

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 Aug-2022
	Coal	Tons	550 000	426 297.00
	Fuel Oil	Tons	5 000	5 681.93
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Aug-2022
	Energy	GWh	1600	686.96
	Ash	Tons	not specified	93 231
	RE PM	kg/MWh	not specified	0.358

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	23.07
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	21.87

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 Aug-2022
Unit 1	Fabric Filter Plant (FFP)	99.5%
Unit 2	Fabric Filter Plant (FFP)	99.33%
Unit 3	Fabric Filter Plant (FFP)	99.91%
Unit 4	Fabric Filter Plant (FFP)	99.33%
Unit 5	Fabric Filter Plant (FFP)	99.61%
Unit 6	Fabric Filter Plant (FFP)	99.67%
Unit 7	Fabric Filter Plant (FFP)	99.96%
Unit 8	Fabric Filter Plant (FFP)	99.95%

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	99.3	100.0	0.0	0.0
Stack 2	100.0	98.5	99.5	0.0	0.0
Stack 3	100.0	96.0	98.8	0.0	0.0
Stack 4	100.0	95.7	96.0	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 August-2022

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	42.0	961	469	112 162
2	60.2	1 258	608	153 360
3	11.3	299	183	35 481
4	51.3	1 254	730	155 689
5	42.3	1 180	689	147 096
6	27.3	812	462	92 106
7	5.6	1 436	844	173 461
8	5.8	1 420	835	171 517
SUM	245.8	8 619	4 820	1 040 872

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)
Stack 1	30	1	0	0	1	74.0
Stack 2	31	0	0	0	0	67.9
Stack 3	31	0	0	0	0	54.3
Stack 4	31	0	0	0	0	6.5
SUM	123	1	0	0	1	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm ³)
Stack 1	31	0	0	0	0	1 539.4
Stack 2	31	0	0	0	0	1 644.6
Stack 3	31	0	0	0	0	1 526.1
Stack 4	31	0	0	0	0	1 599.1
SUM	124	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm ³)
Stack 1	31	0	0	0	0	744.3
Stack 2	29	0	0	2	2	960.0
Stack 3	30	0	0	1	1	883.1
Stack 4	31	0	0	0	0	940.1
SUM	121	0	0	3	3	

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 - August 2022

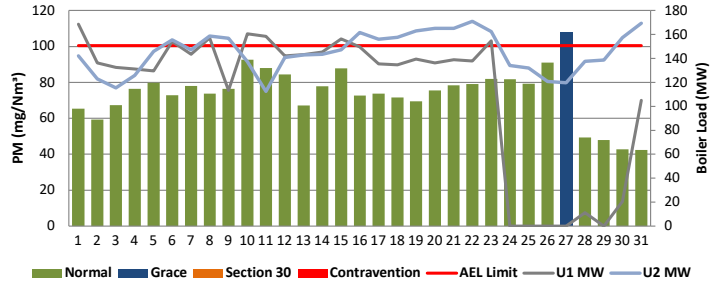


Figure 2: Camden Stack 2 PM Emissions - August 2022

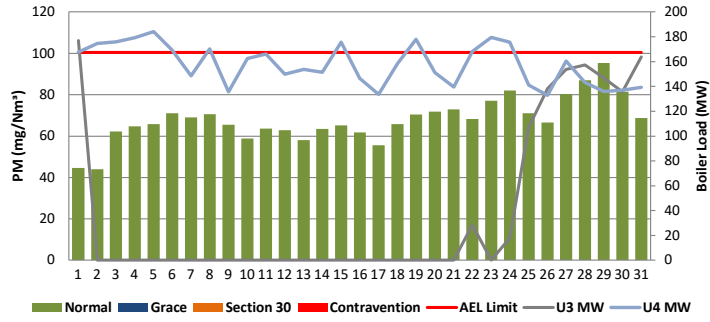


Figure 3: Camden Stack 3 PM Emissions - August 2022

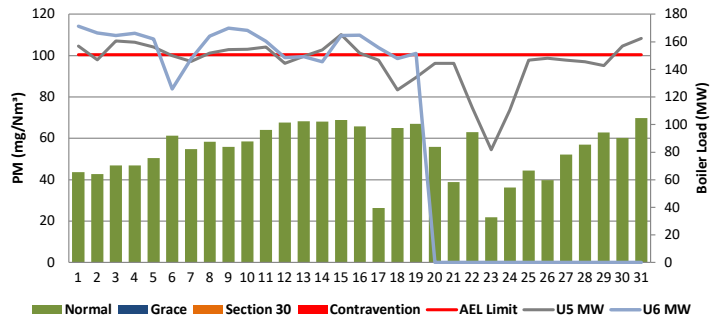


Figure 4: Camden Stack 4 PM Emissions - August 2022

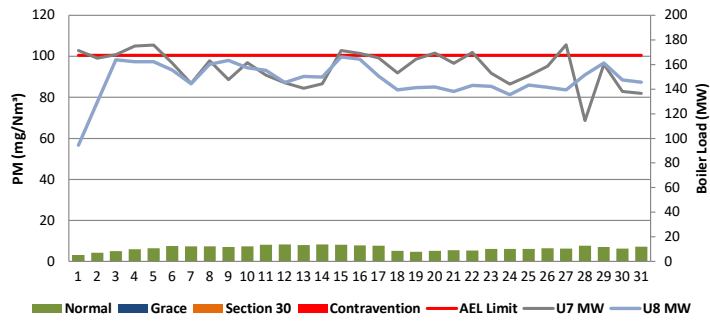


Figure 5: Camden Stack 1 SOx Emissions - August 2022

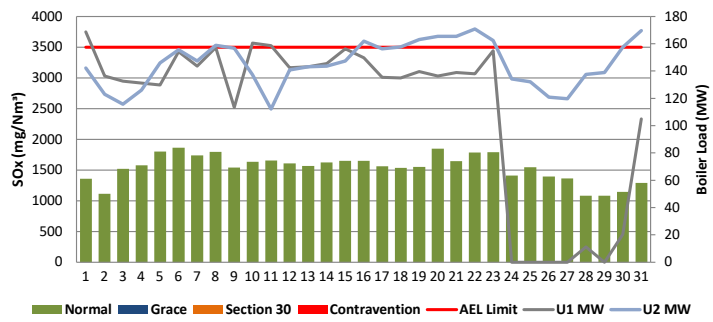


Figure 6: Camden Stack 2 SOx Emissions - August 2022

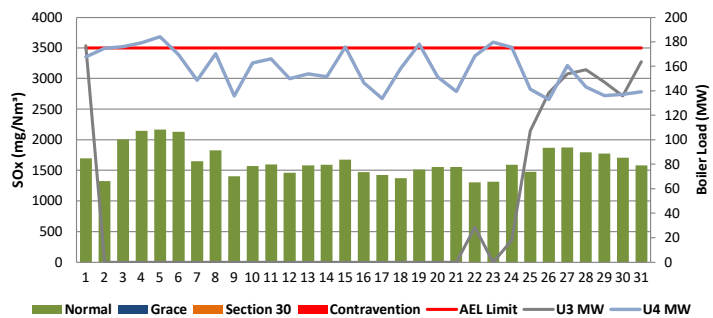


Figure 7: Camden Stack 3 SOx Emissions - August 2022

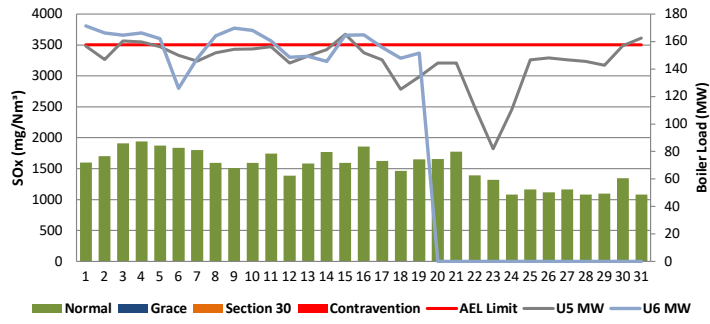


Figure 8: Camden Stack 4 SOx Emissions - August 2022

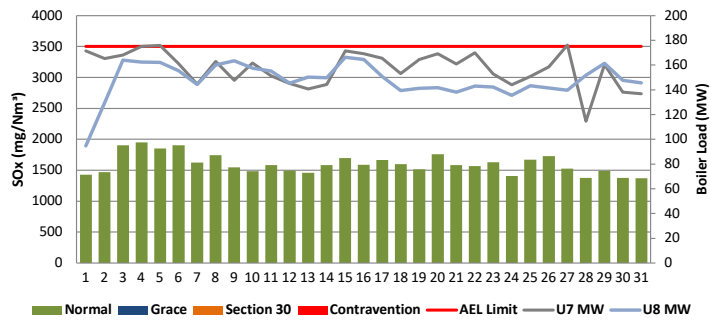


Figure 9: Camden Stack 1 NOx Emissions - August 2022

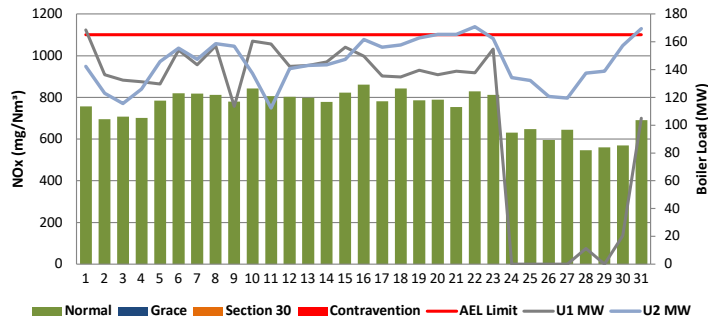


Figure 10: Camden Stack 2 NOx Emissions - August 2022

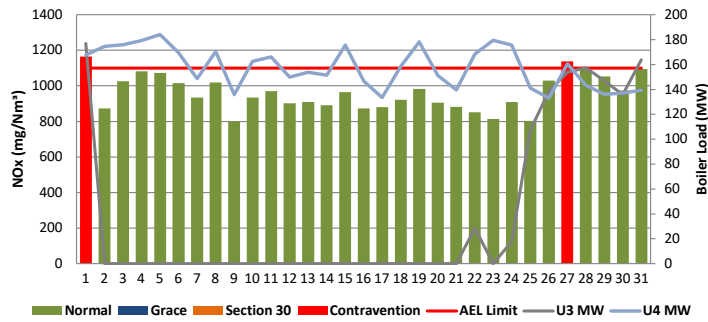


Figure 11: Camden Stack 3 NOx Emissions - August 2022

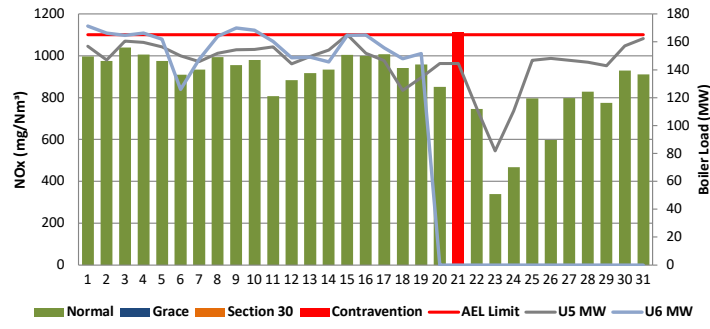
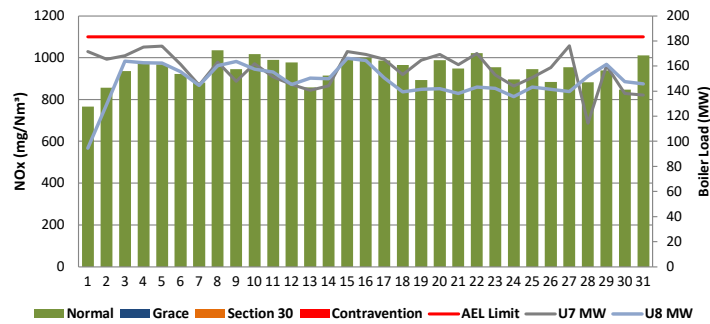


Figure 12: Camden Stack 4 NOx Emissions - August 2022



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

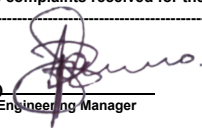
Comments on Use of averages for O2 and CO2 from QAL2 tests as per previous months

For the Month of August 2022 the Fuel Consumption was at 5681,93T while the limit is 5000T

Stack 2 and Stack 3 experienced high Nox reading for the month of August 2022, Camden is still investigating and will provide feedback as soon as the investigation is finalised.

QAL2 test are in progress on Stack 1 to 4

No complaints received for the month of August 2022

p.p. 
Engineering Manager

22/09/2022
Date


Environmental Manager

22/09/2022
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