

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 Nov-2022
	Coal	Tons	550 000	290 651.00
	Fuel Oil	Tons	5 000	4 050.94
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Nov-2022
	Energy	GWh	1600	608.81
	Ash	Tons	not specified	63 565
	RE PM	kg/MWh	not specified	0.309

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.89
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	21.87

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SO ₂	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 Nov-2022
Unit 1	Fabric Filter Plant (FFP)	99.3%
Unit 2	Fabric Filter Plant (FFP)	99.51%
Unit 3	Fabric Filter Plant (FFP)	99.58%
Unit 4	Fabric Filter Plant (FFP)	99.59%
Unit 5	Fabric Filter Plant (FFP)	99.81%
Unit 6	Fabric Filter Plant (FFP)	99.83%
Unit 7	Fabric Filter Plant (FFP)	100.00%
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	100.0	100.0	0.0	0.0
Stack 2	100.0	99.9	99.9	0.0	0.0
Stack 3	100.0	100.0	100.0	0.0	0.0
Stack 4	100.0	100.0	100.0	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 November-2022

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
1	50.0	1 318	593
2	36.3	1 106	485
3	29.9	900	559
4	38.4	1 172	712
5	16.9	1 072	640
6	13.4	955	566
7	0.0	19	10
8	3.3	995	547
SUM	188.0	7 536	4 113

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	30	0	0	0	0	65.0
Stack 2	28	1	0	0	1	54.9
Stack 3	27	0	0	0	0	27.4
Stack 4	27	0	0	0	0	4.4
SUM	112	1	0	0	1	

Table 6.3: Operating days in compliance to SO₂ AEL Limit - November 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm³)
Stack 1	30	0	0	0	0	1 715.0
Stack 2	30	0	0	0	0	1 634.2
Stack 3	28	0	0	0	0	1 554.2
Stack 4	29	0	0	0	0	1 259.2
SUM	117	0	0	0	0	

Table 6.4: Operating days in compliance to NO_x AEL Limit - November 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm³)
Stack 1	30	0	0	0	0	771.0
Stack 2	17	0	0	13	13	1 001.6
Stack 3	28	0	0	0	0	924.7
Stack 4	29	0	0	0	0	689.1
SUM	104	0	0	13	13	

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 - November 2022

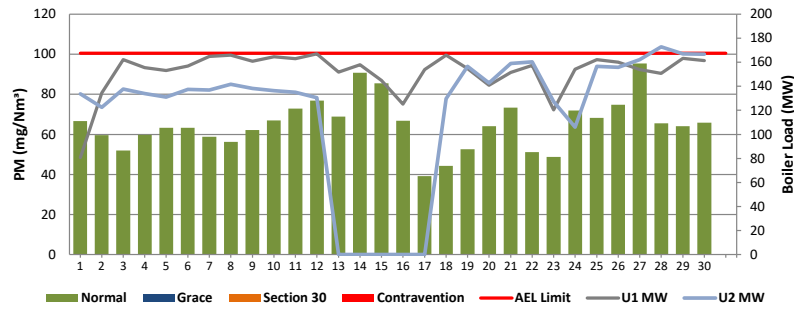


Figure 2: Camden Stack 2 PM Emissions - November 2022

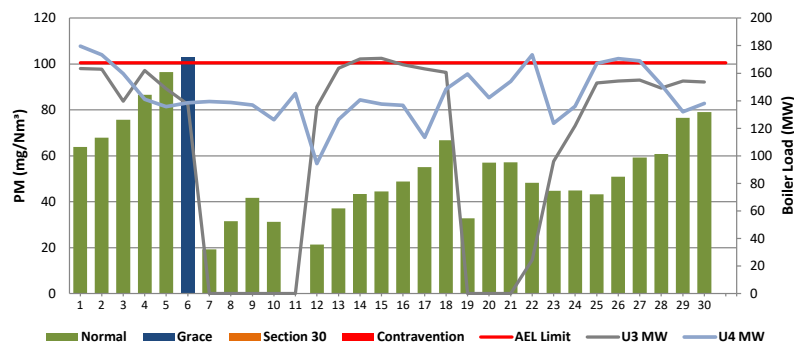


Figure 3: Camden Stack 3 PM Emissions - November 2022

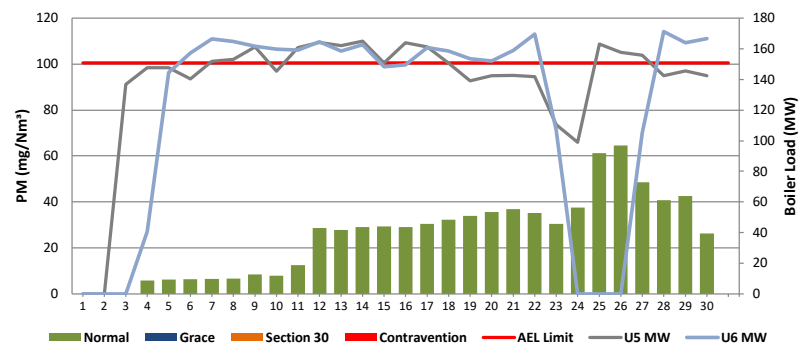


Figure 4: Camden Stack 4 PM Emissions - November 2022

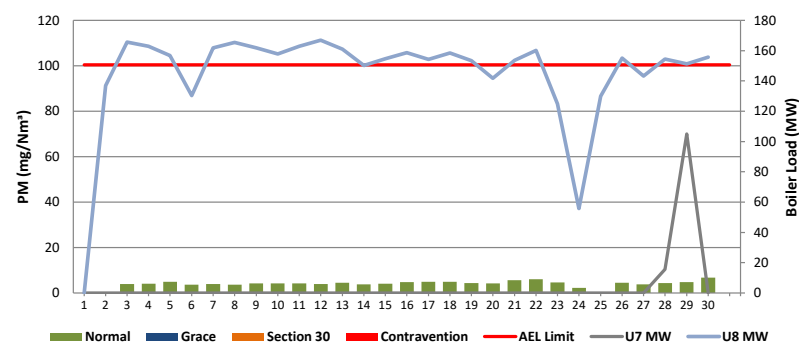


Figure 5: Camden Stack 1 SO₂ Emissions - November 2022

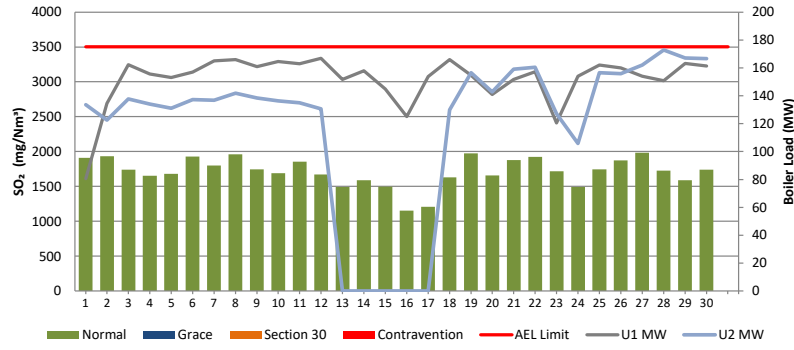


Figure 6: Camden Stack 2 SO₂ Emissions - November 2022

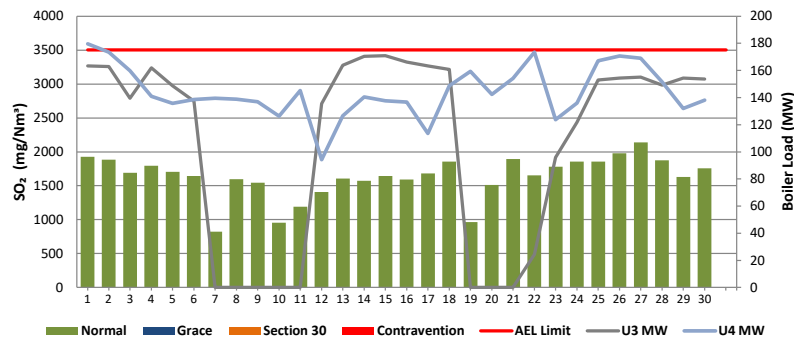


Figure 7: Camden Stack 3 SO₂ Emissions - November 2022

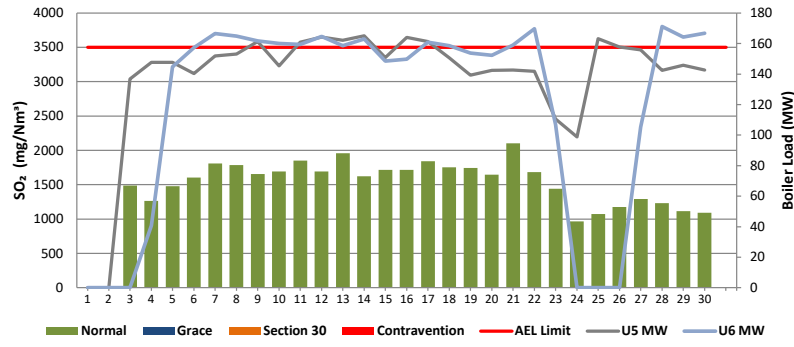


Figure 8: Camden Stack 4 SO₂ Emissions - November 2022

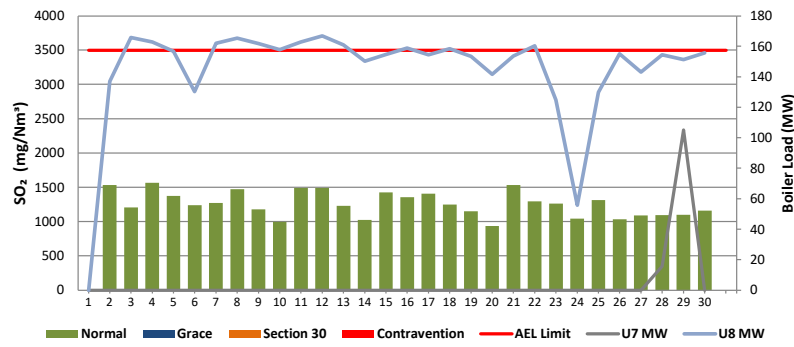


Figure 9: Camden Stack 1 NOx Emissions - November 2022

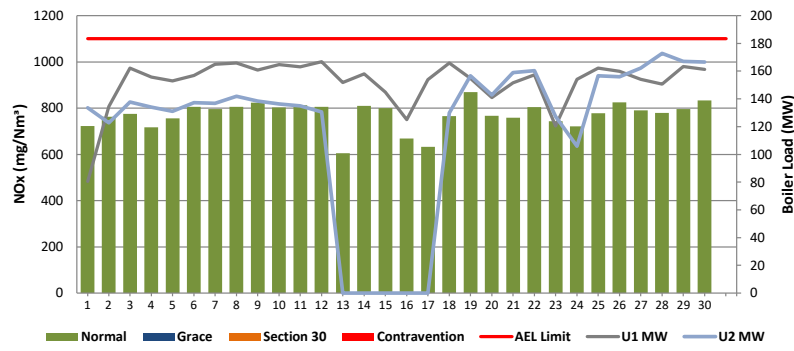


Figure 10: Camden Stack 2 NOx Emissions - November 2022

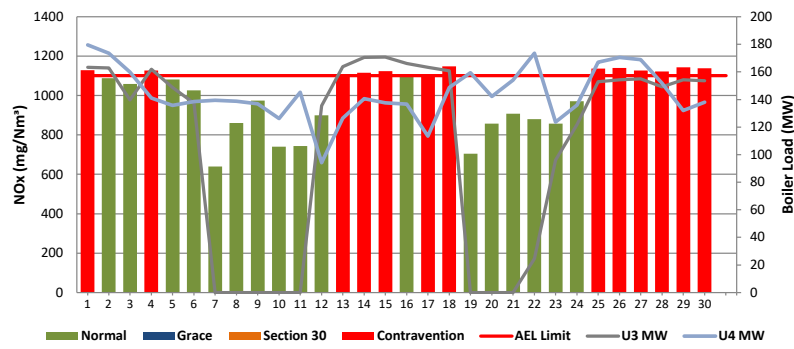


Figure 11: Camden Stack 3 NOx Emissions - November 2022

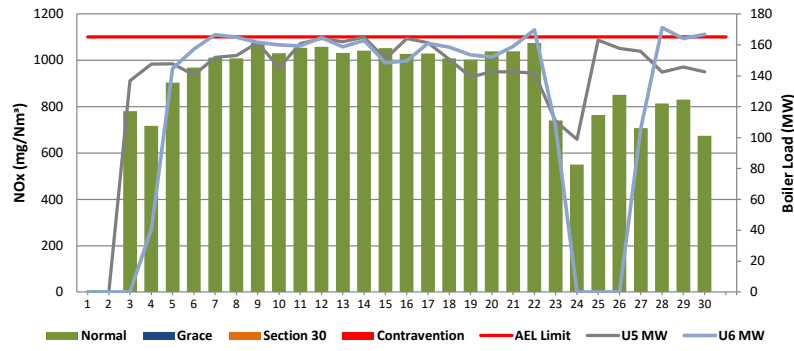
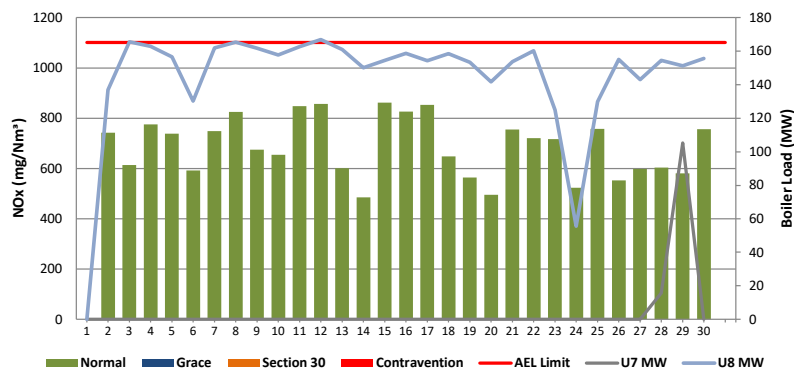


Figure 12: Camden Stack 4 NOx Emissions - November 2022



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

Stack 2 PM had one exceedance above the limit on the 6th, classified as Grace

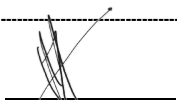
Stack 2 experienced high NOx reading for the month of November, Camden is still investigating and will provide feedback as soon as the investigation is finalised.



Engineering Manager

15/12/2022

Date



Environmental Manager

15/12/2022

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 Ramplar
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