

### GERT SIBANDE DISTRICT MUNICIPALITY

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (Act No. 39 of 2004)

Atmospheric Emission Licence

Concerning Listed Activities

Sasol Chemical Industries Pty (Ltd) SASOL OIL

Is authorised to continue the process listed below, with the equipment and plant as detailed in licence conditions of Licence No. Govan Mbeki/ Sasol Chemical Industries Pty (Ltd) Sasol Oil/0019/2014/F01 27 March 2014 on the premises known as Industrial Special Stand number 8488, Secunda Extension 35 situated in Govan Mbeki Local Municipality, Gert Sibande District, Mpumalanga. This Atmospheric Emission Licence is issued to Sasol Chemical Industries Pty (Ltd) Sasol Oil, 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 and Category 8: Sub-category 8.1 Thermal Treatment of General and Hazardous Waste

Category of Listed Activity			Description of the Listed Activity	
2	2.4	Storage and Handling of Petroleum Products	Petroleum product storage tanks and product transfer facilities, except those used for liquefied petroleum gas	
8	8.1	Thermal Treatment of General and Hazardous Waste	Facilities where general and hazardous waste are treated by the application of heat	

LICENSING AUTHORITY

### Gert Sibande District Municipality

Please address all correspondence to: The Municipal Manager

P.O.BOX 1748 ERMELO 2350



Office hours: 07:30 – 13:00 / 13:30 – 16:30 (Fridays) 07:30 – 14:00

Tel.: (017) 811 1304 Fax: (017) 811 1207 C/o Joubert & Oosthuise Street ERMELO 2350 E-mail: dan.hlanyane@gsibande.gov.za

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

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 the Applicant.

This Atmospheric Emission Licence is issued to Sasol Oil (Pty) Ltd, 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 and Category 8: Sub-category 8.1 Thermal Treatment of General and Hazardous Waste

The Atmospheric Emission Licence has been issued on the basis of information provided in the company's application dated 29 February 2012 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. The reason issuance of the current licence is for a new application. 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 License ("the holder").

### 1. ATMOSPHERIC EMISSION LICENCE ADMINISTRATION

Name of the Licensing Authority	Gert Sibande District Municipality
Atmospheric Emission Licence Number	Govan Mbeki/ Sasol Oil (Pty) Ltd 0019/2014/F01
Atmospheric Emission Licence Issue Date	Upon date of signature
Atmospheric Emission Licence Type	Atmospheric Emission Licence
Review Date, not later than	Within 5 (five) years from date of signature

LICENSING OFFICER
Govan Mbeki/ Sasol Oil (Pty) Ltd 0019/2014/F01 27 March 2014

### 2. ATMOSPHERIC EMISSION LICENCE HOLDER DETAILS

Enterprise Name	Sasol Oil (Pty) Ltd
Trading as	Sasol Oil
Enterprise Registration Number (Registration Numbers if Joint Venture)	1981/007622/07
Registered Address	Synfuels road
	Sasol Synfuels
	Secunda
	2302
Postal Address	Private Bag X1000
	Secunda 2302
Telephone Number (General)	017 610 2627
Industry Sector	Petrochemical Company
Name of Responsible Officer	Pieter De Wet
Name of Emission Control Officer	Estelle Marais
Telephone Number	+27 17 610 2895
Cell Phone Number	+27 82 902 1989
Fax Number	+27 17 610 4090
Email Address	estelle.marais@sasol.com
After Hours Contact Details	+27 82 902 1989
Land Use Zoning as per Town Planning Scheme	Special
	Stand number 8488
	Secunda Extension 35

### 3. LOCATION AND EXTENT OF PLANT

### 3.1. Address of the facility

Physical Address of the Premises	Synfuels Road
ŕ	Sasol Synfuels
	Secunda
	2302
Description of Site (Erf)	Highveld Ridge, Mpumalanga
Coordinates of Approximate Centre of	Latitude:
Operations	Longitude
Extent (km²)	2405 hectares
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

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

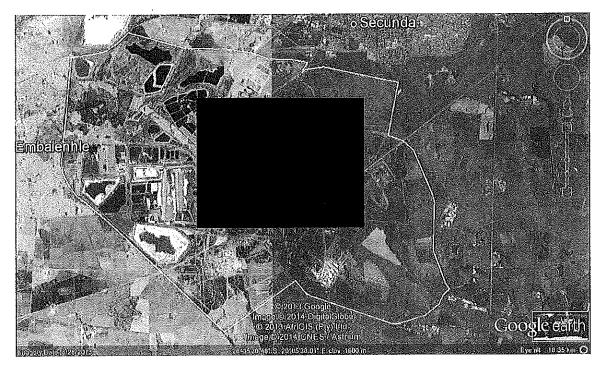


Figure 1: Google Earth Image of area surrounding the site

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Figure 2: Locality map illustrating the area and activities within (5km) radius

### 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 to the minimum of manufactures specifications.
- (b) No building, plant or site of works related to the listed activity or activities used by the license holder shall be extended, altered or added to the listed activity without an environmental authorisation from the competent authority if needed for such extension, alteration or addition. 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 license holder, will require prior approval by the licensing authority. 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.
- (d) The license 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. The licence holder must immediately on cessation or decommissioning of the listed activity inform, in writing the licensing authority.

LICENSING OFFICER
Govan Mbeki/ Sasol Oll (Pty) Ltd 0019/2014/F01 27 March 2014

(e) The license holder must immediately on cessation or decommissioning of a listed activity inform, in writing the licensing authority.

### 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. 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.
- (b) 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 as 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, Section 28 of the National Environmental Management Act 108 of 1998, Chapter 16 section151 of the National Water Act, and Chapter 7 section 68 of the National Waste Management Act, including any provisions contained in the 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 NEMAQA (Annexure A). A different method may be acceptable to the licensing authority as long as it has been consulted and agreed to in writing and to the satisfactory documentation necessary in confirming the equivalent test reliability, quality and equivalence of analyses has been submitted.
- (b) The license holder is responsible for quality assurance of methods and performance. Where the holder of the licence uses external laboratories for sampling or analysis, only accredited laboratories by the national accreditation body shall be used. The certified copy of the license and the accreditation of the external laboratory must be submitted to the license authority annually including its external audits certification.
- (c) The license holder must prior using any methodology obtains written approval from the licence authority for use of such methodology for compilation of compliance sampling reports.
- (d) The license 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 license holder

- (a) The licence does not relieve the license holder to comply with any other statutory requirements that may be applicable to the carrying on of the listed activity.
- (b) 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.
- (c) The license 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 5 working days after such change has been effected.
- (d) The license holder must hold an environmental / health consultation forum meetings with affected and interested parties bi-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 bi-annually.

LICENSING OFFICER
Govan Mbeki/ Sasol Oil (Ply) Ltd 0019/2014/F01 27 March 2014

### 4.5. Statutory obligations

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

### 4.6. Annual payment of atmospheric emission licence processing fee

The license holder must, for the period of validity of the licence, pay or make arrangement for the payment of the prescribed processing fee or district licence tariff to the licensing authority in line with the District tariff by-law or tariff policy in terms of MFMA (Act no. 56 of 2003) and NEMA:QA (chapter 5 (37)

### 5. NATURE OF PROCESS

### 5.1. Process Description

Flare	Description	Products predominantly flared
Main factory flares (x4)	Flares for gas combustion with liquid seals at base and designed for steam assisted smokeless flaring. (Safe outlet for the overpressure protection systems of the upstream Synfuels factory)	Hydrogen, Carbon Monoxide, Methane, Ethane, Propane, Butane, Ethylene, Propylene, C5 to C6 Hydrocarbons.
Ammonia flares (x2)	Flares for gas combustion (breathing losses on ammonia & propylene tanks, and ammonia loading losses)	Ammonia, and propylene
Dragon Flare(x1)	Ground flare for liquid hydrocarbon combustion	Off specification alcohols & carbonyls
Evergreen Flare(x1)	Ground flare for liquid hydrocarbon combustion	Off specification intermediate fuel components

Most flaring except for the dragon flare is used for the destruction of off gases during emergency situations and not for incineration purposes. The dragon flare is operated for Sasol Solvents. The evergreen flare is used to flare for the tank farms.

### Bulk hydrocarbon storage facility

Facilities for storage, transfer and blending of various liquid materials. Transfer includes bulk handling and dispatch of product, by means of pipeline, road and rail tanker and storage of volatile chemicals. The product stored can be classified as intermediate as well as final product for dispatch.

LICENSING OFFICER

Govan Mbeki/ Sasol Oil (Ply) Ltd 0019/2014/F01 27 March 2014

### 5.2. Listed activity or activities

Category of Listed Activity	Sub-category of the Listed Activity	Listed Activity Name	Description of the Listed Activity
2	2.4	Storage and Handling of Petroleum Products	Petroleum product storage tanks and product transfer facilities, except those used for liquefied petroleum gas
8	8.1	Thermal Treatment of General and Hazardous Waste	Facilities where general and hazardous waste are treated by the application of heat

### 5.3. Unit process or processes

Unit Process	Function of Unit Process	Batch or Continuous Process
Main flares		
4 (four) main factory flares	A system consisting of 4 flares (2 West and 2 East) to collect and completely incinerate off-gases, emergency venting	Batch
2 (two) ammonia flares	Emergency venting from high pressure tank farm	Batch
1 (one) ground level flare system West	A system utilized for the burning of mixed alcohols in a pit flare burner at low level	Batch
1 (one) evergreen flare	A system is used to flare for the tank farms.	Batch
Storage facility		
056	Storage of components, final products and blending	Continuous
256	Storage of components and final products	Continuous
257 / 057	Liquefied gases	Continuous
057	Loading of products and gasses	Continuous

### 5.4. Hours of operations

Unit Process / Plant	Operating Hours (e.g. 07h00 – 17h00)	No. Days Operation per Year	
All flares (x 8)	24 hours	365 days	
4 (four) main factory flares	24 hours	365 days	
2 (two) ammonia flares	24 hours	365 days	
1 (one) ground level flare system West	24 hours	365 days	
1 (one) evergreen flare	24 hours	365 days	

Storage of hydrocarbons		
056 Tank farm West	24 hours	365 days
256 Tank farm East	24 hours	365 days
257 / 057 High Pressure tankfarm	24 hours	365 days
057	24 hours	365 days

### 5.5. Graphical Process Information (to be provided seven days after date of issue)

### 6. RAW MATERIALS AND PRODUCTS

### 6.1. Raw materials used

Raw Material Type	Maximum Permitted Consumption Rate (Volume)	Units (quantity/period)
Main flares		
4 (four) main factory flares		
Hydrogen, Carbon Monoxide, Methane, Ethane, Propane, Butane, Ethylene, Propylene, C5 to C6 Hydrocarbons.	In line with maximum and safety requirements per flare	₩
Ground level flares		
Off specification alcohols & carbonyls	In line with maximum and safety requirements per flare	m³/h
Ammonia flares		
Ammonia	In line with maximum and safety requirements per flare	t/h
Propylene	In line with maximum and safety requirements per flare	t/h
Evergreen flare		
Off specification intermediate fuel components	In line with maximum and safety requirements per flare	m³/h
Storage of hydrocarbons		

Various intermediate liquid material	Varying as and when required for safety purposes	m³/h
056 Tank farm West		
Various intermediate liquid material	In line with maximum and safety requirements per storage	m³/h
256 / 257 Tank farm East and High Pressure		
Various intermediate liquid material	In line with maximum and safety requirements per storage	m³/h
257 / 057		
Various intermediate liquid material	In line with maximum and safety requirements per storage	m³/h
Various intermediate liquid material	In line with maximum and safety requirements per storage	m³/h
056 Tank farm West		
Various intermediate liquid material	In line with maximum and safety requirements per storage	m³/h

### 6.2. Production rates

Energy Source	Actual Consumption Rate (Volume)	Units (quantity/peri od)	Sulphur Content of Fuel (%) (if applicable)	Ash Content of Fuel (%) (if applicable)	
No Production					

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.

### 6.3. Materials used in energy sources

Energy Source	Actual Consumption Rate (Quantity)	Units (quantity/period)	Material Characteristics
Main flares			
Fuel gas	Indicate minimum fuel usage	m³/h	
Propane	Indicate minimum usage	m³/h	

6.4. Sources of atmospheric emission

### 6.4.1. Point source parameters

[256 / 257 Tank farm East and High Pressure & 056 Tank farm west]

Point Source code	Source name	Latitude (decimal degrees)	Longitude (decimal degrees)	Height of Release Above Ground (m)	Vapour pressure (kPa)
	56 TK-1402			10.74	90
2	256 TK-9301		·	20.45	33
ಣ	56TK-0107			14.25	45
4	56TK-0216		T Processor	7.25	16
ಎ	256TK-3812			7.25	>14
9	256 TK 3301			14,85	29
	56TK-3812			7.25	16
8	56TK-3301			14.85	32
6	56TK-3721			7.25	>14
10	256TK-3721			7.25	36
<b>-</b>	256TK-0148			11.87	23
12	256TK-3601			11.87	20
13	256TK-3602			9.60	>14
14	256TK-3706			7.25	>14
15	256TK-3811			7.25	>14
16	256TK-3851			6.40	48
17	256TK-3705			7.22	>14
				the management	- The state of the

LICENSING OFFICER Govan Mbekil Sasol Oil (Pty) Ltd 0019/2014/F01 27 March 2014

260TK-3881         540         >14           260TK-3602         260         >14           56TK-7301         7.50         >14           66TK-7302         7.50         >14           66TK-7302         7.50         >14           66TK-7302         7.50         >14           66TK-7302         11.87         19           66TK-3803         40         >14           66TK-3804         9.60         46           66TK-3805         9.60         46           66TK-3804         10.5         >14           66TK-3804         10.5         >14           66TK-3804         10.5         >14           66TK-3804         10.5         >14           66TK-307         10.5         >14           66TK-308         10.5         >14           66TK-301         11.87         >14           66TK-301         11.87         >14           66TK-301         11.87         <14           66TK-0130         11.87         <14           66TK-0148         11.87         <14	Point Source code	Source name	Latitude (decimal congitude (decimal degrees)	Height of Release Above Ground (m)	Vapour pressure (kPa)
2 9.60 7.25 7.50 11.89 11.87 0 6.40 6.40 9.60 14.63 7.25 7.2		256TK-3851		6,40	>14
7.50 7.50 7.50 7.50 7.50 7.50 7.50 7.50		256TK-3602	The state of the s	9.60	>14
7.25 0 11.87 0 11.87 0 6.40 9.60 9.60 12.80 7.25 7.25 7.25 11.97 11.97 11.97		56TK-7301	William Inc.	7.50	>14
7.50 11.87 11.87 0 6.40 9.60 12.80 7.25 7.25 7.25 11.97 10 10		56TK-3706	- Control - Cont	7.25	>14
11.89 11.87 6.40 9.60 12.80 12.80 7.25 7.25 7.25 11.97 11.97		56TK-7302	The state of the s	7.50	>14
0 6.40 9.60 14.63 12.80 7.25 7.25 7.25 11.97 10 11.97		56TK-3601	WATER TO THE TOTAL THE TOTAL TO THE TOTAL TOTAL TO THE TO	11.89	40
0 6.40 6.40 9.60 9.60 9.60 14.63 12.80 12.80 12.80 14.63 14.		56TK-3603	777	11.87	19
9.60 14.63 12.80 7.25 7.25 3 11.97 11.97 11.97		256TK-3850		6.40	>14
14.63       12.80       7.25       3       1		56TK-3602	Tri .	9.60	46
12.80 7.25 7.25 7.25 1 11.97 1 10 11.97		56TK-3201	The state of the s	14.63	105
7.25 3 7.25 3 11.97 1 11.97 1 11.97 1 11.97	T T T T T T T T T T T T T T T T T T T	56TK-7303		12.80	>14
3     7.25       3     11.97       1     14.63       1     10       1     11.97       1     11.97		56TK-3811	Topic and the second se	7.25	20
3 7.25 2 11.97 1 14.63 1 11.97		56TK-3705	WATER TO THE PROPERTY OF THE P	7.25	>14
3     7.25       2     14.63       1     10       1     11.97       1     10       1     11.97       11.97     11.97		56TK-3812		7.25	>14
3 2 1 14.63 1 14.63 1 10 1 10 1 1.97		56TK-3811		7.25	>14
14.63 1 14.63 1 10 1 11.97		256TK-0143	77/47 7	11.97	>14
14.63		256TK-3202	To all a secondarios	14.63	79
11.97		256TK-3201		14,63	80
11.97		56TK-0130		10	<14
11.97		56TK-0143		11,97	<14
		56TK-0146	THE PARTY OF THE P	11.97	<14

LICENSING OFFICER Govan Mbekil Sasol Oil (Pty) Ltd 0019/2014/F01 27 March 2014

2	56TK-0203		11 97	<b>41</b> >
40	56TK-3709	4.	4.85	<14
41	56TK-3710	4.	4.85	<14
42	56TK-3713	4,	4.85	<14
43	56TK-3714	4,	4.85	<14
44	56TK-3721	7.	7.22	<14
45	56TK-3835		11.97	<14
46	256TK-3713	4	4.85	>14
47	256TK-3714	4.	4.85	>14
48	256TK-3835		11.97	>14
49	256TK-1401	) }	10.7	09
50	256TK-1402	1	10.7	09
51	256TK-2902	71	14.8	55
52	256TK-3401		11.8	414
53	256TK-3402		11,8	414
54	256TK-9301	2(	20.4	33
ည	256TK-9302	2(	20.4	33

LICENSING OFFICER
Govan Mbekil Sasol Oil (Pty) Ltd 0019/2014/F01 27 March 2014

66TK-012     9     <14       66TK-012     9     <14       66TK-012     9     <14       66TK-012     9     <14       66TK-1401     10.70     <14       66TK-1402     10.70     <14       66TK-2901     36     <14       66TK-2902     14.80     21       66TK-3401     11.80     >14       66TK-3401     11.80     >14       66TK-3801     11.80     <14	Point Source code	Source name	Latitude (decimal degrees) degrees)	Height of Release Above Ground (m)	Vapour pressure (kPa)
9 8 8 10.70 14.80 14.80 11.80		56TK-0113		14.35	>14
8 10.70 10.70 14.80 14.80 11.80	RANGE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROP	56TK-0121	The state of the s	6	<14
10.70 10.70 14.80 11.80		56TK-0122		6	<14
10.70 10.70 9.60 14.80 11.80		56TK-0214	The second secon	- ∞	>14
10.70 9.60 14.80 14.80 11.80		56TK-1401		10.70	<14
9.60 14.80 14.60 11.80		56TK-1402	TOTAL	10.70	<14
14.80		56TK-1601		9.60	35
14.80		56TK-2901		14.80	21
11.80		56TK-2902		14.80	21
11.80		56TK-3202		14.60	80.2
11.80		56TK-3401		11.80	>14
12.80		56TK-3402		11.80	<14
	7.00	56TK-3901		12.80	>14

LICENSING OFFICER Govan Mbekii Sasol Oil (Pty) Ltd 0019/2014/F01 27 March 2014

Point Source code	903,343	Latitude (decimal Longitude (decimal degrees)	Height of Release Above Ground (m)	Vapour pressure (kPa)
69	56TK-3902		12.80	<14
70	56TK-2903	THE STATE OF THE S	26	<14
71	56TK-3501	The second secon	14.35	<14
72	256TK-3301		14,35	32
73	256TK-3001	7 70000000000	14.75	<;4
74	256TK-2811		11,12	>14
75	256TK-2812	made property and the second s	11.12	>14
76	56TK-3305		9.50	<14
77	256TK-3320		12.19	>14
78	56TK-3321		12.17	414
79	56TK-3322		12.17	<14
80	56TK-3308		9.50	<14
81	56TK-3309	The state of the s	9.50	<14
82	56TK-1508	Table 1	6	<14
83	256TK-1508		6	>14
84	56TK-1505		8.38	>14
85	256TK-1505		8	<14
98	56TK-1414	The second secon		<14
28	56TK-1501	The same same	11.20	<14
88	56TK-1502		11.20	>14
Tagad Oktonast I	1	WERRING THE STATE OF THE STATE	***************************************	Transment to the state of the s

LICENSING OFFICER Goven Moekil Sasol Oil (Pb) Ltd 0019/2014/F01 27 March 2014

Point Source code	Source name	Latitude (decimal Longitude (decimal degrees)	Height of Release Above Ground (m)	Vapour pressure (kPa)
89	256TK-1501		11.88	>14
06	256TK-1502	Type III	11.88	<14
91	56TK-3005	or company and com	14.25	<14
92	56TK-3006	77,444	14.25	<14
93	256TK-3005	To a series of the series of t	15.66	<14
94	256TK-3006	TOTAL CONTROL OF THE	15.66	<14
95	56TK-3521	TOTAL TRANSPORT	9.56	>14
96	256TK-2801	Topolo-	11.87	<14
97	256TK-2901	TOTAL	14.85	<14
98	256TK-2904	7.7000	14.75	<14
66	56TK-3304	Trackit Tracki	20.10	<14
100	256TK-3852	TANKE TO THE TANKE	20.10	<14
101	256TK-3001		14.75	
102	256TK-3002		9.60	<14
103	56TK- 0101	7-2004	11.87	<14
104	56TK- 0102		11.87	<14
105	56TK- 0103		11.87	<14
106	56TK- 0105	1014000	21.44	<14
107	56TK- 0106	1975	14.25	<14
The state of the s	The second secon	TOTAL		7778.00.0000.0000.0000.0000.0000.0000.0

LICENSING OFFICER Goven Mbeki Sasol Oil (Pty) Ltd 0019/2014/F01 27 March 2014

Source name Latitude (decimal Longitude (decimal Height of Release Vapour pressure (kPa) degrees) Above Ground (m)		<- 0108 <- 14.72 <- 14	3010	0109	0110	- 0216	0112	C-B901	-B906 <14	oint 7 and 10 (to <0216)
Source name	256TK- 0104	256TK- 0108	56TK-3010	56TK- 0109	56TK- 0110	256TK-0216	56TK-0112	258TK-B901	258TK-B906	Rail point 7 and 10 (to 2/56TK0216)
Point Source code	108	109	110	111	112	113	114	115	116	117

LICENSING OFFICER Govan Mbekil Sasol Oli (Pty) Ltd 0019/2014/F01 27 March 2014

# APPLIANCES AND MEASURES TO PREVENT AIR POLLUTION

ζ.

7.1. Appliances and control measures

Absolvate Appliance / Appliance Type Equipment Code Equipment Number Num		Appliances			Abatement Equ	Abatement Equipment Control Technology	Technology		MANUALINA		Try (Value or	
256/257 Tank farm         Not known         HP Tank Farm         NJMV-         Not known	Associate d Source Code	Appliance / Process Equipment Number	Appliance Serial Number	Appliance Type / Description	Abatement Equipment Technology Name and Model	Abatement Equipment Technology Manufacture Date	Commission Date	Date of Significant Modificatio n / Upgrade	Technology Type	Design Capacity	Minimum Control Efficiency (%)	Minimum Utilisation (%)
256 / 267 Tank farm East and Harmania from issue         Not known to be provided within six month from issue         HP Tank Farm Inch from issue         NullWV- Flare to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known to be provided within six month from issue         Not known month from issue         Not be provided provided provided provided provided within six month from issue         Not be provided	<u> </u>	056 Tank farm West	Not known	HP Tank Farm Flare	NJMV- SR/GR	Not known	Not known	No upgrades	NOA	8385 kg/h	N/a	95 %
257ME-0100 Not known Flare SPGRR Not known for issue to be provided within six month from issue to be provided within six month from sisue to be provided within six month from sue to be provided within six month from such from sue to be provided within six month from level flare within six month from sue to be provided within six month from level flare within six month from	1.2	256 / 257 Tank farm East and High Pressure	Not known	HP Tank Farm Flare	NJMV- SR/GR	Not known	Not known	No upgrades	NOA	8385 kg/h	N/a	95%
Figure 1000 Not known Flare SR/GR (four) main from issue to be provided within six month from issue to be provided within six month and issue to be provided within six month from issue issue to be provided provided within six month from issue to be provided provided within six month from issue issue to be provided provided provided within six month from issue month from	1.3	257ME-0100	Not known	HP Tank Farm Flare	NJMV- SR/GR	Not known	Not known	No upgrades	NOA	8385 kg/h	N/a	95%
Not known known from ammonia flares  Not known known from ammonia flares  Not known known from level flare  Not known known known known from ammonia flare system West from from month from month from system West from from month from	1.4	57ME-0100	Not known	HP Tank Farm Flare	NJMV- SR/GR	Not known	Not known	No upgrades	NOA	8385 kg/h	N/a	95%
Not known ammonia flares month from issue to be provided within six month from issue to be provided within six month from issue to be provided not known level flare system West month from issue to be month from month from issue to be provided within six month from issue to be provided within six month from		to be provided within six month from issue	Not known	4 (four) main factory flares		to be provided within six month from issue	to be provided within six month from issue	to be provided within six month from issue	to be provided within six month from issue	to be provided within six month from issue	to be provided within six month from issue	95%
1 (one) ground to be to be provided to be provided provid		to be provided within six month from issue	Not known	2 (two) ammonia flares		to be provided within six month from issue	to be provided within six month from issue	to be provided within six month from issue	to be provided within six month from issue	to be provided within six month from issue	to be provided within six month from issue	95%
THE PARTY OF THE P		to be provided within six month from issue	Not known	1 (one) ground level flare system West	to be provided within six month from	to be provided within six month from issue	to be provided within six month from	to be provided within six month from	to be provided within six month from	to be provided within six month	to be provided within six month from	95%

LICENSING OFFICER Govan Mbekii Sasol Oil (Pty) Ltd 0019/2014/F01 27 March 2014

	95%
Gradi	to be provided within six month from issue
from issue	to be provided within six month from issue
issue	to be provided within six month from issue
issue	to be provided within six month from issue
enssi	to be provided within six month from issue
	to be provided within six month from issue
Issue	to be provided within six month from issue
	1 (one) evergreen flare
	Not known
	to be provided within six month from issue

## Point source - operating requirements

- 7.1.1 The license holder must ensure that all abatement equipment is operated 95% of daily / 24 hours of normal operation.
- 7.1.2. The license holder must ensure that all operating equipment is operated within their designed operational capacity and safety levels at all times;
- 7.1.3. The license holder must ensure that all operators have undergone compulsory training to operate the equipment and have attended induction training on the plant environmental management and air quality plans, which must be incorporated into plant SHE training
- 7.1.4. The license holder will be required to comply with greenhouse emission standards and reporting requirements.
- 7.1.5. Existing plants shall submit atmospheric impact reports to the licensing authority on its emissions impact annually.
- 7.1.6 The operations and use of all the flares must prevent incomplete burning of gasses (black smoke emissions)

# Point Source - maximum emission rates (under normal working conditions)

7.2.

Point Source Code	oint Source Code Pollutant Name	Maximur (mg/Nm³)	iximum Release Rate Date to be Achieved By	Average Period	Duration of Emissions
All sources	VOCs (non-thermal)	40 000	1 April 2015	24 hours	Continuous

Leak detection and repair (LDAR) program and fugitive management plan (FMP) approved by the licensing authority to be instituted immediately.

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

Point Source Pollutant	Pollutant	Maximum Relea	Release Rate	Averaging	Maximum Gas	Maximum Gas	Emission	Maximum Permitted	_
Code	Name			Period	Volumetric Flow	Exit Velocity	Hours	Duration of	
		(mg/Nm³)			(m³/hr)	(s/m)		Emissions	
			Achieved						
	-		By		**************************************				
Not									
Applicable									
Chould norman	m dir hich	nintenance	reset and chirt-	down conditions avea	Should manufacture maintenance uncert and chilt-down conditions exceed a netiod of 48 hours. Section 30 of the National Environmental Management 1998	Section 30 of the Nation	anal Environme	9991 Manapanant 1998	

Should normal start-up, maintenance, upset and shut-down conditions exceed a period of 48 nours, section 50 of the National Environmental Management, 1998 (Act No. 107 of 1998), shall apply unless otherwise specified by the Licensing Authority.

LICENSING OFFICER
Govan Mbekil Sasol Oli (Pty) Lid 0019/2014/F01 27 March 2014

Point source - emission monitoring and reporting requirements

7.4

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
4 (four) main factory flares	As per the approved management plan from 1 April 2016	Annual	In line with NEMA:QA Gazette No. 37054 (Annexure A)	NOCs	VOCs	Annual	Instruction from the Licensing Authority
2 (two) ammonia fiares	As per the approved management plan from 1 April 2016	Annual	In line with NEMA:QA Gazette No. 37054 (Annexure A	VOCs	VOCs	Annual	Instruction from the Licensing Authority
1 (one) ground level flare system West	As per the approved management plan from 1 April 2016	Annuai	In line with NEMA:QA Gazette No. 37054 (Annexure A	VOCs	VOCs	Annual	Instruction from the Licensing Authority
1 (one) evergreen flare	As per the approved management plan from 1 April 2016	Annual	In line with NEMA:QA Gazette No. 37054 (Annexure A	VOCs	VOCs	Annual	Instruction from the Licensing Authority



### 7.5. Routine reporting and record-keeping

### 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 complain was registered. The register should also provide space for noise, dust and offensive odours complaints.

Furthermore, the licence holder is to investigate and, monthly, 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 modeling 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.

### Annual reporting

The licence holder must complete and submit to the licensing authority an annual report. 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 60 (sixty) days after the end of each reporting period. The annual report must include, amongst others, the following items:

- (a) Pollutant emissions trend;
- (b) Compliance audit report(s);
- (c) Major upgrades projects (i.e. abatement equipment or process equipment); and
- (d) Greenhouse gas emissions.
- (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.

### 7.6. Investigation

Purpose	Completion Date
To identify, distinguish which leaks are emitting pollutants to the Atmosphere.	12 months from date of issue
To identify fugitive emissions sources and develop fugitive emission management plan	12 months from date of issue
To develop a flaring management plan to be approved by authority to ensure proper and efficient disposal of gases through complete burning process. The plan must include but not limited to:	12 months from date of issue
<ul><li>a) flow rate;</li><li>b) indicate the products being disposed;</li><li>c) the efficiency of the destruction</li></ul>	
To investigate the destruction efficiency of gases managed through the flares as abatement technology.	12 months from date of issue
	To identify, distinguish which leaks are emitting pollutants to the Atmosphere.  To identify fugitive emissions sources and develop fugitive emission management plan  To develop a flaring management plan to be approved by authority to ensure proper and efficient disposal of gases through complete burning process. The plan must include but not limited to:  a) flow rate; b) indicate the products being disposed; c) the efficiency of the destruction  To investigate the destruction efficiency of gases managed through the flares as abatement

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

Source Code / Name	Waste /	Hazardous Components	Method of Disposal
	Effluent Type	Present	
Not Applicable			

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.

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

Failure to comply with any of the above conditions and requirements in terms of Chapter 7 Section 51 including Chapter 8Section 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.

### APPEAL OF LICENCE

- The Licence Holder must notify every registered interested and affected party, in writing and within ten (10) days, of receiving the Department'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 section 43 of the National Environmental Management Act (NEMA), 107 of 1998, as amended:
    - 10.2.2 Advise the interested and affected parties that a copy of the Atmospheric Emission License and reasons for the decision will be furnished on request;
    - 10.2.3 An appeal against the decision must be lodged in terms of section 43 of the NEMA, Act 107 of 1998, as amended, from the date of this license, with:

Municipal Manager, PO Box 1748, Ermelo, Tel No. 017-8117000, Fax No. 017-811 1207;

and

10.3. Specify the date on which the licence was issued.

### 11. REVIEW OF ATMOSPHERIC EMISSION LICENCE

in terms of chapter 5 (41)(1)&(2) NEMAQA (Act no. 39 of 2004), Licence is issued which will be reviewed within five years from date of issue, after which it will or will not be amended and a Atmospheric Emission licence be issued valid for 5 years form date of issue.

