

CAMDEN POWER STATION MONTHLY EMISSIONS REPORT

Atmospheric Emission License CPS/0012/2019/F03



1 RAW MATERIALS AND PRODUCTS

Raw Materials and Products	Raw Material Type	Units	Maximum Permitted Consumption	Actual Consumption Apr-2022
	Coal	Tons	550 000	409 557,84
	Fuel Oil	Tons	5 000	7 950,34
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Apr-2022
	Energy	GWh	1600	681,14
	Ash	Tons	not specified	93 584
	RE PM	kg/MWh	not specified	0,190

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19,56	22,62
Sulphur Content	%	< 2	0,90
Ash Content	%	25 to 35	22,85

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SO _x	NO _x
Stack 1	100	3500	1100
Stack 2	100	3500	1100
Stack 3	100	3500	1100
Stack 4	100	3500	1100

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency Apr-2022
Unit 1	Fabric Filter Plant (FFP)	99,6%
Unit 2	Fabric Filter Plant (FFP)	99,75%
Unit 3	Fabric Filter Plant (FFP)	99,77%
Unit 4	Fabric Filter Plant (FFP)	99,75%
Unit 5	Fabric Filter Plant (FFP)	99,91%
Unit 6	Fabric Filter Plant (FFP)	99,93%
Unit 7	Fabric Filter Plant (FFP)	99,98%
Unit 8	Fabric Filter Plant (FFP)	99,96%

Note: Abatement plant does not have bypass mode operation, hence plant 100% Utilised.

5 MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO ₂	NO	CO ₂	O ₂
Stack 1	100,0	99,0	100,0	0,0	0,0
Stack 2	96,5	41,7	41,8	0,0	0,0
Stack 3	100,0	100,0	100,0	0,0	0,0
Stack 4	100,0	97,4	97,6	0,0	0,0

Note: NO_x emissions is measured as NO in PPM. Final NO_x value is expressed as total NO₂

6 EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of April-2022

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	24,9	991	469	119 721
2	31,7	1 239	581	151 274
3	23,0	837	606	109 422
4	21,9	718	523	95 745
5	12,7	1 306	842	144 044
6	9,3	1 196	775	131 261
7	2,4	959	507	129 525
8	3,5	977	514	136 038
SUM	129,4	8 221	4 817	1 017 030

Table 6.2: Operating days in compliance to PM AEL Limit - April 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	31	0	0	0	0	39,6
Stack 2	0	0	0	0	0	46,8
Stack 3	31	0	0	0	0	17,0
Stack 4	29	0	0	0	0	4,8
SUM	0	0	0	0	0	

Table 6.3: Operating days in compliance to SOx AEL Limit - April 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
Stack 1	31	0	0	0	0	1 552,8
Stack 2	28	0	0	0	0	1 556,0
Stack 3	31	0	0	0	0	1 752,8
Stack 4	30	0	0	0	0	1 362,9
SUM	120	0	0	0	0	

Table 6.4: Operating days in compliance to NOx AEL Limit - April 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Stack 1	31	0	0	0	0	728,2
Stack 2	4	0	0	24	24	1 133,5
Stack 3	6	0	0	25	25	1 130,8
Stack 4	30	0	0	0	0	713,8
SUM	71	0	0	49	49	

Table 6.5: Legend Description

Condition	Colour	Description
Normal		Emissions below Emission Limit Value (ELV)
Grace		Emissions above the ELV during grace period
Section 30		Emissions above ELV during a NEMA S30 incident
Contravention		Emissions above ELV but outside grace or S30 incident conditions

Figure 1: Camden Stack 1 PM Emissions - April 2022

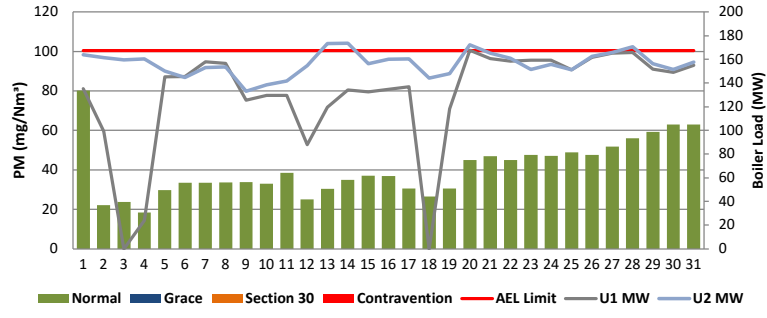


Figure 2: Camden Stack 2 PM Emissions - April 2022

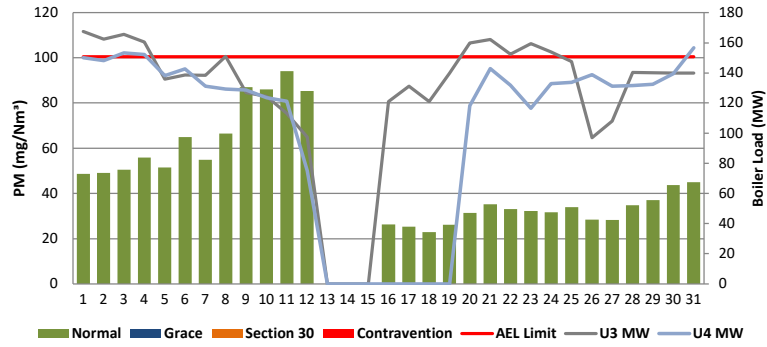


Figure 3: Camden Stack 3 PM Emissions - April 2022

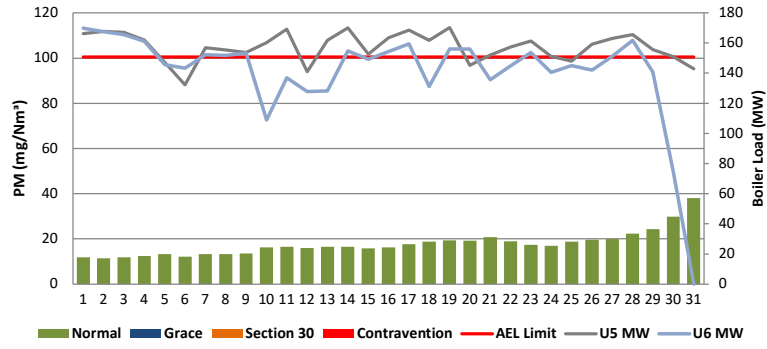


Figure 4: Camden Stack 4 PM Emissions - April 2022

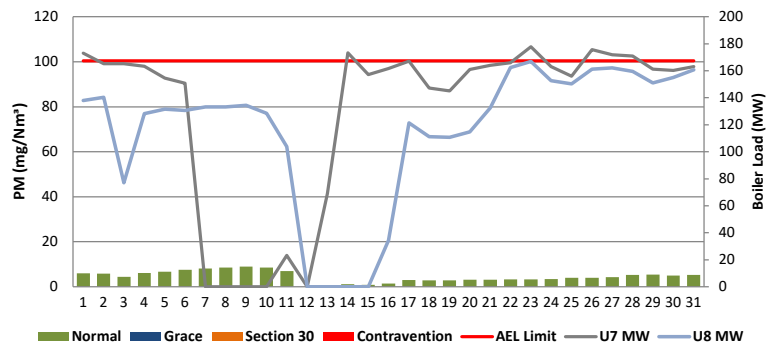


Figure 5: Camden Stack 1 SOx Emissions - April 2022

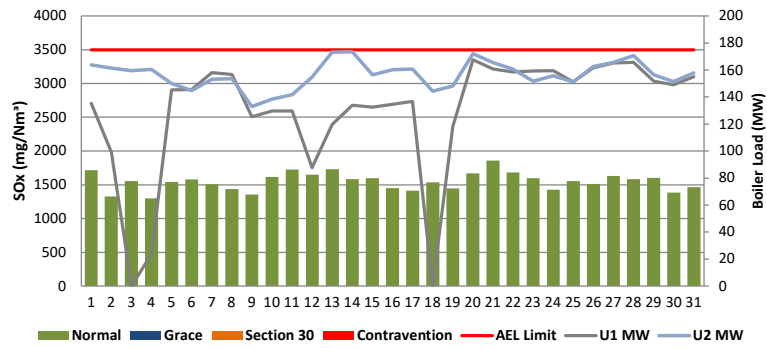


Figure 6: Camden Stack 2 SOx Emissions - April 2022

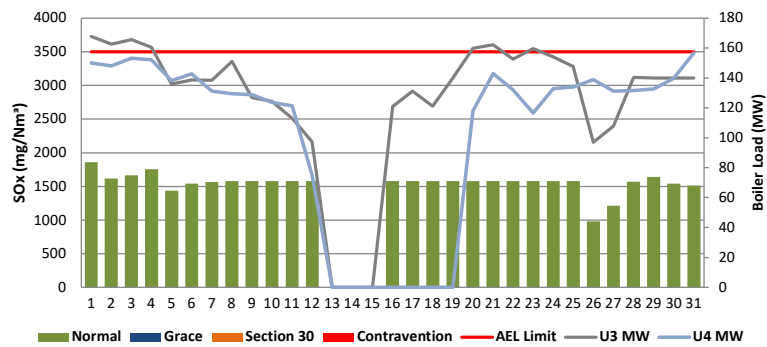


Figure 7: Camden Stack 3 SOx Emissions - April 2022

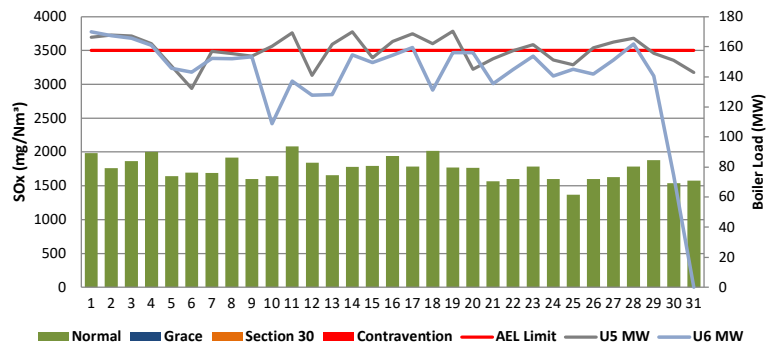


Figure 8: Camden Stack 4 SOx Emissions - April 2022

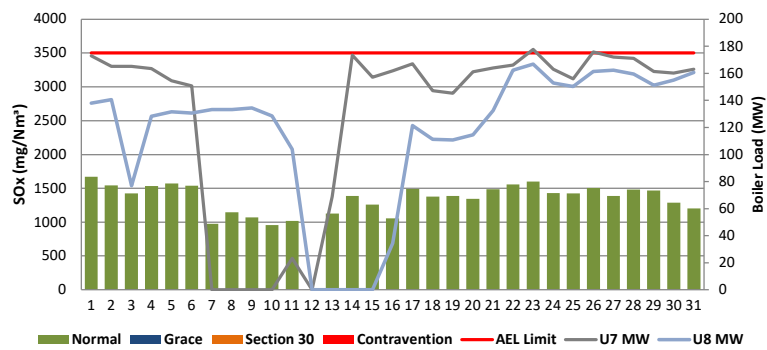


Figure 9: Camden Stack 1 NOx Emissions - April 2022

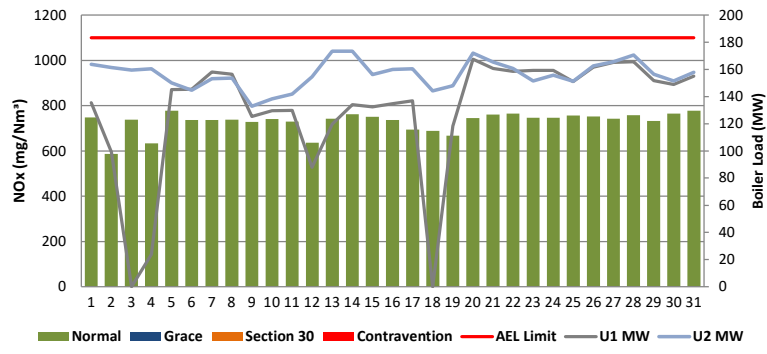


Figure 10: Camden Stack 2 NOx Emissions - April 2022

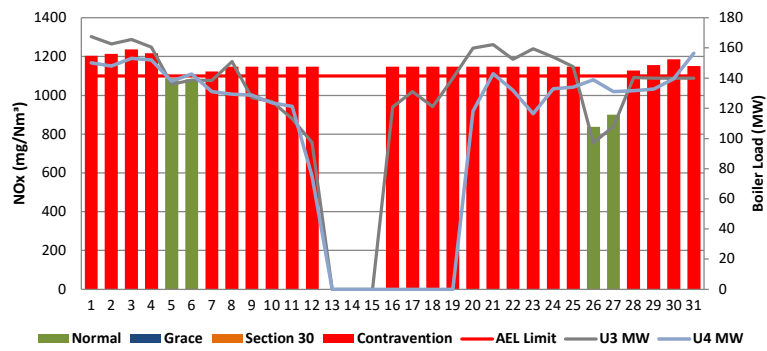


Figure 11: Camden Stack 3 NOx Emissions - April 2022

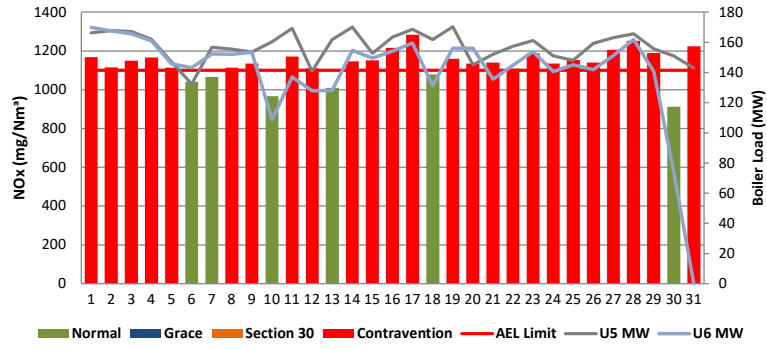
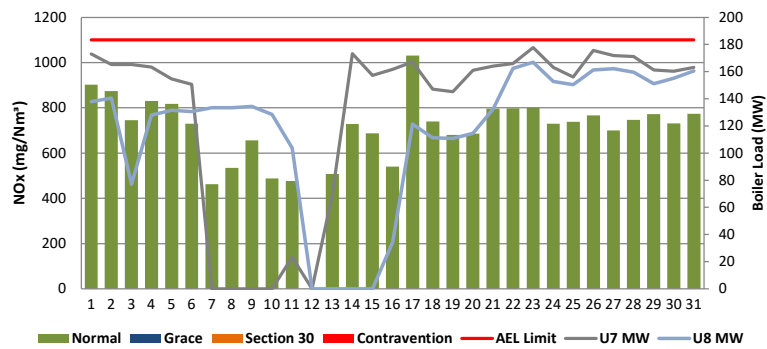


Figure 12: Camden Stack 4 NOx Emissions - April 2022



10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

None

Unit 6:

None

Unit 7:

None

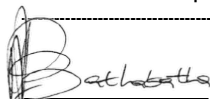
Unit 8:

None

Comments on Use of averages for O2 and CO2 from QAL2 tests as per previous months

For the Month of April the Fuel Consumption was at 7950,34T while the limit is 5000T

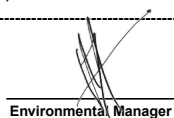
Stack 2 and Stack 3 experienced high Nox reading for the month of April, Camden is still investigating and will provide feedback as soon as the investigation is finalised.



Engineering Manager

24/05/2022

Date



Environmental Manager

24/05/2022

Date

Compiled by: Environmental Department & verified by Boiler Eng

Env. Practitioner & System Eng

For: Department of Environment, Forestry & Fisheries

Chief Air Pollution Control Officer

Copies: Eskom Environmental Management

D Herbst
B Mccourt

Gx Compliance Management
Gx Asset Management

R Rampiar
E Patel

Camden Power Station:

Engineering Manager
Operating Manager
Maintenance Manager
Production Managers
Boiler Engineering Manager
System Engineer
Environmental Manager
Environmental Officer
P&T and Process Engineering Manager