Gert Sibande District Municipality

Please address all correspondence to:

The Municipal Manager

P O Box1748
ERMELO
2350

Office hours: 07:30 – 13:00 / 13:30 – 16:00

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Tel.: (017) 801 7000
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C/O Joubert & Oosthuisen Street

DIRECTORATE: MUNICIPAL HEALTH AND ENVIRONMENTAL SERVICES

Enquiries: Mr TD Hlanyane Our Ref: 11/19/1*Govan Mbeki/ Sasol South Africa (Ply) Ltd* Govan Mbeki Sasol *Nitro/ 0020/2015/F02* **Date:** 31 March 2015

Sasol South Africa (Pty) Ltd

Private Bag x 1000

Secunda

2302

Attention: Mr. Marinus Sieberhagen

Dear Sir

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

The reference to your application dated 21 July 2011, enclosed, herewith, Atmospheric Emission Licence No ***Govan Mbeki/ Sasol South Africa (Ply) Ltd*** **Govan Mbeki Sasol** ***Nitro/ 0020/2015/F02*** dated 31 March 2015 in respect of Sasol Nitro .

Your attention is drawn to the following conditions for Licence issue –

a. Chapter 5, Section 42 of the Act, Issuing of atmospheric emission licence.

and

b. Chapter 5, Section 43 of the Act, content of provisional atmospheric emission licence and atmospheric emission licence.

This Atmospheric Emission Licence is issued to *Sasol* Nitro (*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 7: Sub-category 7.1 Production and or Use in Manufacturing of Ammonia, Fluorine, Fluorine Compounds, Chlorine and Hydrogen Cyanide, Sub-category 7.2 Production of Acids, Sub-category 7.3 Production of Chemicals Fertilizer and Category 8: Sub-category 8.3 Burning Grounds

SITUATION AND EXTENT OF PLANT

Situation

Industrial Special Stand number 8488 Secunda extension 35 Govan Mbeki Local Municipality, Gert Sibande District, Mpumalanga.

Extent 0.55 km²

1. NATURE OF PROCESS AND LISTED ACTIVITIES IN TERMS OF SECTION 21

Category of Listed Activity	Sub-category of the Listed Activity	Listed Activity Name	Listed Activity Description
7	7.1	Production and or Use in Manufacturing of Ammonia, Fluorine, Fluorine Compounds, Chlorine, and Hydrogen Cyanide	Production and or Use in Manufacturing of Ammonia, Fluorine, Fluorine Compounds, Chlorine, and Hydrogen Cyanide and chlorine gas (excluding metallurgical processes-related activities regulated under category 4)
7	7.2	Production of Acids	The production, bulk handling and 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 manufacture and acid sulphides of alkalis or alkaline earths through the production of liquid sulphur or sulphurous cid Secondary production of hydrochloric acid through regeneration
7	7.3	Production of Chemicals Fertilizer	The production of superphosphates, ammonium nitrate, ammonium phosphates and or ammonium sulphate and their processing into fertiliser mixture (NPK) mixtures
8	8.3	Burning Grounds	Facilities where waste material from the manufacture of explosives and contaminated explosive packaging material are destroyed.

Yours Faithfully

Mr. CA HABILE

MUNICIPAL MANAGER

Gert Sibande District Municipality

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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 South Africa (Pty) Ltd Secunda Chemical operations (Nitro) ,** 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 7: Sub-category 7.1 Production and or Use in Manufacturing of Ammonia, Fluorine, Fluorine Compounds, Chlorine and Hydrogen Cyanide, Sub-category 7.2 Production of Acids, Sub-category 7.3 Production of Chemicals Fertilizer and Category 8: Sub-category 8.3 Burning Grounds**

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 Provisional 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 South Africa (Pty) Ltd / Sasol Nitro /0020/2015/F02
Atmospheric Emission Licence Issue Date	Upon date of signature
Atmospheric Emission Licence Type	Review of Atmospheric Emission Licence
Review Date, not later than	Within 5 (five) years from date of signature

2. ATMOSPHERIC EMISSION LICENCE HOLDER DETAILS

Enterprise Name	Sasol South Africa
Trading as	Sasol South Africa
Enterprise Registration Number (Registration Numbers if Joint Venture)	1968/013914/07
Registered Address	1 Sturdeelaan Rosebank 2196
Postal Address	Sasol Nitro Secunda Fertilizer Division Private Bag 1013, Secunda 2302
Telephone Number (General)	017 610 2627
Industry Sector	Chemical Industry: Manufacturing Fertilizers and Explosives
Name of Responsible Officer	Marinus Sieberhagen
Name of Emission Control Officer	Estelle Marais
Telephone Number	017 610 2644
Cell Phone Number	079 509 9011
Fax Number	017 610 4090
Email Address	Estelle.marais@sasol.com
After Hours Contact Details	079 509 9011
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	Sasol Nitro Secunda Fertilizer/Explosives Division Nitrogen Rd Secunda 2302
Description of Site (Erf)	Portion of the farm Goedehoop 290 IS, district of Highveld Ridge, Mpumalanga
Coordinates of Approximate Centre of Operations	Latitude: [redacted] Longitude:
Extent (km²)	0.55 km2
Elevation Above Mean Sea Level (m)	1621.75 m
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)

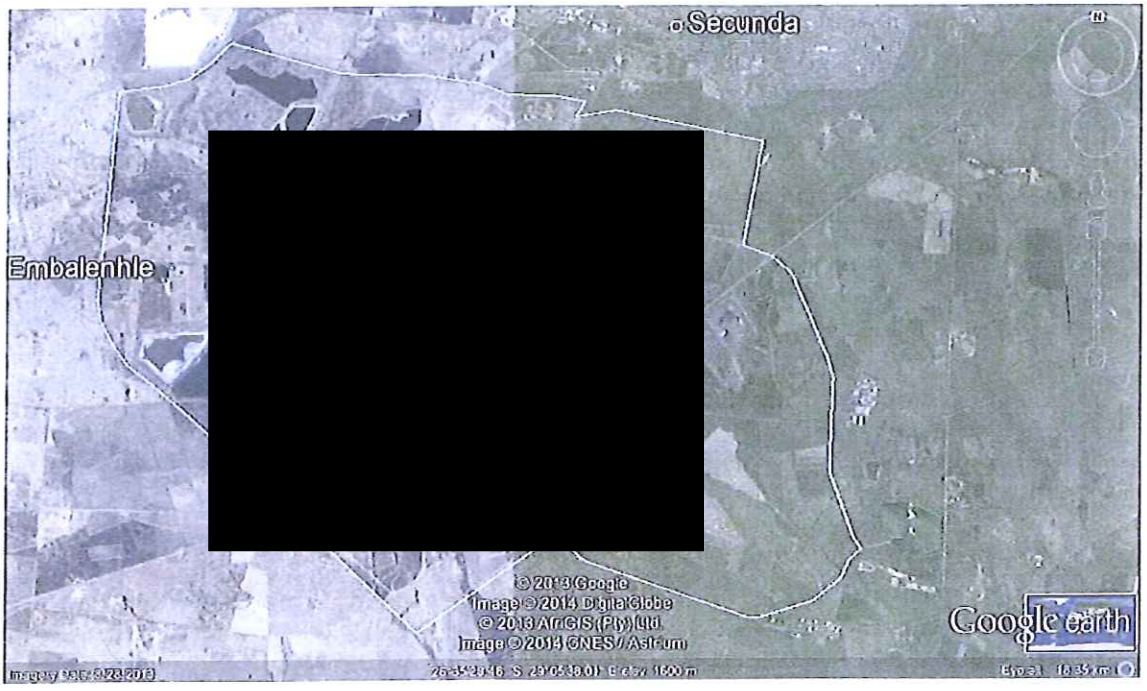


Figure 1: Goole Earth Image of area surrounding the site (5km) of Sasol Polymers

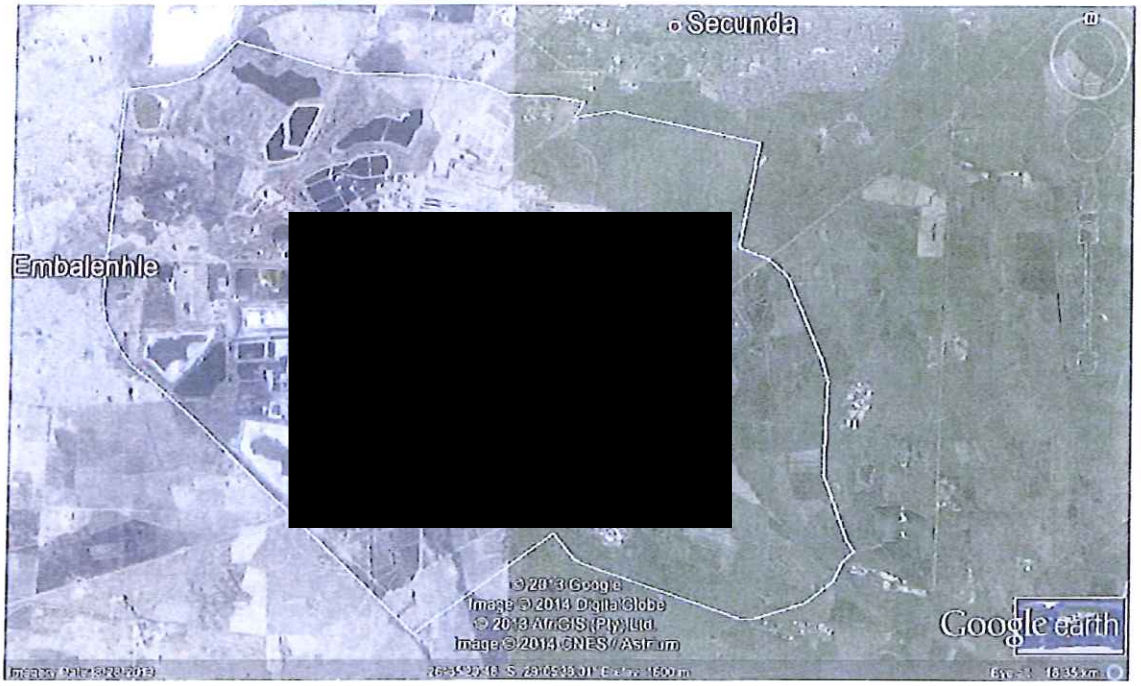


Figure 2: Locality map illustrating the area and activities within (5km) radius

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. 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 30 (thirty) 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.

(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.

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

NITRIC ACID PROCESS

[redacted]

AMMONIA PROCESS

[redacted]

LIMESTONE FERTILISER PROCESS

LAN Production

[redacted]

PHOSPHOROUS PROCESSES & AMMONIA PROCESSES

The production process consists basically by mixing various chemicals according to specific formulas to produce liquid fertilizers.

Two types of liquid fertilizers are produced, based on market demands, namely, Clear NPK Solutions and NPK Suspended Solutions.

Clear NPK Solution Fertilizers

[redacted]

NPK Suspension Solution Fertilizers

[redacted]

AMMONIUM SULPHATE AND AMMONIUM CHLORIDE PROCESSES

[redacted]

Explosives

The Emex plant encompasses three sections, namely preparation of raw materials, mixing and cartridging, and cooling and packaging. This plant only produces cartridge emulsion product. The Bulk plant produces Matrix and DDS emulsion. It also consists of three sections, namely preparation of raw material, mixing, and storage of final product.

Emex Operation

The Emex Plant is divided into three sections, namely preparation (one common line), mixing (two parallel lines) and cartridging section.

Preparation

An oxidizer solution and an emulsifier mixture is prepared and heated up to process temperature in this section.

Oxidizer (OX) Preparation

[redacted]

Emulsifier Preparation

[redacted]

Viscotech 7 and 5 Preparation

[redacted]

PQ Plant

[redacted]

Mixing /Cartridging

[redacted]

Mixing

[redacted]

Cartridging

From the hopper (HO – 03), the Emex explosive is pumped directly to cartridging machines. Each mixing line has two parallel cartridging machines. By changing sets of sizing parts, the machine can produce cartridges of different diameters and lengths.

From each cartridging machine the finished cartridge is s transported lengthwise on a conveyer belt to the outside of the house. From cartridging section to cooling/packing section the cartridges are again transported on a belt conveyer, one conveyor for each mixing line.

Cooling /Packing

From the mixing house, the cartridges are transported in one conveyer belt to the cooling / packing house. Here the conveyer belt passes through the two stage water baths in order to cool the cartridges. Once the cartridges are cooled, they are packed in plastic bags and then transported by a conveyer belt to a box packer. Packed boxes are transported by conveyer belt to be packed in pallets before sent into magazines.

DDS Component 2 preparation

[redacted]

Bulk Plant Operation

Bulk Matrix and DDS emulsions are produced at the Bulk plant. [redacted]

Bulk Matrix and DDS Emulsion Preparation

The oxidizer and fuel blend dosing pumps are kept on circulation. Before mixing is started, the level of the silos are checked and the silo to mix into chosen. The heat exchanger cooling water pump is then switched on. The quality holding hopper to be mixed into is then selected. All valves are checked to be in correct positions. Matrix or DDS Production Log sheet is then filled as required.

5.2. Listed activity or activities

Category of Listed Activity	Sub-category of the Listed Activity	Listed Activity Name	Listed Activity Description
7	7.1	Production and or Use in Manufacturing of Ammonia, Fluorine, Fluorine Compounds, Chlorine, and Hydrogen Cyanide	Production and or Use in Manufacturing of Ammonia, Fluorine, Fluorine Compounds, Chlorine, and Hydrogen Cyanide and chlorine gas (excluding metallurgical processes-related activities regulated under category 4)
7	7.2	Production of Acids	The production, bulk handling and 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 manufacture and acid sulphides of alkalis or alkaline earths through the production of liquid sulphur or sulphurous cid Secondary production of hydrochloric acid through regeneration
7	7.3	Production of Chemicals Fertilizer	The production of superphosphates, ammonium nitrate, ammonium phosphates and or ammonium sulphate and their processing into fertiliser mixture (NPK) mixtures
8	8.3	Burning Grounds	Facilities where waste material from the manufacture of explosives and contaminated explosive packaging material are destroyed.

5.3. Unit process or processes

Unit Process	Function of Unit Process	Batch or Continuous Process
Fertilisers		
Nitric Acid Process	Production of Nitric acid	Continuous
Ammonia Process	Production Of Ammonium Nitrate Solution	Continuous
LAN Fertilizer Process	Production of Granular Fertilizers	Continuous
Phosphorous Process Ammonia Process	Production of Various grades of Liquid Fertilizers	Batch
Ammonium Sulphate and Ammonium Chloride Processes	Production Of Ammonium Sulphate crystals	Continuous
Explosives		
20D	Preparation of raw materials	Semi-Continuous
D-Houses	Mixing and cartridging of explosive emulsion	Semi-Continuous
E-Houses	Cooling and Packaging of cartridged emulsion	Semi-Continuous
F2	Palleting of packed product	Semi-Continuous
Magazines	Storage of product	
Bulk Plant	Production of Bulk Matrix and DDS emulsion	Semi-Continuous

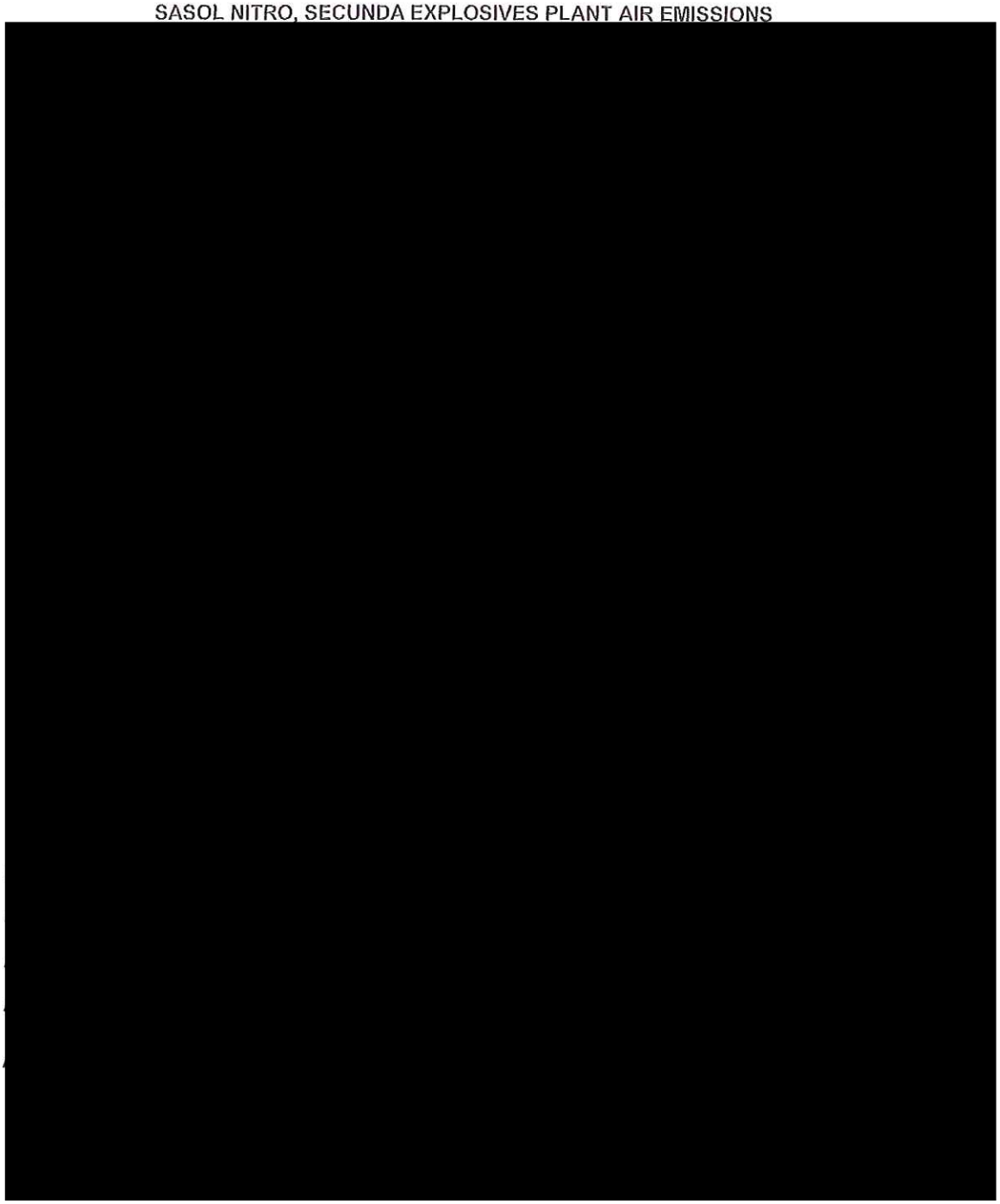
5.4. Hours of operations

Unit Process / Plant	Operating Hours (e.g. 07h00 – 17h00)	No. Days Operation per Year
Fertilisers		
Nitric Acid Process	Continuous	360
Ammonia Process	Continuous	360
LAN Fertilizer Process	Continuous	360
Phosphorous Processes No.42 Ammonia Processes No. 43	Batch	Seasonal
Ammonium Sulphate and Ammonium Chloride Processes No.5	Continuous	360
Explosives		
20D	Continuous	365
D-Houses	Continuous	260
E-Houses	Continuous	260
F2	Continuous	260

Magazines	Continuous	365
Bulk Plant	Continuous	365

5.5. Graphical Process Information

SASOL NITRO, SECUNDA EXPLOSIVES PLANT AIR EMISSIONS



KEY:
1. Boiler stack fuel gas
2. NA Plant Stack
3. NA Storage tank vent
4. 55%AN Storage Tank vent- Fugitive
5. 55%AN Storage Tank vent- Fugitive
6. Limestone silos-Fugitive Emissions
7. AN Plant stack
8. Granulation Plant Stack

6. RAW MATERIALS AND PRODUCTS

6.1. Raw materials used

Raw Material Type	Maximum Permitted Consumption Rate (Volume)	Units (quantity/period)
Fertilisers		
Granulation Plant		
Ammonia	[redacted]	tons/year approx
Ammonium Nitrate		tons/year approx
Ammonium Sulphate		tons/year approx
Limestone		tons/year approx
Galoryl Coating		tons/year approx
Nitric Acid Plant		
Ammonia		tons/day
Air		Nm^3/day
Water		m^3/day
Ammonium Nitrate Plant		
Ammonia		tons/year
Nitric Acid		tons/year
Liquid Fertilizer Plant		
Water		tons/year approx
Ammonia		tons/year approx
Potassium Chloride		tons/year approx
Urea		tons/year approx
Phosphoric Acid		tons/year approx
Ammonium Nitrate		tons/year approx
Zinc		tons/year approx
Ammonium Sulphate Plant		
Ammonia		kg/hr
Sulphuric Acid		tons/year approx
Explosives (open burning grounds)		
Waste		Kg/d

6.2. Production rates

Product Name	Maximum Permitted Production Capacity (Volume)	Units (quantity/period)
Ammonium Nitrate Plant		
Ammonium Nitrate		tons/hr
Granulation Plant (LAN) Plant		
LAN		tons/day
Liquid Fertilizer Plant		
Nitric Acid Stack Plant		
Nitric Acid		tons/day
Ammonium Sulphate Plant		
Ammonium Sulphate		tons/day

6.3. Materials used in energy sources

Energy Source	Actual Consumption Rate (Quantity)	Units (quantity/period)	Material Characteristics
Nitric Acid Processes No.4			
Natural Gas Start-up boilers		GJ/annum	
Electricity		MWH/annum	
Ammonia Processes No.43			
Electricity		MWH/annum	
LAN Fertilizer Processes No.2			
Electricity		MWH/annum	
Phosphorous Processes No.42 **Ammonia Processes No. 43**			
Electricity		MWH/annum	
Ammonium Sulphate and Ammonium Chloride Processes No.5			
Electricity		MWH/annum	
Natural Gas		GJ/annum	
Electricity		MWH/annum	

Explosives			
Electricity	[redacted]	MWH/annum	-

LICENSING OFFICER
Govan Mbeki Sasol South Africa (Pty) Ltd *Sasol Nitro/0020/2015/F02 31 March 2015*

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)
1	Nitric Acid Stack	[redacted]		61	20.5	1.52	100	120 000	18.36
2	Ammonium Nitrate Production Plant Stack			45.3	38.8	0.80	76.5	20413	11.28
3	Granular Fertilizer Production Plant Stack (LAN)			64.0	42	3.0	40	420000	12.38
4	Ammonium Sulphate Stack			21	To be provided	0.91	22.1	40 401	17.25

6.4.2. Area and or line source parameters

Area Source Code	Source Name	Source Description	Latitude (decimal degrees) of SW corner	Longitude (decimal degrees) of SW corner	Height of Release Above Ground (m)	Length of Area (m)	Width of Area (m)	Emission Hours	Type of Emission (Continuous / Intermittent)
Explosives									
OB1	Open burning waste pile	A Pile of waste material from the explosives plant including emulite and matrix mixed with dry scrap wood, paper and cardboard, etc. is prepared in the burning area and doused with paraffin to facilitate burning	[redacted]		Ground level	82	57	(10h00 – 16h00)	Intermittent

LICENSING OFFICER
Govan Mbeki Sasol South Africa (Pty) Ltd *Sasol Nitro/0020/2015/F02 31 March 2015*

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 Technology Name and Model	Abatement Equipment Technology Manufacture Date	Commission Date	Date of Significant Modification / Upgrade	Technology Type	Design Capacity	Minimum Control Efficiency (%)	Minimum Utilisation (%)
Fertilisers											
1	Nitric Acid Stack	Not available	Selective Catalytic Reduction	Not available						95	100%
2	Absorption tower	Not Available								95	100%
3	Granular Fertilizer Production Plant Stack (LAN)	600-FT-	Dust filter of filler	100%	Not available	2011	Not available	Not available	Not available	Not available	100%
4		600-SB-2001-01	Air Mix Scrubber	100%	2010	2011	Not available	Scrubbing	220m^3	Not available	100%
5		600-SB-2002available	Venturi Scrubber	Pressure Vessel-Venture Scrubber	2010	2011	Not available	Venturi Scrubbing	240m^3	Not available	100%

6	Ammonia Processes No.43	Not available	Kimre Scrubber Monsanto Scrubber	Kimre Monsanto-Chemserv e	Not available	March 2004	Not available	Not available	Not available	Not stated	100%
7	Ammonium Sulphate Stack	Not available	Bag Filter Wet Scrubber Cyclones Packed Bed Scrubber	Not available	Not available	March 2008	Not available	Not available	Not available	95	100%
Explosives											
8	20D - Boilers	A3024	Electric boilers	Allmech cc Electrode steam boilers, A600P	2006	2006	Not available	Electrode Steam Boiler	0,4919 m3	Not available	100%
9		1108	Not available	Allmech cc Electrode steam boilers, A .1250P	2007	2007	Not available	Electrode Steam Boiler	1,2814 m3	Not available	100%-
10	Continuous Film Splicing	Not available	Continuous film splicing on all KP machines(Cartri dging Machines)	Not available	Not available	Not available	Not available	Not available	Not available	Not available	100%

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 after their promulgation.

7.1.5. Existing plants shall submit atmospheric impact reports to the licensing authority on its Particulate Matter impact annually.

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/Nm³)	Date to be Achieved By		
1. Nitric Acid Stack	NOx as NO2	2000	1 April 2015	Daily	Continuous
	NH_3	100	1 April 2015	Daily	Continuous
2 .Ammonium Nitrate Stack	NH_3	180 on a wet basis	Immediately	Daily	Continuous
	Particulate Matter	50 on a wet basis	1 April 2015	Daily	Continuous
3 . Granular Fertilizer (LAN) stack	NH_3	300	Immediately	Monthly	Continuous
	Particulate Matter	100	Immediately	Monthly	Continuous
4.(Ammonium Sulphate Stack	NH3	100	Immediately	Daily	Continuous
	Particulate Matter	100	Immediately	Daily	Continuous

Stack	Particulate Matter	100	immediately	daily	continuous
	Section 21 of NEM:AQA				

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^3/hr)	Maximum Gas Exit Velocity (m/s)	Emission Hours	Maximum Permitted Duration of Emissions
		(mg/Nm^3)	Date to be Achieved By					
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.

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
1	As per annexure A of Section 21 of NEM:AQA	Annual	24 hours	NOx, NO, NH3	NOx, NO, NH3	annual	With written permission from authority
2	As per annexure A of Section 21 of NEM:AQA	Annual	24 hours	NH3, PM	NH3, PM	annual	With written permission from authority
3	As per annexure A of Section 21 of NEM:AQA	Annual	24 hours	NH3, PM	NH3, PM	annual	With written permission from authority
4	As per annexure A of Section 21 of NEM:AQA	Annual	24 hours	NH3, PM	NH3, PM	annual	With written permission from authority

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 Control Efficiency	Method of Monitoring Measures Effectiveness	Contingency Measures
OB1	A Pile of waste material from the explosives plant including emulite and matrix mixed with dry scrap wood, paper and cardboard, etc. is prepared in the burning area and doused with paraffin to facilitate burning	Dust Regulations SASOL operating procedures	1 April 2015	Dust fall monitoring plan according to dust control regulations (NEMA:AQA S32), monthly SO2 passive diffusive measurements, monthly	In line with approved Sasol Nitro operational procedures

7.6. 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.

7.7. Investigation

Investigation	Purpose	Completion Date
Ammonia	To identify and distinguish which Ammonia is for the process and which one is for treatment	06 months from date of issue
Disposal method for OB1	To determine the efficiency rate of the method used in relation to products or waste burned	06 months from date of issue
Ammonium Nitrate stack	To investigate the effectiveness of the abatement method to treat the efficiency of Ammonium Nitrate in trapping the Particulate matter	06 months from date of issue

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

The disposal of any waste and effluent arising from any abatement equipment control technology must comply with the applicable legislation and requirements of the relevant authorities.

Source code / name	Waste / Effluent Type	Hazardous Components Present	Method of Disposal
Venturi	Scrubbers	Heavy metal trace elements	At registered landfill site in line with National Environmental Management: Waste Act, 2004
Ash	Ash	Heavy metal trace elements	At registered landfill site in line with National Environmental Management: Waste Act, 2004

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 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.

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 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.