

# Gert Sibande District Municipality

## Office hours:

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The Municipal Manager  
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2350



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## ATMOSPHERIC EMISSION LICENCE AS CONTEMPLATED IN SECTION 43 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004, (ACT NO. 39 OF 2004) (NEMAQA) AS AMENDED

I, **Tsunke Daniel Hlanyane**, in my capacity as **License Officer** (hereinafter referred to as "the Licensing Authority"), in terms of section 43 of the National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004, hereinafter referred to as the "Act"), and as provided for in section 36(1) of the Act, hereby grant an Atmospheric Emission Licence to **Sasol South Africa Ltd: Secunda Chemicals Operations- Site Services Division** ("the Applicant)."

This Atmospheric Emission Licence is issued to **Sasol South Africa Ltd: Secunda Chemicals Operations- Site Services Division** in terms of section 41(1) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("the Act"), in respect of Listed Activity **Category 2: Sub-category 2.4 Storage and Handling of Petroleum Products**. The Atmospheric Emission Licence has been issued on the basis of information provided in the company's application dated **21 February 2019** and information that became available during processing of the application.

The Atmospheric Emission Licence is valid upon signature for a period not exceeding five (05) years from the date of issue of the licence. The reason issuance of the licence is for renewal. The Atmospheric Emission Licence is issued subject to the conditions and requirements set out below which form part of The Atmospheric Emission Licence and which are binding on the holder of the Atmospheric Emission Licence ("the holder").

### 1 ATMOSPHERIC EMISSION LICENCE ADMINISTRATION

Name of the Licensing Authority	Gert Sibande District Municipality
Atmospheric Emission Licence Number	Govan Mbeki/Sasol South Africa Ltd: Secunda Chemicals Operations- Site Services Division/0018/2019/F03
Atmospheric Emission Licence Issue Date	14 May 2019
Atmospheric Emission Licence Type	Renewal
Expiry date	14 May 2024

  
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## 2 ATMOSPHERIC EMISSION LICENCE HOLDER DETAILS

Enterprise Name	Sasol South Africa Ltd
Trading as	Secunda Chemicals Operations-Site Services Division
Enterprise Registration Number (Registration Numbers if Joint Venture)	1968/013914/06
Registered Address	Sasol Place 50 Katherine Street Sandton, Gauteng
Postal Address	Private Bag X1000 Secunda 2302
Telephone Number (General)	017 610 5105
Industry Sector	Petrochemical Products
Name of Emission Control Officer	Wilma Groenewald
Telephone Number	017 610 5105
Cell Phone Number	071 680 4315
Fax Number	Not Available
Email Address	<a href="mailto:wilma.groenewald@sasol.com">wilma.groenewald@sasol.com</a>
After Hours Contact Details	082 902 1789
Land Use Zoning as per Town Planning Scheme	Industrial Special

## 3. LOCATION AND EXTENT OF PLANT

### 3.1. Facility Address

Physical Address of the Premises	PDP Kruger Secunda 2302
Description of Site (Erf)	Highveld Ridge Mpumalanga
Coordinates of Approximate Centre of Operations	Latitude: --26.55305S Longitude: 29.1648E
Extent (km <sup>2</sup> )	24.05
Elevation Above Mean Sea Level (m)	1597m
Province	Mpumalanga
Metropolitan/District Municipality	Gert Sibande District Municipality
Local Municipality	Govan Mbeki Local Municipality
Designated Priority Area	Highveld Priority Area

  
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### 3.2. Description of surrounding land use (within 5 km radius)



Figure 1: Google Earth Image of area surrounding the site (5km).

## 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. The investigation, assessment and communication of potential impact of such an activity must follow the 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 written approval by the licensing authority.
- (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 licensing authority.
- (e) The licence holder must, in writing, inform the licensing authority of any change of ownership of the enterprise. The licensing authority must be informed within thirty (30) working days after the change of ownership.
- (f) The licence holder must immediately on cessation or decommissioning of the listed activity inform, in writing the licensing authority.
- (g) The licence holder must notify the Licensing Authority in writing and submit the closure and rehabilitation plan three (3) months prior to the decommissioning of the facility.

  
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#### 4.2. General duty of care

- (a) The holder of the Licence must, when undertaking the listed activity, adhere to the duty of care obligations as set out in section 28 of the NEMA.
- (b) The Licence 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 as amended.
- (c) Failure to comply with the above condition is a breach of the duty of care, and the Licence holder will be subject to the sanctions set out in section 28 of the NEMA as amended including Part III Section 3 of Gert Sibande District Municipal Air Quality by-laws.

#### 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 in line with (Annexure A) of NEMAQA as amended.
- (b) Methods other than those contained in Annexure A of NEMAQA as amended may be used with the written consent of the National Air Quality Officer.
- (c) In seeking the written consent referred to in paragraph (b), an applicant must provide the National Air Quality Officer with any information that supports the equivalence of the method other than that contained in Annexure A to a method contained in Annexure A.
- (d) The licence holder is responsible for quality assurance of methods and performance. Where the holder of the licence uses internal or external laboratories for sampling or analysis, only accredited laboratories by the national accreditation body shall be used. The certified copy of accreditation of the internal or external laboratory must be submitted to the license authority annually including its external audits certification.
- (e) The licence holder must provide the licensing authority on request with raw data obtained during sampling and or analysis including proof of agreed methodology used to reach the final results submitted for compliance.

#### 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) The licence does not relieve the licence holder to comply 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 original licence must be made available to the Environmental Management Inspector / Air Quality Officer or an authorised officer representing the licensing authority who requests to see it.
- (d) The licence holder must inform, in writing, the licensing authority of any change to its details but not limited to the name of the Emission Control Officer, postal address and/or telephonic details within five (05) working days after such change has been effected.

  
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- (e) The Emission Control Officer or facility representative must attend the Highveld Priority Area Implementation Task Team or Air Quality Stakeholder Forum Meetings quarterly.
- (f) The licence holder must report and submit annual emission report on the National Atmospheric Emission Inventory System (NAEIS) for the preceding year in terms of GNR 283 in Government Gazette 38633 of 02 April 2015.
- (g) The licence holder must hold an environmental consultation meeting with affected and interested parties annually to give feedback on the impact of the facility on related matters, and must provide written prove of such consultation to the licensing authority annually.

#### **4.5. Statutory obligations**

The licence holder must comply with the obligations as set out in Chapter 5 of NEMAQA (Act no. 39 of 2004) as amended, Chapter 10 and 11 of the National Health Act 61 of 2003, National Environmental Management Act 108 of 1998 as amended, National Water Act No.36 of 1998, and National Waste Management Act No. 59 of 2008 including Gert Sibande District by-laws.

### **5 NATURE OF PROCESS**

#### **5.1 Process Description**

##### **5.1.1 Site Logistics**

Site logistics operates various loading facilities on behalf of the operating entities on site. The purpose of the loading facilities is to load petroleum, organic chemical and ammonia products from various tanks into the road and rail tankers for hauling to various destinations. The vapour recovery unit is used to control and reduce hydrocarbon emissions including total volatile organic compounds generated during loading of fuels into the road and rail tankers.

Different products are loaded on the different loading arms at different times.

  
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## 5.2 Listed activities

Listed Activity Number	Category of Listed Activity	Sub-category of the listed activity	Description of the Listed Activity	Application	SCO Site Processes	Site Services
2.4	Petroleum Industry	Storage and Handling of Petroleum Products	Petroleum product storage tanks and product transfer facilities, except those used for liquefied petroleum gas.	Petroleum product storage tanks and product transfer facilities, except those used for liquefied petroleum gas.	Site Logistics	

## 5.3 Unit process or processes

Unit process	Function of unit process	Batch or continuous process	Operating hours per day	No. days operation per year
<b>Site Logistics</b>				
Unit 057 road loading facility	Loading of petroleum and organic chemical products into the road tankers.	Batch	24	365
Unit 057 rail loading facility	Loading of petroleum and organic chemical products into the rail tankers.	Batch	12	365
Unit 257 high pressure rail loading facility	Loading of petroleum and organic chemical products into the rail tankers.	Batch	12	365
Tar naphtha extraction plant (TNPE) rail loading facility	This loading bay is used for offloading of raffinate and loading of tar acids	Batch	12	365



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5.4 Graphical Process Information

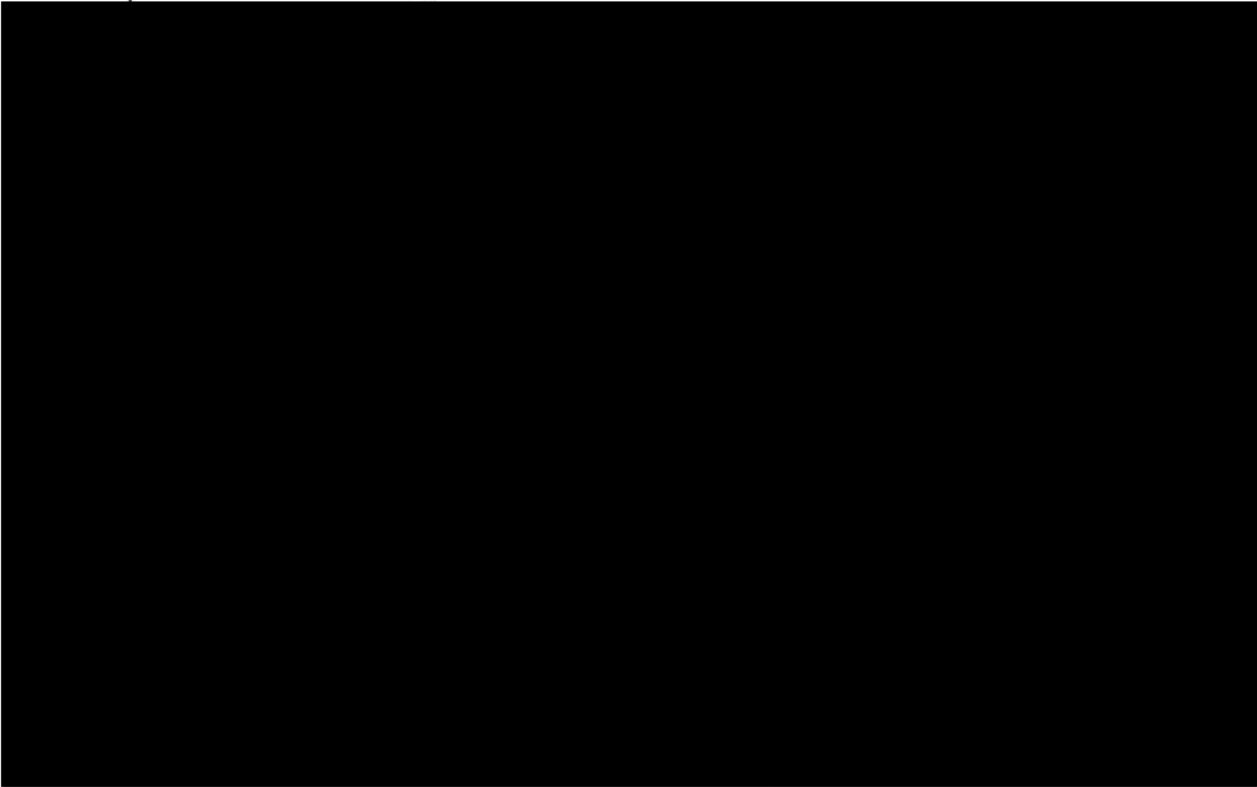


Figure 2: Unit 057 road loading facility

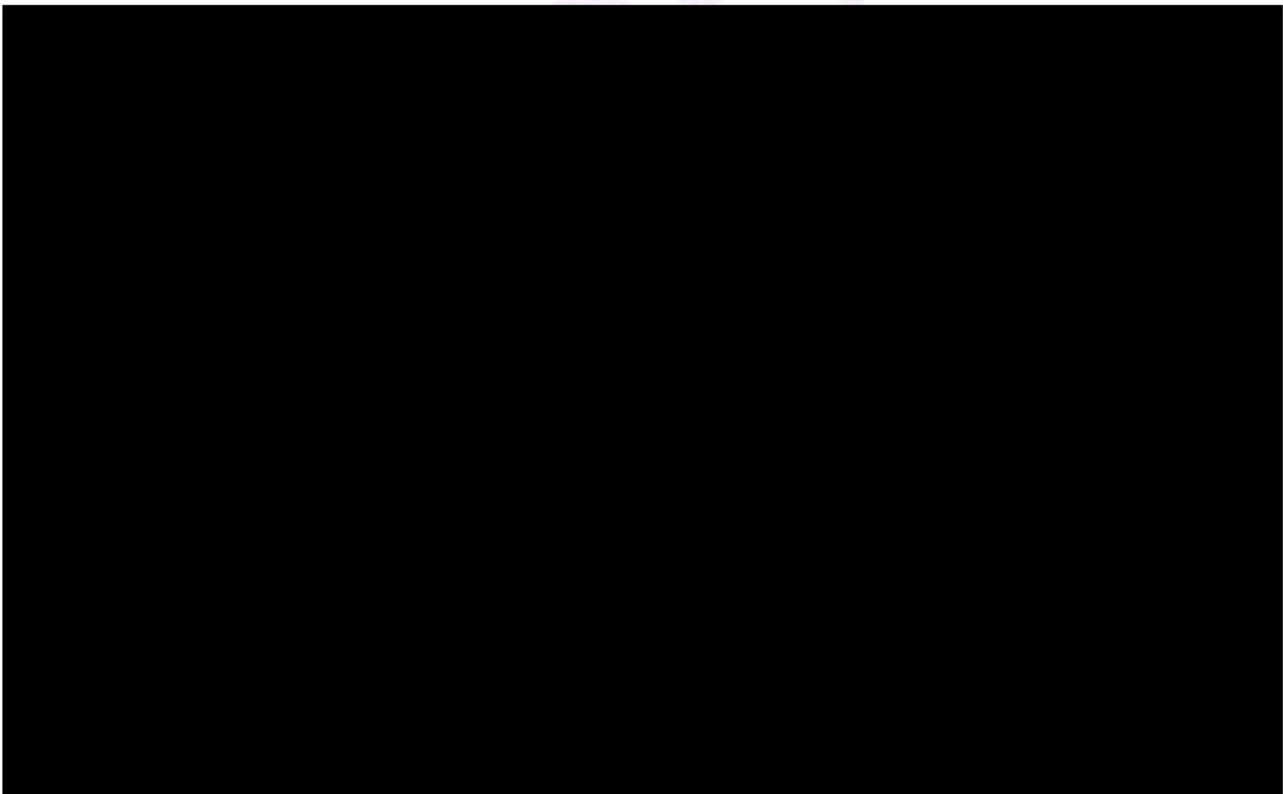


Figure 3: Unit 057 rail loading facility

  
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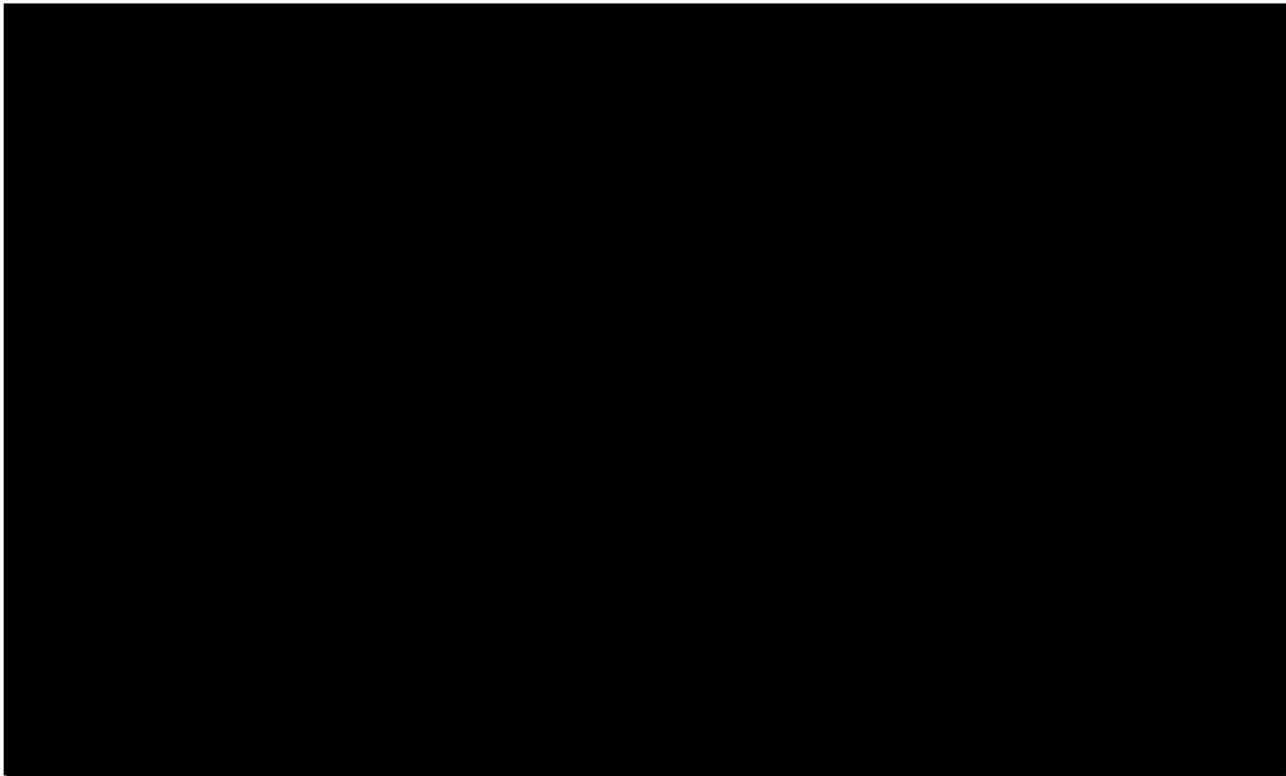


Figure 4: Unit 257 high pressure rail loading facility

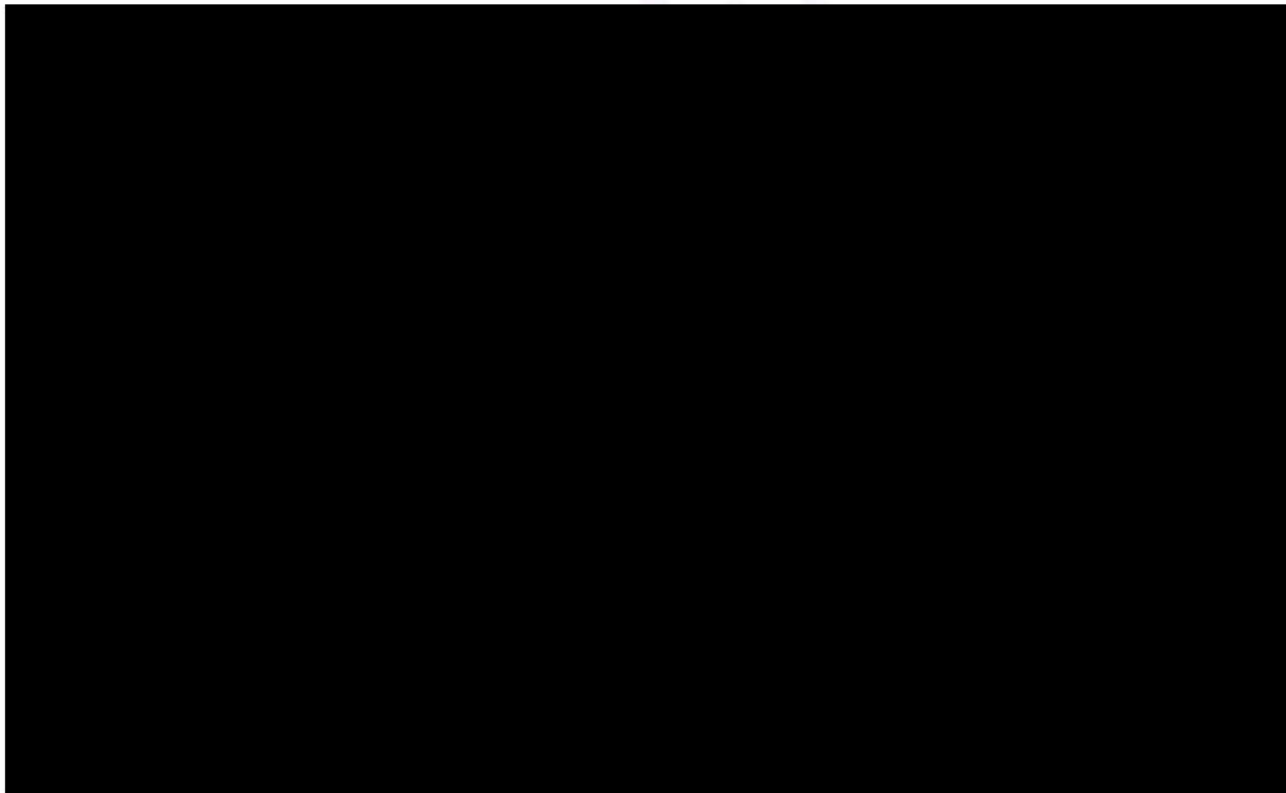


Figure 5: Tar naphtha extraction (TNPE) rail loading and offloading facility

  
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## 6 RAW MATERIAL AND PRODUCTS

### 6.1 Raw materials used

Raw material type	Maximum permitted consumption rate	Units (quantity/period)	Design consumption rate	Units (quantity/period)
None				

### 6.2 Production rates

Product name	Production capacity-permitted	Units (quantity/period)	Design production rate	Units (quantity/period)
<b>Site Logistics</b>				
Road Loading Facility				
Chemicals		Cubic metres per annum		Cubic metres per annum
Fuels		Cubic metres per annum		Cubic metres per annum
<b>Rail Loading Facilities</b>				
Chemicals		Cubic metres per annum		Cubic metres per annum
Fuels		Cubic metres per annum		Cubic metres per annum

### 6.3 By product

Product name	Production capacity-permitted	Units (quantity/period)	Design production rate	Units (quantity/period)
None				

### 6.4 Material used in energy sources

Energy source	Maximum permitted consumption rate	Units (quantity/period)	Design consumption rate	Units (quantity/period)
<b>Site Logistics</b>				
Electricity		Kilowatt hour per day		Kilowatt hour per day

\*Rate is based on flow meters utilised during loading operation

  
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6.5 Sources of atmospheric emission  
6.5.1 Point Source parameters

Unique ID	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 (m³/s)	Actual Gas Exit Velocity (m/s)	Emission hours	Type of emission
SV01	Vapour Recovery Stack			8.25	3	0.31	20	0.65	8.6	24	Intermittent

6.5.2 Area source parameters

Unique ID	Source name	Latitude (decimal degrees)	Longitude (decimal degrees)	Height of Release Above Ground (m)	Length of Area (m)	Width of Area (m)	Emission hours	Type of emission
EU0002	Unit 507 Road Loading facility			N/A	209	48	24	Intermittent
EU0003	Unit 057 Rail Loading facility			N/A	82	19	24	Intermittent

  
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7 APPLIANCES AND MEASURES TO PREVENT AIR POLLUTION

7.1 Appliances and control measures

Associated Source Code	Appliances			Abatement Equipment Control Technology							
	Appliance / Process Equipment Number	Appliance Serial Number	Appliance Type / Description	Abatement Equipment Name and Model	Abatement Equipment Technology and Manufacture Date	Commission Date	Date of Significant Modification / Upgrade	Technology Type	Design Capacity	Minimum Control Efficiency (%)	Minimum Utilisation (%)
Vapour Recovery Stack	SP057_RO VR	SP057_R OVR	To be provided on or before 01 April 2020	To be provided on or before 01 April 2020	To be provided on or before 01 April 2020	To be provided on or before 01 April 2020	To be provided on or before 01 April 2020	To be provided on or before 01 April 2020	To be provided on or before 01 April 2020	To be provided on or before 01 April 2020	To be provided on or before 01 April 2020

7.2 Point Source – maximum emission rates (under normal working conditions)

Point Source Code	Pollutant Name	Maximum Release Rate		Average Period	Duration of Emissions
		(mg/Nm <sup>3</sup> ) under normal conditions of 273 Kelvin and 101,3 kPa	Compliance Timeframe		
Vapour Recovery Stack	Total VOC's from vapour recovery/destruction units using non-thermal treatment	N/A	01 April 2015 to 31 March 2020	Daily	Continuous
		40 000	01 April 2020 to 31 March 2025	Daily	Continuous



7.3 Point source – maximum emission rates (under start-up, maintenance and shut-down conditions)

Point Source Code	Pollutant Name	Maximum Release Rate		Averaging Period	Maximum Gas Volumetric Flow (m <sup>3</sup> /hr)	Maximum Gas Exit Velocity (m/s)	Emission Hours	Maximum Permitted Duration of Emissions
		(mg/Nm <sup>3</sup> )	Date to be Achieved By					
All Point Source Code	All Point Source Pollutant	N/A	N/A	N/A	N/A	N/A	N/A	Within 48 hours after commissioning of plant or equipment

Should normal start-up, maintenance, upset and shut-down conditions exceed a period of 48 hours, Section 30 of the National Environmental Management, 1998 (Act No. 107 of 1998), shall apply unless otherwise specified by the Licensing Authority.

7.4 Point source – emission monitoring and reporting requirements

*Point source code	Emission Sampling /Monitoring Method	Sampling Frequency	Sampling Duration	Parameters to be Measured	Parameters to be Reported	Reporting Frequency	Conditions under which Monitoring could be Stopped
Vapour Recovery Stack	Facility to comply with Annexure A of NEMAQA	In line with No. 37054 Government Gazette November 2013	In line with No. 37054 Government Gazette November 2013	In line with No. 37054 Government Gazette November 2013	In line with No. 37054 Government Gazette November 2013	In line with No. 37054 Government Gazette November 2013.	Only on written authorisation by the Licensing Authority



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7.5 Area source – management and mitigation measures

*Area and/or Line Source Code	Area and/or Line Source Description	Description of Specific Measures	Timeframe for Achieving Required Efficiency	Method of Monitoring Measures Effectiveness	Contingency Measures
Loading Areas	All Loading Areas	A detail plan to manage fugitive emissions to be incorporated into the site fugitive emissions monitoring plan.	Immediately	Quarterly reports to Licensing Authority on the implementation of the site fugitive monitoring plan.	In line with Sasol approved site fugitive emissions monitoring plan

\*Reporting of the area source parameter must be in terms of the site fugitive monitoring plan from 01 April 2015 to 31 March 2020.



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## 7.6. Routine reporting and record-keeping

### 7.6.1 Complaints register

The licence holder must maintain a complaints register at its premises, and such register must be made available for inspections. The complaints 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 quarterly, report to the licensing 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) Calculation of impacts / emissions associated with incidents and dispersion modelling of pollutants, where applicable;
- d) Measures implemented or to be implemented to prevent recurrence; and
- e) Date by which measure will be implemented.

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

### 7.6.2 Emergency Incidents

The licence holder must keep record of all plant failure or emergency incidents including section 30 and submit to the licence authority quarterly a report detailing the following:

- a) Type of plant and summary description of the equipment
- b) Reasons for failure or cause
- c) Previous occurrence on the same plant and number of times similar incident occurred
- d) Mitigation instituted to prevent similar occurrence
- e) Any breach of internal standard operating procedure
- f) Number of times similar incident occurred

### 7.6.3 Annual reporting

The licence holder must complete and submit to the licensing authority an annual report after the facility annual financial year, the report must include information for the year under review (i.e. annual year end of the company). The report must be submitted to the licensing authority not later than sixty (60) days after the end of each reporting period. The annual report must include, amongst others the following:

- (a) NEM: AQA Section 21 pollutant emissions trend for listed activity;
- (b) External compliance audit report (s);
- (c) Major upgrades projects (i.e. abatement equipment or process equipment);
- (d) Greenhouse gas emissions annual report in line with the National Greenhouse Gas Emission Reporting Regulations No. 40762 Government Gazette 03 April 2017;
- (e) Action taken to address complains received;
- (f) Compliance status to statutory obligation (4.5) including any other issued authorisations.

The holder of the licence must keep a copy of the annual report for a period of at least 5 (five) years.

  
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#### 7.6.4. Investigation

Investigation	Purpose	Completion Date
Baseline information of organic chemical and petroleum (waxy oil, diesel, polyfuels/catlign, low neutral oil-depitched tar acid and raffinate) streams to be established.	To determine if they trigger MES and also requires abatement technology for total Volatile Organic Compounds	30 October 2019
The effectiveness of the upgrades concluded on the control system as well as the vacuum pump installation of the vapour recovery unit.	To determine the efficiency of the system post all upgrades	01 April 2020

#### 8 DISPOSAL OF WASTE AND EFFLUENT ARISING FROM ABATEMENT EQUIPMENT CONTROL TECHNOLOGY

Source Code / Name	Waste / Effluent Type	Hazardous Present	Components	Method of Disposal
N/A				

#### 9. PENALTIES FOR NON-COMPLIANCE WITH LICENCE AND STATUTORY CONDITIONS AND OR REQUIREMENTS

Failure to comply with the any of the above condition and requirements in terms of Chapter 7 Section 51 including Chapter 8 Section 53 - 55 of NEMAQA (Act no. 39 of 2004) is a breach of the Licence conditions, and the Licence holder will be subject to the sanctions set out in Chapter 7 Section 52 of NEMAQA (Act no. 39 of 2004), Chapter 10, Section 89 of the National Health Act 61 of 2003, Chapter 7 Section 28, 32, 33 and 34 of the National Environmental Management Act 108 of 1998, Chapter 16, section 151 of the National Water Act, and Chapter 7 section 68 of the National Waste Management Act, including any penalties contained in the By-laws.

#### 10. APPEAL OF LICENCE

10.1 The Licence Holder must notify every registered interested and affected party, in writing and within ten (10) days, of receiving the District's decision.

10.2 The notification referred to in 10.1. must –

10.2.1 Inform the registered interested and affected parties of the appeal procedure provided for in Chapter 7 Part 3 Section 62 of Municipal Systems Act (Act 32 of 2000), as amended;

10.2.2 Advise the interested and affected parties that a copy of the Atmospheric Emission Licence and reasons for the decision will be furnished on request;

10.2.3 An appeal against the decision must be lodged in terms of Chapter 7 Part 3 Section 62 of Municipal Systems Act (Act 32 of 2000), from the date of issue of this Atmospheric Emission Licence, with:

Municipal Manager,

PO Box 1748,

Ermelo

2350

Fax No. 017-811 1207;



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and

10.3. Specify the date on which the Atmospheric Emission Licence was issued.

#### 11. REVIEW OF ATMOSPHERIC EMISSION LICENCE

In terms of -chapter 5 (44) (45) (46) (47) NEMAQA (Act No. 39 of 2004), Atmospheric Emission Licence is valid for 5 years from date of first issue of the Atmospheric Emission Licence. The licence will be reviewed within five (05) years from date of issue, after which it will or will not be amended.

  
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