Sasol South Africa Ltd

Sasolburg Operations

AEL No: FDDM-MET-2013-23-P2

Annual Emission Report

Prepared for

Fezile Dabi District Municipality

31 August 2018

Reporting period: July 2017 – June 2018

Date Submitted: 31 August 2018

DECLARATION

Unless otherwise specified in the body of the report, Sasol South Africa Ltd, through its Sasolburg Operations, certifies that the sampling campaign for periodic emission monitoring for its Gas Loop, Utilities and Chemicals facilities, was conducted during normal plant operating conditions.

31 August 2018 **Emission Control Officer: Ristoff van Zyl**

EXECUTIVE SUMMARY

The content of this report is in alignment with the requirements of section 7.7 of the Atmospheric Emissions Licence (AEL), which include the following:

- Pollutant emissions trends
- Compliance audit reports
- Major upgrades projects (i.e. abatement equipment or process equipment)
- Greenhouse gas emissions

The information pertaining to these items above are addressed in the relevant subsection in the body of the report.

Sasolburg Operations' Gas Loop, Utilities and Chemicals plants complied with its Atmospheric Emissions License requirements.

REPORT DETAILS

REFERENCE	FY18 Annual Emission Report - FDDM-MET-2013-23 P2
REPORT TITLE	Annual Emission Report
REPORTING PERIOD	01 July 2017 to 30 June 2018
DATE SUBMITTED:	31 August 2018
PREPARED FOR:	Fezile Dabi District Municipality Metsimaholo Municipality Free State Province (Licencing Authority)
PREPARED BY:	Sasol South Africa Limited: Sasolburg Operations Klasie Havenga Road Sasolburg 1947 Tel: +27 (0)16 920 4913 E-mail: ristoff.vanzyl@sasol.com
DESCRIPTION OF SITE (Erf)	Subdivision 6 of 2 of Driefontein No- 2 and certain subdivisions of the farm Saltberry Plain, Roseberry Plain Flerewarde and Antrim and subdivision 5 of 4 of Montrose, District of Sasolburg, Free State
INDUSTRY SECTOR	Petrochemical
SITE COORDINATES	Latitude 27.84206E Longitude 26.82678S
SIGNED:	Ristoff van Zyl Signed: 
APPROVER:	Bob Kleynjan Signed: 

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ACRONYMS

The following abbreviations appear in this report:

US EPA	United States Environmental Protection Agency
GHG	Greenhouse gas
PM	Particulate Matter
VOC	Volatile Organic Compounds
NOx	Nitrogen oxides
NO_2	Nitrogen dioxide
NO	Monoxide of nitrogen
SO_2	Sulphur dioxides
CO	Carbon monoxide
CO_2	Carbon dioxides
SO	Sasolburg Operations

1 INTRODUCTION

Based on the requirements stipulated within SO's Atmospheric Emissions Licenses, as well as the condition stipulated within Section 17 of the Minimum Emission Standards that the status of compliance must be reported on an annual basis, SO herewith submits its annual compliance monitoring report for its Gas Loop, Utilities and Chemicals facility, Atmospheric Emission License number FDDM-MET-2013-23-P2.

The report covers the reporting period from July 2017 to June 2018. Isokinetic, together with inorganic and organic gas emissions monitoring was conducted by an independent service provider. Since an accreditation system for stack sampling is not in place yet for South Africa, the sampling company is not accredited for the sampling methods, although they are accredited from an ISO/IEC17025 management perspective and has expressed their intention to be fully accredited once SANAS has finalised the technical accreditation requirements. They do however make use of SANAS accredited laboratories for all chemical analyses.

Continuous Emissions Monitoring also formed part of the compliance monitoring for Steam Stations and the results are included in this report.

A comparison with license conditions is conducted in this report to demonstrate compliance with Sasol's emission limits as specified within its License as at the date of sampling.

It should also be noted that the Air Quality Officer's office did a review of the AELs during the reporting period which combined previous AELs to accurate reflect Sasol's restructured operating model. Based on this AEL FDDM-MET-2013-23-P2 is a combination of facilities previously covered under AELs FDDM-MET-2013-23-P1 (Previously Sasol Infrachem), FDDM-MET-2013-20 (Previously Sasol Wax) and FDDM-MET-24 (Previously Sasol Polymers). The reporting is therefore done based on the conditions applicable in the AELs that were valid at the time of sampling.

2 SERVICE PROVIDERS

2.1 LEVEGO

Levego specialises in the consultation and provision of stationary source, air quality and process off-gas measurements and the supply of specialised source monitoring equipment. Their main objective is to provide a service which meets customer license requirements by utilising recognised international standards (such as ISO, B.S, EN and EPA).

Levego's Directors have over forty-five years combined experience in the field of air quality monitoring and industrial emission source control.

Table 2.2.1: LEVEGO Contact details

LEVEGO Contact details	
Physical address	Building R6, Pinelands Site Ardeer Road, Modderfontein 1645
Postal address	PO Box 422, Modderfontein 1645
Telephone No:	+27 11 608 4148
Fax No	+27 011 608 2621
Email	info@levego.co.za

3 MONITORING AND SAMPLING METHODOLOGY

Continuous emissions monitoring is conducted at Steam Stations 1 & 2 as required by the AEL. Thermal Oxidation is also subject to this condition but has remained decommissioned for the entire reporting period.

All periodic sampling was conducted by the service provider according to international acceptable sampling methodologies. Cobalt Catalyst Plant is also subject to Periodic Testing, however it has also remained decommissioned for the entire reporting period.

The results for the online monitoring are reported in the graphs below whereas the periodic sampling/monitoring reports are included within the table below. Comparison with limit values is done based on the limit values applicable at the time of sampling.

4 RESULTS

4.1 Pollutant emissions

4.1.1: Third party sampling results

Plant Name	Point Source Name	Pollutant	Volumetric Flow Rate (Normal) Nm^3/h	Volumetric Flow Rate (Actual) m^3/h	Mass Flow kg/h	Measured Concentration mg/Nm^3 @10% O2 (where applicable)	AEL Limit Value mg/Nm^3 @10% O2 (where applicable)	Sampling Method
ATR	A-Train	PM	338 004	795 492	30.95	42.29	120	USEPA Method 5
		SO_2			0.23	0.57	1 700	USEPA Method 6C
		NOx (as NO_2)			16.16	38.17	1 700	USEPA Method 7E
	B-Train	PM	366 808	872 712	0.99	1.63	120	USEPA Method 5
		SO_2			7.09	5.79	1 700	USEPA Method 6C
		NOx (as NO_2)			46.63	46.10	1 700	USEPA Method 7E
Steam Stations	Boiler 4	NOx (as NO_2)	139 132	260 000	87.61	629.70	1 450	USEPA Method 7E

		SO_2			12.52	89.97	3500	USEPA Method 6C
	Boiler 5	NOx (as NO_2)	135 379	252 985	157.89	1 166	1 450	USEPA Method 7E
		SO_2			45.73	337.77	3 500	USEPA Method 6C
	Boiler 6	NOx (as NO_2)	135 379	252 985	137.35	1 015	1 450	USEPA Method 7E
		SO_2			46.35	342.37	3 500	USEPA Method 6C
	Boiler 7	NOx (as NO_2)	135 379	252 985	114.80	848.02	1 450	USEPA Method 7E
		SO_2			17.65	130.36	3 500	USEPA Method 6C
	Boiler 8	NOx (as NO_2)	135 379	252 985	156.36	1 155	1 450	USEPA Method 7E
		SO_2			1.74	12.84	3 500	USEPA Method 6C
	Boiler 9	NOx (as NO_2)	132 819	248 202	103.82	781.65	1 250	USEPA Method 7E
		SO_2			12.02	90.53	3 500	USEPA Method 6C
	Boiler 10	NOx (as NO_2)	132 819	248 202	142.49	1 073	1 250	USEPA Method 7E

		SO_2			18.89	142.23	3 500	USEPA Method 6C
	Boiler 11	NOx (as NO_2)	132 819	248 202	89.23	671.79	1 250	USEPA Method 7E
		SO_2			20.20	152.05	3 500	USEPA Method 6C
	Boiler 12	NOx (as NO_2)	132 819	248 202	149.59	1 126	1 250	USEPA Method 7E
		SO_2			28.94	217.88	3 500	USEPA Method 6C
	Boiler 13	NOx (as NO_2)	132 819	248 202	92.86	699.14	1 250	USEPA Method 7E
		SO_2			22.89	172.31	3 500	USEPA Method 6C
	Boiler 14	NOx (as NO_2)	132 819	248 202	131.01	986.38	1 250	USEPA Method 7E
		SO_2			15.69	118.10	3 500	USEPA Method 6C
	Boiler 15	NOx (as NO_2)	132 819	248 202	72.07	542.63	1 250	USEPA Method 7E
		SO_2			154.61	1 164	3 500	USEPA Method 6C

Prillan Plant	Prillan Scrubber 1	PM	44 568	63 036	0.04	0.94	50	USEPA Method 5
		NH_3			0.93	20.79	100	USEPA CTM 027
	Prillan Scrubber 2	PM	52 488	74 628	0.09	1.70	50	USEPA Method 5
		NH_3			1.34	25.46	100	USEPA CTM 027
	Prillan Tower (A-B-C)	PM[1]	200 484	267 120	0.39	1.92	50	USEPA Method 5
		NH_3			2.14	10.68	100	USEPA CTM 027
Nitric Acid Plant	NAP Stack	NOx[2] (as NO2)	71 222	150 000	8.57	120.28	500	USEPA Method 7E
Rectisol	Rectisol	VOCs	Combined with Steam Station 1 stacks			14.89	40 000	USEPA Method 18
Thermal Oxidation #	B6990	The Thermal Oxidation Plant was shut down in November 2016 following receipt of a Notice of intent to issue a compliance notice received from the Environmental Management Inspectorate (EMI). As a result, sampling for these point sources could not take place as the incinerators were offline.						
	B6993							
	B6930							

N-Base, Cresol, Phenosolvan and TNPE	Cresol Fuel Gas Furnace	PM	7 531	21 192	0.02	2.58	120	USEPA Method 5
		SO_2			<0.01	1.5	1700	USEPA Method 6C
		NOx (as NO_2)			0.3	27.03	1700	USEPA Method 7E
	Cresol SOx Scrubber on N-Base Unit	SO_3 [3]	652.58	971.91	<0.01	1.32	100	USEPA Method 8
		VOCs	617.69	954.09	<0.01	11.79	40 000	USEPA Method 25A
	Phenol Stack	VOCs	60.1	79.1	0.02	264.9	40 000	USEPA Method 25A
Monomers	Steam Cracker Furnace (B002A/B)	PM	29 843	119 366	0.07	2.36	120	USEPA Method 5
		SO_2			0.03	0.96	1 700	USEPA Method 6C
		NOx (as NO_2)			0.32	10.67	1 700	USEPA Method 7E
	Steam Cracker Furnace (B003)	PM	21 435	44 852	0.06	2.67	120	USEPA Method 5
		SO_2			0.02	0.735	1 700	USEPA Method 6C

		NOx (as NO_2)			0.81	37.62	1 700	USEPA Method 7E
	MEA Regen Off Gas	Methyl amine[4]	255	345	<0.01	0.38	10	NIOSH Method
Cobalt Catalyst plant	All sources	The Cobalt Catalyst Plant remained decommissioned for the entire FY18 due to market demands. The plant will remain offline until further notice.						
Paraffin	Oven B4701	PM	2 700	7 848	0.06	26.64	120	USEPA Method 5
		SO_2			0.01	4.74	1 700	USEPA Method 6C
		NOx (as NO_2)			<0.01	BDL	1 700	USEPA Method 7E
	Oven B4702	PM	2 844	7 416	<0.01	2.55	120	USEPA Method 5
		SO_2			0.01	5.98	1 700	USEPA Method 6C
		NOx (as NO_2)			<0.01	BDL	1 700	USEPA Method 7E
	Oven B4801	PM	4 752	12 132	0.06	27.75	120	USEPA Method 5
		SO_2			0.07	30.94	1 700	USEPA Method 6C
		NOx (as NO_2)			<0.01	BDL	1 700	USEPA Method 7E

	Oven B4802	PM	3 024	6 948	0.01	3.22	120	USEPA Method 5
		SO_2			<0.01	2.76	1 700	USEPA Method 6C
		NOx (as NO_2)			<0.01	BDL	1 700	USEPA Method 7E
SGEPP	Engine 1	NOx (as NO_2)	33 984	99 900	4.36	128.39	400	USEPA Method 7E
		SO_2			0.02	0.71	1170	USEPA Method 6C
		PM			0.32	9.30	50	USEPA Method 5
	Engine 2	NOx (as NO_2)[5]	43 740	96 120	0.88	258.3	400	USEPA Method 7E
		SO_2			0.01	0.27	1170	USEPA Method 6C
		PM			1.04	23.78	50	USEPA Method 5
	Engine 3	NOx (as NO_2)	36 756	118 080	10.75	292.50	400	USEPA Method 7E
		SO_2			0.04	1.12	1170	USEPA Method 6C
		PM			0.31	8.51	50	USEPA Method 5

	Engine 4	NOx (as NO_2)	38 664	119 304	8.19	211.76	400	USEPA Method 7E
		SO_2			0.01	0.33	1170	USEPA Method 6C
		PM			0.30	7.78	50	USEPA Method 5
	Engine 5	NOx (as NO_2)	37 044	114 192	791.41	213.64	400	USEPA Method 7E
		SO_2			1.19	0.32	1170	USEPA Method 6C
		PM			14.04	3.79	50	USEPA Method 5
	Engine 6	NOx (as NO_2)	41 652	126 180	6.19	148.59	400	USEPA Method 7E
		SO_2			0.06	1.44	1170	USEPA Method 6C
		PM			0.18	4.31	50	USEPA Method 5
	Engine 7	NOx (as NO_2)	39 456	104 652	4.74	120.20	400	USEPA Method 7E
		SO_2			0.36	9.06	1170	USEPA Method 6C
		PM			0.26	6.68	50	USEPA Method 5

	Engine 8	NOx (as NO_2)	38 160	114 732	8.35	218.70	400	USEPA Method 7E
		SO_2			0.02	0.43	1170	USEPA Method 6C
		PM			0.21	5.51	50	USEPA Method 5
	Engine 9	NOx (as NO_2)	38 052	114 156	4.67	122.64	400	USEPA Method 7E
		SO_2			0.03	0.88	1170	USEPA Method 6C
		PM			0.15	4.00	50	USEPA Method 5
	Engine 10	NOx (as NO_2)	41 472	92 340	5.37	129.49	400	USEPA Method 7E
		SO_2			0.14	3.27	1170	USEPA Method 6C
		PM			0.10	2.45	50	USEPA Method 5
	Engine 11	NOx (as NO_2)	37 224	117 396	11.02	296.08	400	USEPA Method 7E
		SO_2			0.03	0.77	1170	USEPA Method 6C

		PM			0.18	4.79	50	USEPA Method 5
	Engine 12	NOx (as NO_2)	36 504	110 880	11.20	306.95	400	USEPA Method 7E
		SO_2			0.03	0.74	1170	USEPA Method 6C
		PM			0.64	17.58	50	USEPA Method 5
	Engine 13	NOx (as NO_2)	29 124	65 376	4.25	145.93	400	USEPA Method 7E
		SO_2			0.02	0.66	1170	USEPA Method 6C
		PM			0.13	4.41	50	USEPA Method 5
	Engine 14	NOx (as NO_2)	38 808	86 184	7.15	184.18	400	USEPA Method 7E
		SO_2			0.01	0.29	1170	USEPA Method 6C
		PM			0.37	9.54	50	USEPA Method 5
	Engine 15	NOx (as NO_2)	41 436	126 612	11.63	280.74	400	USEPA Method 7E
		SO_2			0.03	0.72	1170	USEPA Method 6C

		PM			0.17	4.03	50	USEPA Method 5
	Engine 16	NOx (as NO_2)	40 104	125 712	10.16	253.40	400	USEPA Method 7E
		SO_2			0.02	0.55	1170	USEPA Method 6C
		PM			0.04	0.95	50	USEPA Method 5
	Engine 17	NOx (as NO_2)	30 132	93 672	6.13	203.46	400	USEPA Method 7E
		SO_2			0.01	0.37	1170	USEPA Method 6C
		PM			0.21	7.10	50	USEPA Method 5
	Engine 18	NOx (as NO_2)	41 328	92 844	5.98	144.68	400	USEPA Method 7E
		SO_2			0.02	0.56	1170	USEPA Method 6C
		PM			0.16	3.83	50	USEPA Method 5

Notes:

1: The particulates for the main Prill Tower seem very low although Levego confirmed that the value is correct.

2: Flow measurements at the NAP plant could not be taken due to the size of the sampling line, therefore design flow rates are reported.

3: During the second sampling campaign on the N-Base SOx scrubber, erratic, elevated and unstable results were measured over the sampling time which is inconsistent with normal operations. A root cause analysis was conducted and the sampling campaign was confirmed to have been

conducted under unstable and unrepresentative conditions. Some concerns regarding the sampling and associated results were also raised. Based on this finding, the results were flagged as having been sampled during an upset condition and the sampling campaign was repeated. Stable, valid and accurate results were obtained, similar to the results during the first sampling campaign, as expected.

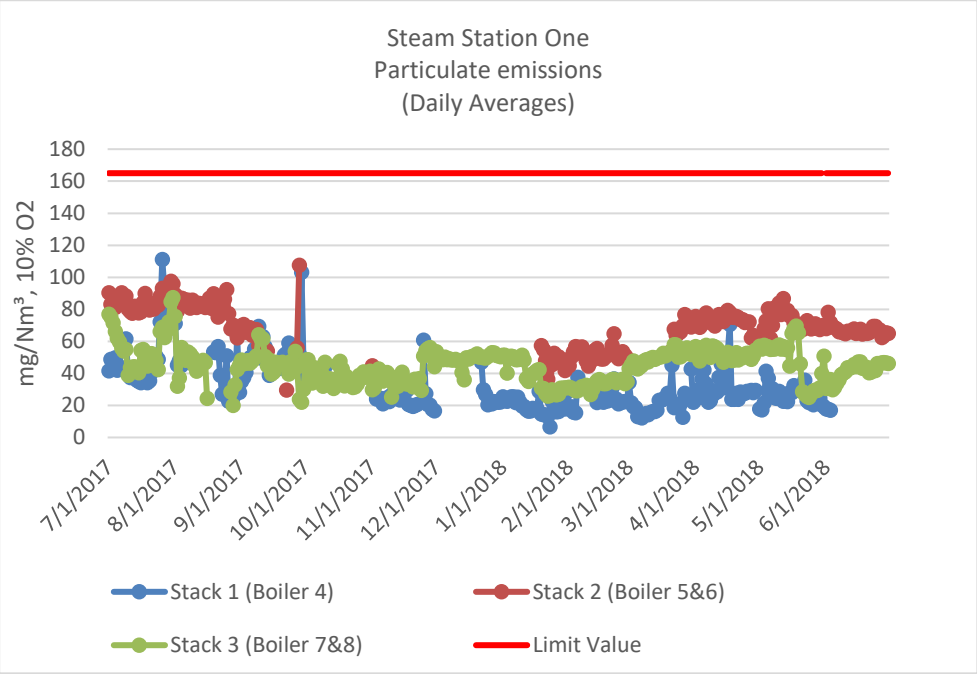
4: The MEA regen line is a small vent line on which flow measurements cannot be conducted. The design flows as per the AEL is therefore included in the table. Since the usage of amines are below the threshold value contained within the AEL, this point source will be requested to be removed from the AEL during the March 2019 AEL renewal.

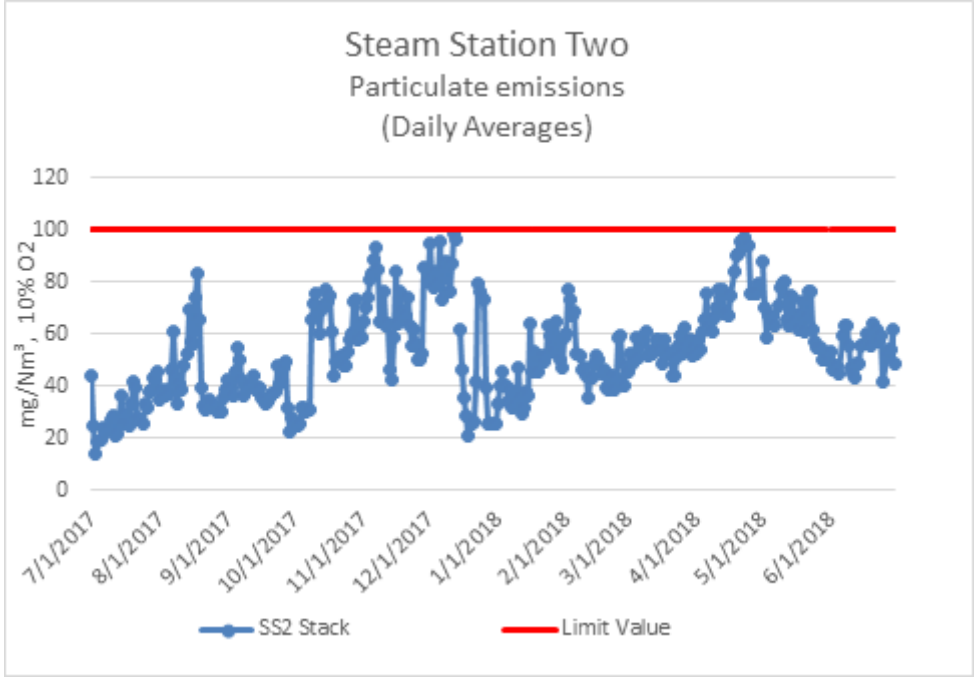
5: SGEPP Engine 2's NOx value reported by the third party seemed excessively low, even though Levego confirmed the correctness of the result. Since the value is still deemed unbelievably low, the on-line daily averaged value is reported herein to improve representativeness.

4.1.2 Continuous emission monitoring results for Steam Stations

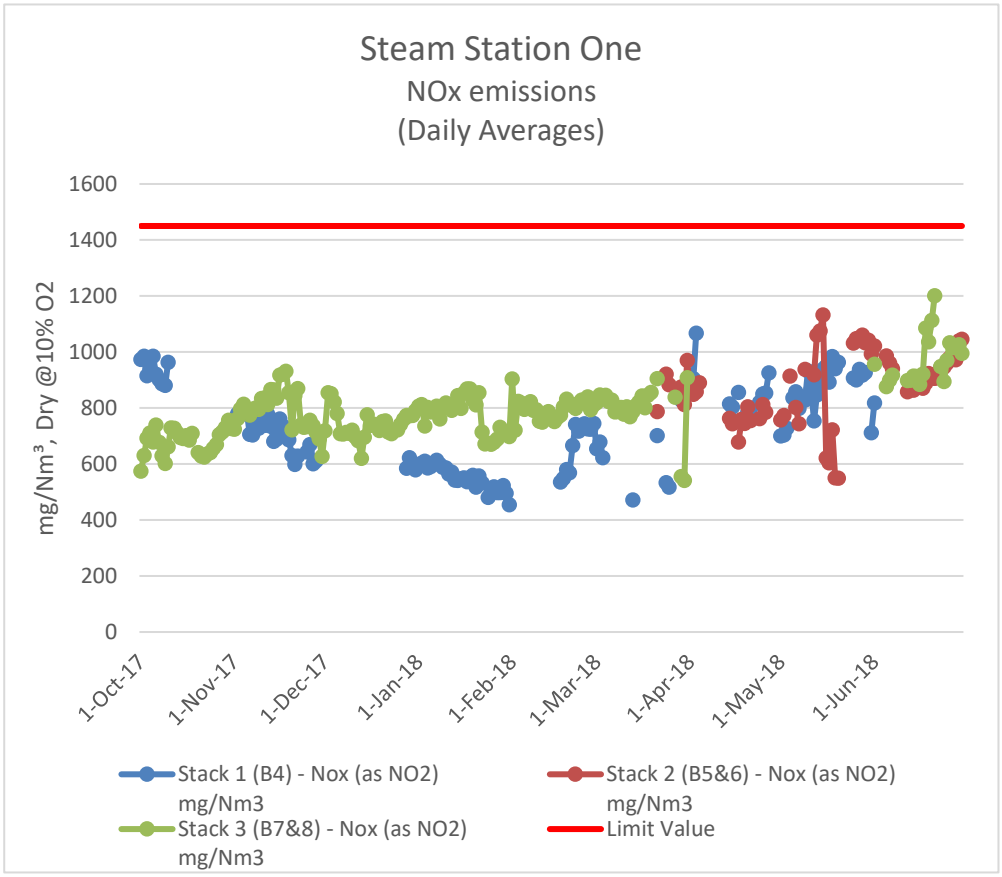
The online measurements for Steam Stations 1 and 2 are indicated below. Both Steam Station 1 and 2 operated well within its AEL limit values for particulates, NOx and SO_2.

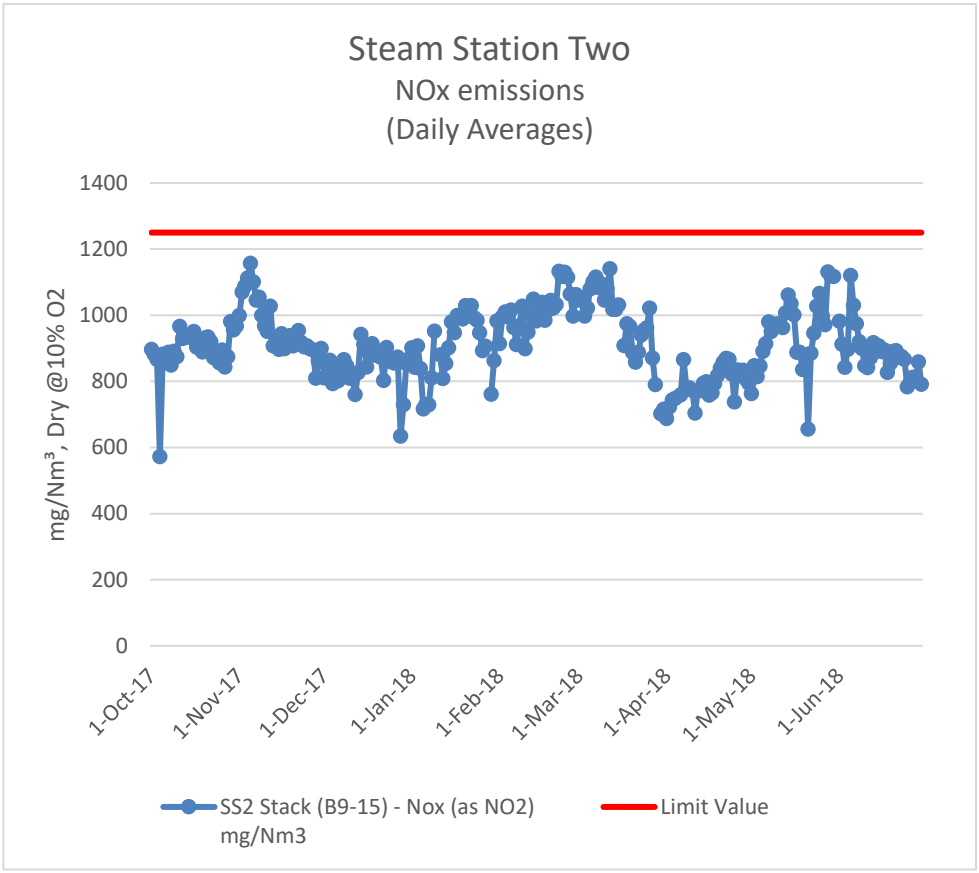
The online analysers for NOx and SO_2 became fully functional and operational in October 2017 as reported in the previous compliance report, and the results and trends were reported to the Air Quality Officer as part of Sasol's monthly reporting.

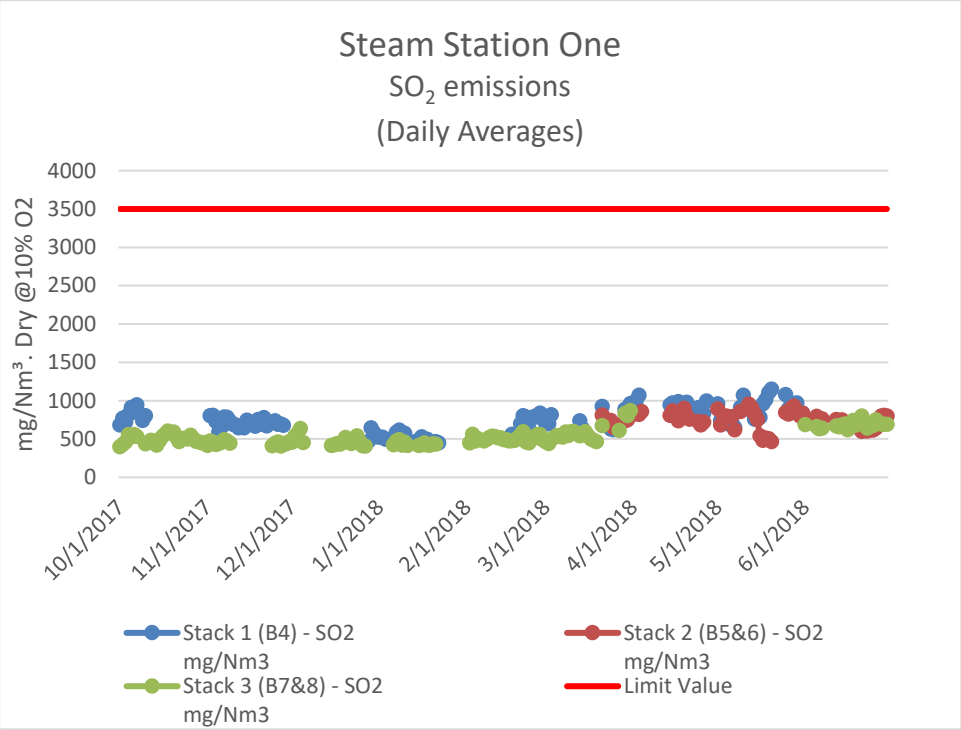


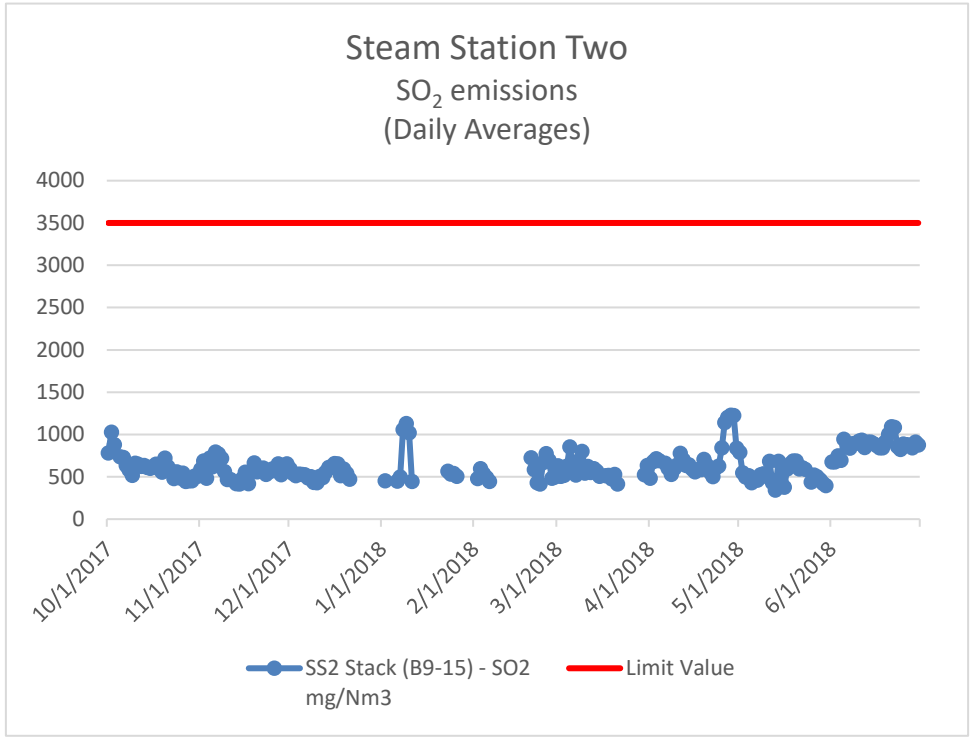


As indicated within the December 2017 monthly report, a deviation was experienced on Steam Station 2 on 14 December 2017 which was associated with an instrument error and an upset condition. The slightly elevated concentration was flagged and removed for reporting purposes as it was associated with abnormal conditions.


Steam Station One
NOx emissions
(Daily Averages)
mg/Nm³, Dry @10% O2
1600
1400
1200
1000
800
600
400
200
0
1-Oct-17
1-Nov-17
1-Dec-17
1-Jan-18
1-Feb-18
1-Mar-18
1-Apr-18
1-May-18
1-Jun-18
Stack 1 (B4) - Nox (as NO2) mg/Nm3
Stack 2 (B5&6) - Nox (as NO2) mg/Nm3
Stack 3 (B7&8) - Nox (as NO2) mg/Nm3
Limit Value


Steam Station Two
NOx emissions
(Daily Averages)
mg/Nm³, Dry @10% O2
1400
1200
1000
800
600
400
200
0
1-Oct-17
1-Nov-17
1-Dec-17
1-Jan-18
1-Feb-18
1-Mar-18
1-Apr-18
1-May-18
1-Jun-18
SS2 Stack (B9-15) - Nox (as NO2) mg/Nm3
Limit Value


Steam Station One
SO2 emissions
(Daily Averages)
mg/Nm³. Dry @10% O2
4000
3500
3000
2500
2000
1500
1000
500
0
10/1/2017
11/1/2017
12/1/2017
1/1/2018
2/1/2018
3/1/2018
4/1/2018
5/1/2018
6/1/2018
Stack 1 (B4) - SO2 mg/Nm3
Stack 2 (B5&6) - SO2 mg/Nm3
Stack 3 (B7&8) - SO2 mg/Nm3
Limit Value


Steam Station Two
SO2 emissions
(Daily Averages)
4000
3500
3000
2500
2000
1500
1000
500
0
10/1/2017
11/1/2017
12/1/2017
1/1/2018
2/1/2018
3/1/2018
4/1/2018
5/1/2018
6/1/2018
SS2 Stack (B9-15) - SO2 mg/Nm3
Limit Value

Data availability for the gaseous Continuous Emission Monitoring system

% data availability	SS1 Stack 1	SS1 Stack 2	SS1 Stack 3	SS2 Stack
NOx as NO_2	76.52	89.22	74.565	96.335
SO_2	74.32	89.22	48.745	60.07

Maintenance planning and scheduling during the initial stages of operation was based on the Manufacturer's recommendation of 6 monthly and annual maintenance. During the first 6 months some challenges were experienced with blocked heaters and this was corrected as and when it was detected. During the 6 monthly routine maintenance a step change in data occurred and it was realised, in consultation with the equipment supplier, that more regular maintenance is required. Consequently some historical data was flagged resulting in the loss of data. It seems that the SO_2 is more sensitive to heater blockages than NOx which is why the SO_2 data availability is more affected than the NOx.

Air ingress on the O_2 analyser, analyser breakdown and intermittent communication failure also resulted in some data losses. Data availability has increased through (1) the increase of maintenance frequency, (2) a more rigorous evaluation of data on a daily basis and (3) improvements on the communication software. SO continues to work towards obtaining high quality data availability and will continue to optimise the maintenance on the system

4.2 Compliance audit reports

Audit finding	Corrective action taken	Status
None for Financial Year 2018		

4.3 Major upgrades projects

Project description	Planned completion date	Status
Upgrade of ESP and installation of Low NOx burners on Boiler 12	Start-up commenced in May 2018 with some changes to be made during the September 2018 shutdown. Re-start-up will take place after the September 2018 boiler shutdown.	As at the end of the reporting period neither the upgraded ESP nor the Low NOx burners has yielded satisfactory emission results according to their design yet. Optimisation and problem solving continues.
Upgrade of ESP for Boiler 9 to meet the new plant standards as per Sasolburg Operations' MES roadmap	After the September 2018 shut down	In progress
Upgrade of ESP for Boiler 14 to meet the new plant standards as per Sasolburg Operations' MES roadmap	February 2019	To Commence in October 2018

4.4 Greenhouse gas emissions

Total Direct CO_{2eq} emissions	Greenhouse gas emissions are reported on a Sasol Group level to the National DEA and not on a facility level, as per agreement with the DEA.

5 NON COMPLIANCE

Non-compliance description	Action to be implemented	Completion date	Status
None			

6 POSTPONEMENT TO COMPLY WITH THE MINIMUM EMISSION STANDARDS

Sasolburg Operations (SO) submitted an application to postpone compliance with the Minimum Emission Standards for its Thermal Oxidation plants from 2018 to 2023. The National Air Quality Officer in consultation with the Air Quality Officer from FDDM granted SO its postponement request until 1 April 2020. This decision and associated conditions have been included within the reviewed FDDM-MET-2013-23-P2 AEL. However SO would like to emphasise that the Thermal Oxidation facility remains decommissioned until the entire matter has been resolved with the Environmental Management Inspectorate.

7 OFFSET IMPLEMENTATION PLAN

During 2015 the National Air Quality Officer granted Sasol postponement from some of the existing plant standards applicable from 1 April 2015, as per Sasol Infrachem's (as SO was named at the time) 2014 postponement application. One of the conditions pertaining to the postponement decision was that Sasol had to implement an Offset Plan to reduce Particulate and SO_2 levels in the ambient air quality in the communities around its facility. After concluding a comprehensive stakeholder engagement process, Sasol and Natref submitted a joint offset implementation plan to the DEA in May 2016 which the National Air Quality Officer approved in February 2017.

7.1 Offset Implementation Plan

Herewith a summary of the progress to date regarding the Offset Implementation Plan focusing on the community of Zamdela:

7.1.1 Baseline measurement campaign

a) The baseline quality of life, source apportionment and background monitoring has been completed and the final report was issued by the Service Provider to Sasol/Natref. The conclusion on the baseline report is that the Offset projects identified do address some of the problematic sources and based on this, SO and Natref continued with the implementation of its Offset initiatives. Some additional information was also highlighted namely that there is a significant number of households that are burning wood. Part of the improvement of the Offset project is to identify possible interventions on how to address the additional sources, such as the high levels of wood burning, in the community. This will be investigated during the next financial year.

b) Ambient monitoring has been conducted by the North West University during the reporting period and will continue for the next financial year to further extend the baseline results and start tracking ambient air quality improvements, if any, due to the interventions being implemented.

7.1.2 Vehicle emission monitoring project

a) As part of the Offset Project, the Metsimaholo Local Municipality Fire and Traffic Departments have been trained in the execution of vehicle emission testing and some vehicles have been tested as part of their training.
b) All equipment has also been donated to the Municipality and a maintenance and calibration contract has been put in place by Sasol/Natref for the equipment to be maintained at a high level of integrity.
c) Sufficient equipment was donated for the Municipality to have two mobile vehicle emission testing sets for next to the road testing and one stationary set for re-measurement and confirmation that Hazardous Good vehicles also comply with emission limits prior to being issued with the appropriate permits/licenses.
d) The expectation is that the Municipality will commence with testing during the second half of 2018.

7.1.3 Non-recyclable waste removal

a) Sasol/Natref has placed 100 skips in Amelia and Iraq which is serviced on a weekly basis by a Sasol/Natref appointed service provider. Unfortunately 4 skips disappeared from Iraq, however Sasol and Natref is busy working with the community to ensure the full utilisation and the necessary care for the skips.
b) The tonnage of waste removed is being audited to confirm the accuracy and will be confirmed in due course.
c) In general the community is happy with the intervention although some challenges with waste being dumped next to the skips are experienced. This is will be addressed through an education and awareness campaign planned for the following financial year.
d) A waste compactor vehicle has also been purchased and will be donated to the Municipality for waste removal through servicing of the skips. This forms part of the sustainability of the project.

7.1.4 Recyclable waste removal

a) Sasol/Natref continues to engage with the Metsimaholo Local Municipality to address some concerns associated with the transfer stations that need to be developed in conjunction with the Waste Pickers. Unfortunately none of the transfer stations could be developed yet due to delays in approval from the Municipality regarding property zoning and registering of the sites as required by the Waste Management Act as for Waste Handling Activities.
b) Work is continuing with the Waste Pickers and the Municipality to get the recycling portion of the project of the ground.

7.1.5 Veld and waste fire management

a) Sasol/Natref has purchased and donated a Rapid Intervention Vehicle (RIV) to the Metsimaholo Local Municipality to rapidly respond to veld, house, waste and shack fires in the area. A 6 000 liter support vehicle has also been purchased and received and will be donated to the Municipality to assist with curbing fires in the Zamdela area.
b) Grass cutting equipment, balers, slashers, tractors and bush cutters have also been purchased and received and will also be donated to the Municipality during the second half of 2018. The aim is for the equipment to be used to cut and remove grass to reduce emissions should a veld fire occur.
c) The community in Iraq raised a concern during a public meeting that they will not see the benefit of the grass cutting equipment. These concerns have been conveyed to the Mayor of Metsimaholo and the equipment will be donated to the Municipality after Sasol/Natref is satisfied that the concerns of the Iraq community has been addressed by the Municipality and that they will see the benefit of the equipment.

A large focus of the project during the following financial year is on the integrity, validity and accuracy of data as well as the calculations of the benefits associated with the Offsetting project. Sasol/Natref will also continue to work with all the stakeholders to secure the sustainability of the project.

8 CONCLUSION

The operational units associated with AEL FDDM-MET-2013-23-P2 complies with the AEL requirements.