E-07**			
	Xylene (-m)	4.99E-07**	4.99E-07**	4.99E-07**	4.99E-07**			

[redacted]

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Area Source code	Pollutant Name	Maximum Hourly Release Rate (mg/s)	Maximum Daily Release Rate (kg/day)	Maximum Release Rate (kg/month)	Average Annual Release Rate (kg/annum)	Emission Hours	Types of Emission (Continuous/Intermittent)	Wind Dependent (yes/no)
LPG storage Emissions – All Products								
[redacted]	TVOC	2.82E-01	0.024	0.731	266.795	24 hours	Routine but Intermittent	No
	Benzene	2.55E-05	2.20E-06	6.61E-05	0.024			
	Ethylbenzene	4.55E-03	3.93E-04	0.012	4.305			
	Toluene	2.85E-03	2.46E-04	0.007	2.696			
*** Below Detection Level*								

[redacted]

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7. APPLIANCES AND MEASURES TO PREVENT AIR POLLUTION

7.1 Appliances and Control Measures

Appliances				Air Pollution Control Technology								Associated Source Code
Appliance / Process Equipment Number	Appliance Type / Description	Appliance Serial Number	Appliance Manufacture Date	Product Name and Model	Technology Type	Commission Date	Date of Significant Modification / Upgrade	Design Capacity	Nominal Capacity	Permitted Minimum Control Efficiency (%)	Permitted Minimum Utilization (%)	
LSHFO Cat light and BIP												
Tank 2 - 9	LSHFO and Cat light storage tanks	N/A	No special measures required due to the product having a true vapour pressure of less than 14 kPa at storage and handling temperatures - Leak detection & Tank level gauges.									N/A
LPG (internal floating roof tank)												
10A & 10B	LPG storage tanks	N/A	No special measures required due to the product having a true vapour pressure of less than 14 kPa at storage and handling temperatures - Leak detection & Tank level gauges.									N/A
LSHFO, Cat Light and BIP												
Gantry	Loading gantry	001	No special measures required due to the product having a true vapour pressure of less than 14 kPa at storage and handling temperatures - Leak detection & Tank level gauges.									N/A

[redacted]

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7.2 Point source – Maximum Emission Rates (under normal working conditions)

Point Source Code	Listed Activity No.	Pollutant Name	Maximum Release Rate			Duration of Emissions
			(mg/Nm³)	Date to be Achieved By	Average Period	
[redacted]	2.4	Total Volatile Organic Compounds from vapour recovery /destruction units using thermal treatment.	150	Immediately	Daily	Continuous
		Total Volatile Organic Compounds from vapour recovery/ destruction units using non-thermal treatment.	40 000	Immediately	Daily	Continuous

Point source –operating requirements:

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

i) Leak Detection and Repair (LDAR) program to be submitted 6 months after the receipt of this licence to the licensing authority for approval.

(b) The following special arrangement shall apply for control of Total Volatile Organic Compound(TVCO) from storage, loading and unloading of raw materials, intermediate and final products with a vapour pressure of >14kPa at operating temperature, except during loading and unloading. 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:

True vapour of contents at storage temperature:

- Type of tank or vessel
- Up to 14kPa
- Fixed roof tank vented to atmosphere or as per type 2 & 3

(c) The following special arrangement shall apply for control of TVOCs from loading and unloading (excluding ships) of raw material, 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 5000 m^3 per annum of products with a vapour pressure greater than 14kPa, must be fitted with vapour recovery units.

i) Loading/unloading: All liquid product with a vapour pressure above 14 kPa shall be loaded/unloaded using bottom loading, with vent pipe connected to a gas balancing line. Vapours expelled during loading operations must be returned to the loading tank if it is of the fixed roof type where it can be stored prior to vapour recovery or destruction. Where vapour balancing and/or bottom loading is not possible, a recovery system utilising absorption, absorption and condensation and/or incineration of the remaining VOCs, with a collection efficiently of at least 95% shall be fitted.

7.3 Point Source – Maximum Permissible Emission Rates (Under Start Up, Maintenance and Shut - Down Conditions)

Should normal start up, maintenance and shutdown conditions exceed a period of 48 hours, Section 30 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), shall apply.

7.4 Area / Point Sources – Emission Monitoring and Reporting Requirements

Point/Area Source Code	Emission Sampling / Monitoring Method	Sampling Frequency	Sampling Duration	Parameters to be Measured	Parameters to be Reported	Reporting Frequency
	Continuous Emission Monitoring	Continuous Monitoring	As required in Part 2 GN 893 of 22 November 2013 as amended.	Air pollutants listed in section 7.2 of the licence.	Air pollutants listed in section 7.2 of the licence.	Annual

[redacted]

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All point and area sources	Continuous Emission Monitoring	Continuous Monitoring	As required in Part 2 GN 893 of 22 November 2013 as amended.	Air pollutants listed in section 7.2 of the licence.	Air pollutants listed in section 7.2 of the licence.	Annual
Facility Fence line	Passive badge sampling	Annually	12 months	BTEX	BTEX	Annual
Facility area	LDAR (Leak detection & repair program)	Annually	One day	TVOCS	TVOCS	Annual

7.5 Area and/or Line Source – Management and Mitigation Measures

Point/Area Source Code	Area /Line source description	Description of specific measure	Time frame for achieving required control efficiency	Reporting Frequency
All decanting and loading points	Fugitive VOC emission from tanks	Insatallation of floating roofs on all tanks	18 months	Monitor product retainement & leak detection

7.6 Abnormal Releases and Emergency Responses

Unit Process	Description of Nature of Potential Abnormal Release	Pollutant(s) Released	Briefly Outline Emergency Procedures
[redacted] Storage Tanks	Vent	VOC	Maintenance Manager will appoint Maintenance Team
[redacted] Gantry	Vent	VOC	Maintenance Manager will appoint Maintenance Team
[redacted]	Vent	VOC	Maintenance Manager will appoint Maintenance Team

[redacted]

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7.6 Routine Reporting and Record-keeping

Complaints Register

The licence holder must maintain a complaint register at its premises, and such register must be made available for inspections. The complaint register must include the following information on the complainant, namely, the name, physical address, telephone number, date and the time when the complaint was registered. The register should also provide space for noise, dust and offensive odours complaints.

Furthermore, the licence holder is to investigate and report to the licencing authority in a summarised format on the total number of complaints logged. The complaints must be reported in the following format with each component indicated as may be necessary:

(a) Source code / name;
(b) Root cause analysis;
(c) Measures implemented or to be implemented to prevent recurrence; and
(d) Date by which measure will be implemented.

The licensing authority must also be provided with a copy of the complaint register. The record of a complaint must be kept for at least 5 (five) years after the complaint was made.

Annual Reporting

The licence holder must complete an annual report and upload it to the SAAELIP. The report must include information for the year under review. The report must be submitted to the City of Tshwane not later than the 31 December after the end of each reporting period. The annual report must include, amongst others, the following items:

(a) Pollutants emission trend;

(b) Compliance audit report(s);

(c) Major upgrades projects (i.e. abatement equipment or process equipment); and

(d) Greenhouse gas emissions.

Licence holder is also required to report on the National Atmospheric Emission Inventory System (NAEIS) from the 1 January – 31 March of each year. The holder of the licence must keep a copy of the annual report for a period of at least 5 (five) years.

[redacted]

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7.7 Investigation

No investigations required.

8. Disposal of Waste and Effluent Arising from Abatement Equipment Control Technology

The facility is required to provide details of the method of disposal of the soil and/or water contaminated with petroleum products onsite within six months of the issue of this licence.

9. Penalties for Non-compliance with Licence Conditions or Requirements

Failure to comply with any of the licence and relevant statutory conditions and/or requirements is an offence, and licence holder, if convicted, will be subjected to those penalties as set out in section 52 of the AQA.

[redacted]

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