

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 May-2023
	Coal	Tons	550 000	306 928.00
	Fuel Oil	Tons	5 000	4 200.51
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production May-2023
	Energy	GWh	1600	634.26
	Ash	Tons	not specified	67 033
	RE PM	kg/MWh	not specified	0.424

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.63
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	21.84

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 May-2023
Unit 1	Fabric Filter Plant (FFP)	99.995%
Unit 2	Fabric Filter Plant (FFP)	99.995%
Unit 3	Fabric Filter Plant (FFP)	99.994%
Unit 4	Fabric Filter Plant (FFP)	99.994%
Unit 5	Fabric Filter Plant (FFP)	99.995%
Unit 6	Fabric Filter Plant (FFP)	99.995%
Unit 7	Fabric Filter Plant (FFP)	100.000%
Unit 8	Fabric Filter Plant (FFP)	99.999%

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	97.6	97.7	0.0	0.0
Stack 2	100.0	87.5	87.5	0.0	0.0
Stack 3	100.0	87.2	87.4	0.0	0.0
Stack 4	100.0	86.2	85.8	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 May-2023

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
1	20.77	516	241
2	34.31	895	398
3	54.12	1 006	628
4	64.94	1 165	720
5	46.78	1 095	611
6	38.55	850	481
7	2.73	630	357
8	7.03	650	363
SUM	269.22	6 807	3 799

Table 6.2: Operating days in compliance to PM AEL Limit - May 2023

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	27	0	0	0	0	60.0
Stack 2	28	3	0	0	3	86.4
Stack 3	28	2	1	0	3	69.3
Stack 4	28	0	0	0	0	12.2
SUM	111	5	1	0	6	

Table 6.3: Operating days in compliance to SO₂ AEL Limit - May 2023

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm³)
Stack 1	28	0	0	0	0	1 456.9
Stack 2	31	0	0	0	0	1 510.4
Stack 3	31	0	0	0	0	1 477.2
Stack 4	28	0	0	0	0	1 011.9
SUM	118	0	0	0	0	

Table 6.4: Operating days in compliance to NO_x AEL Limit - May 2023

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm³)
Stack 1	28	0	0	0	0	654.3
Stack 2	31	0	0	0	0	927.7
Stack 3	31	0	0	0	0	797.9
Stack 4	28	0	0	0	0	568.6
SUM	118	0	0	0	0	

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 - May 2023

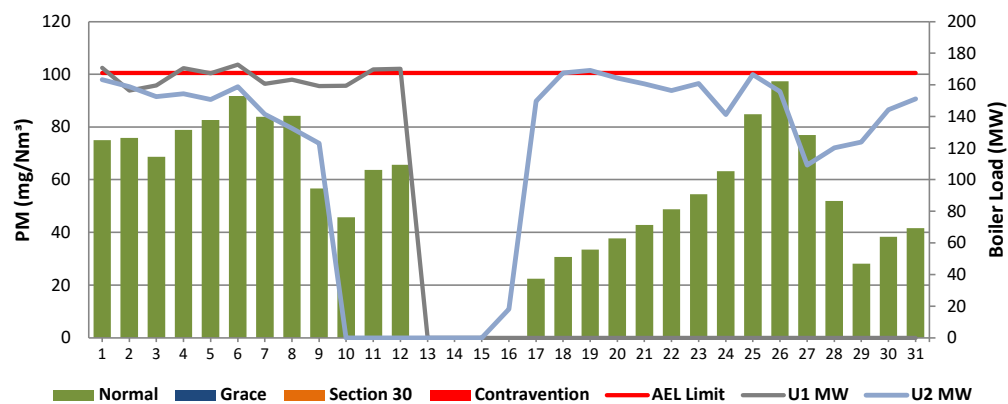


Figure 2: Camden Stack 2 PM Emissions - May 2023

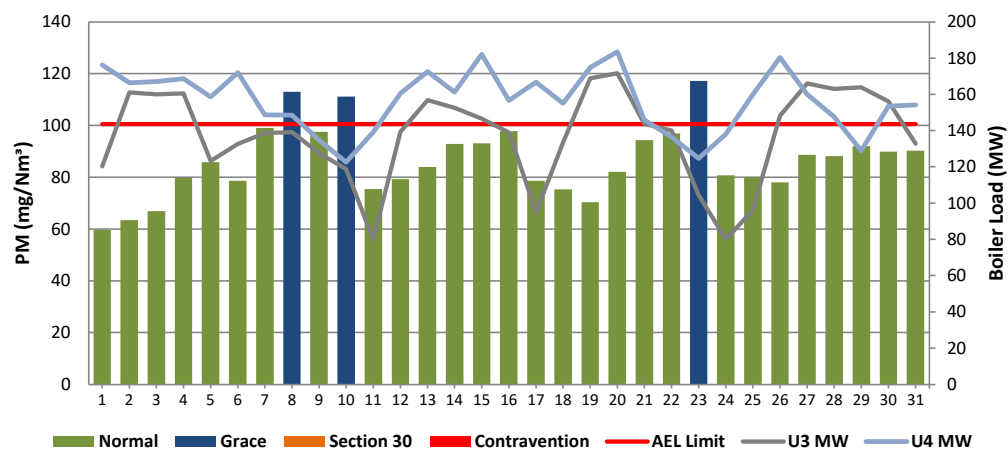


Figure 3: Camden Stack 3 PM Emissions - May 2023

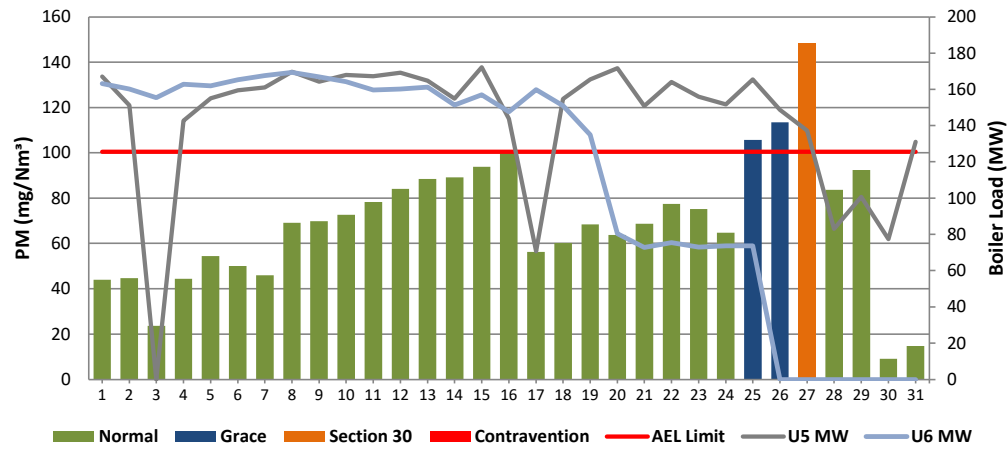


Figure 4: Camden Stack 4 PM Emissions - May 2023

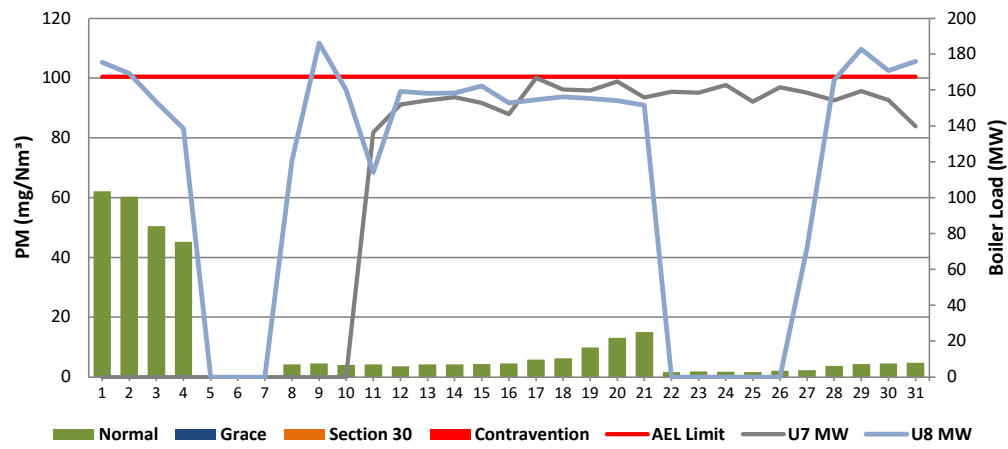


Figure 5: Camden Stack 1 SO₂ Emissions - May 2023

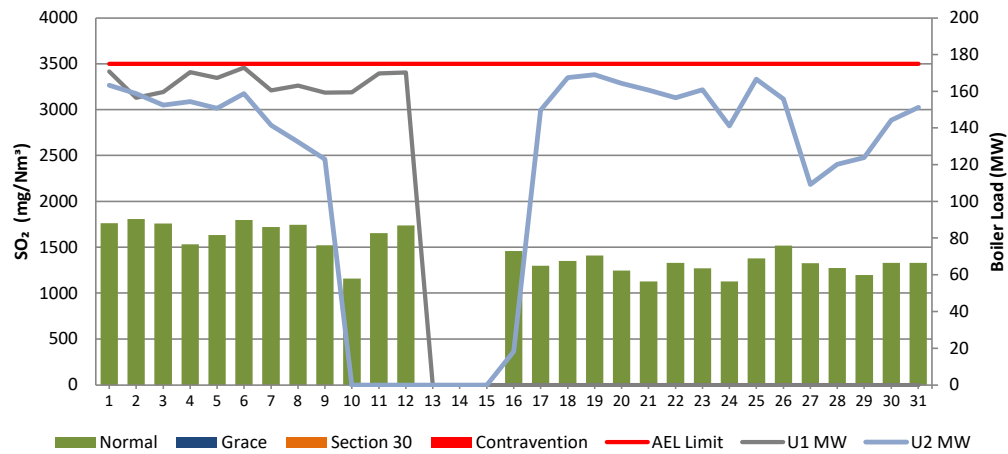


Figure 6: Camden Stack 2 SO₂ Emissions - May 2023

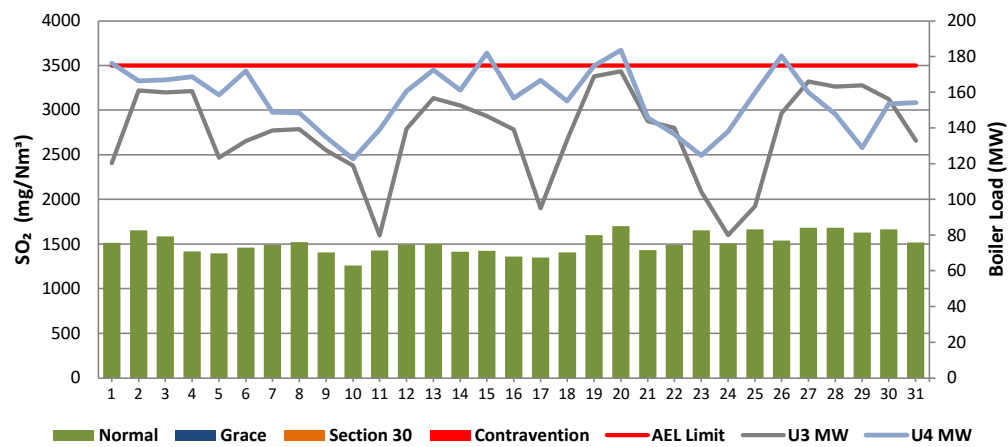


Figure 7: Camden Stack 3 SO₂ Emissions - May 2023

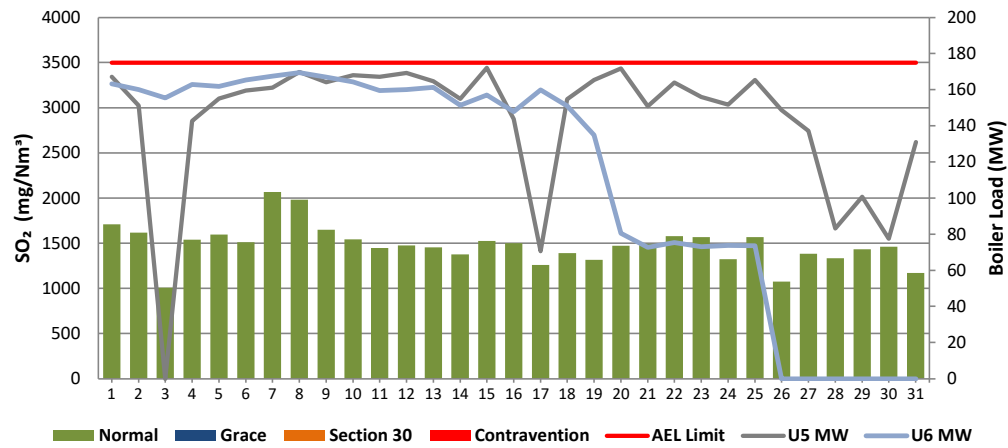


Figure 8: Camden Stack 4 SO₂ Emissions - May 2023

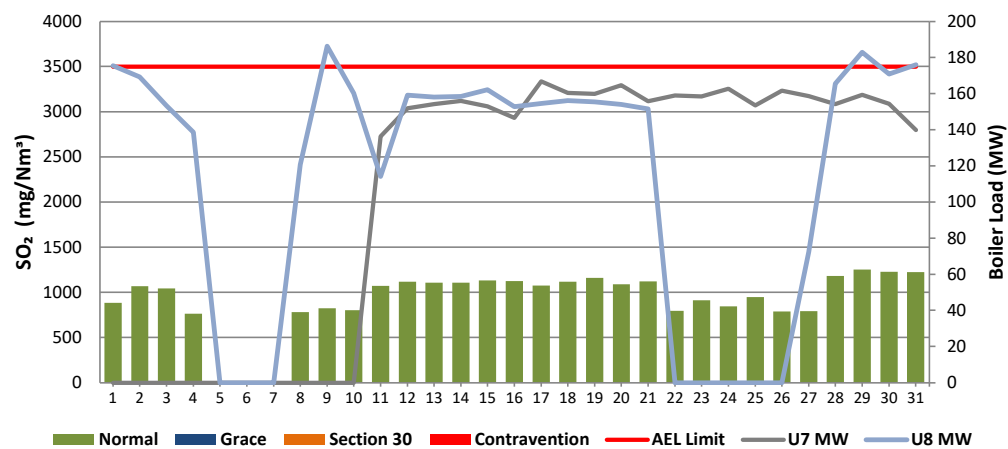


Figure 9: Camden Stack 1 NOx Emissions - May 2023

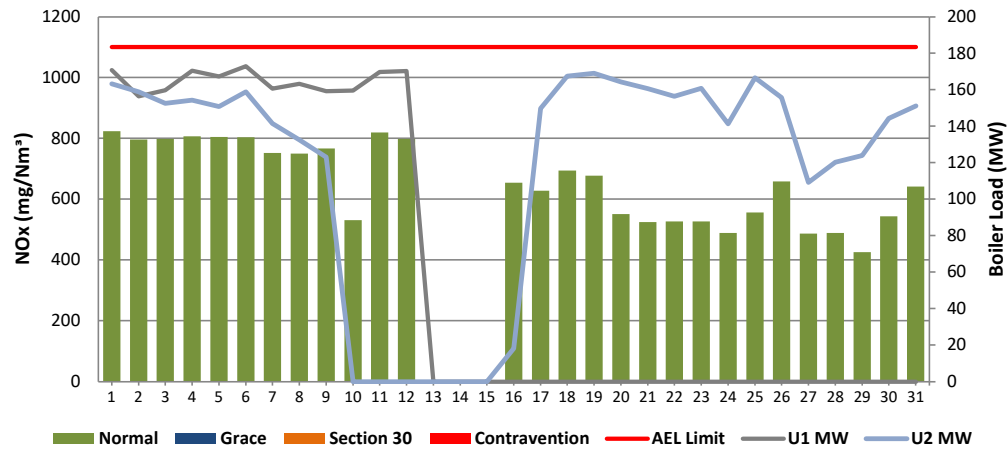


Figure 10: Camden Stack 2 NOx Emissions - May 2023

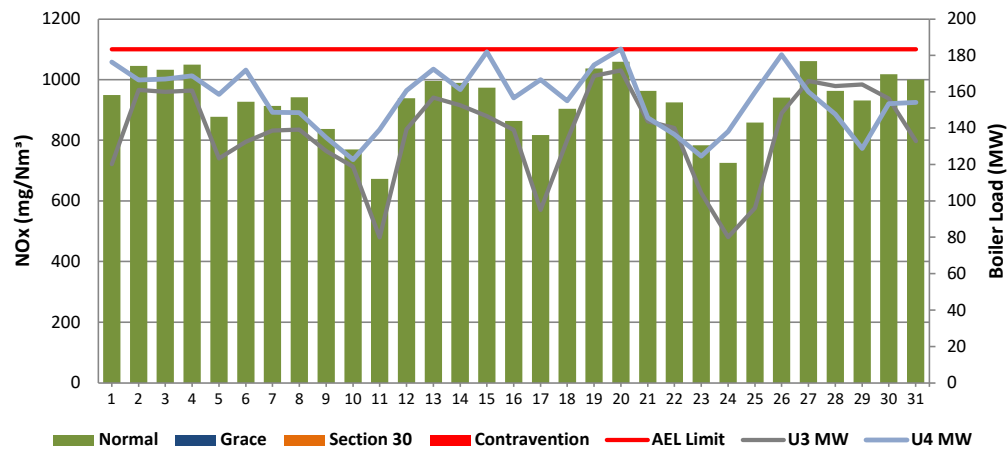


Figure 11: Camden Stack 3 NOx Emissions - May 2023

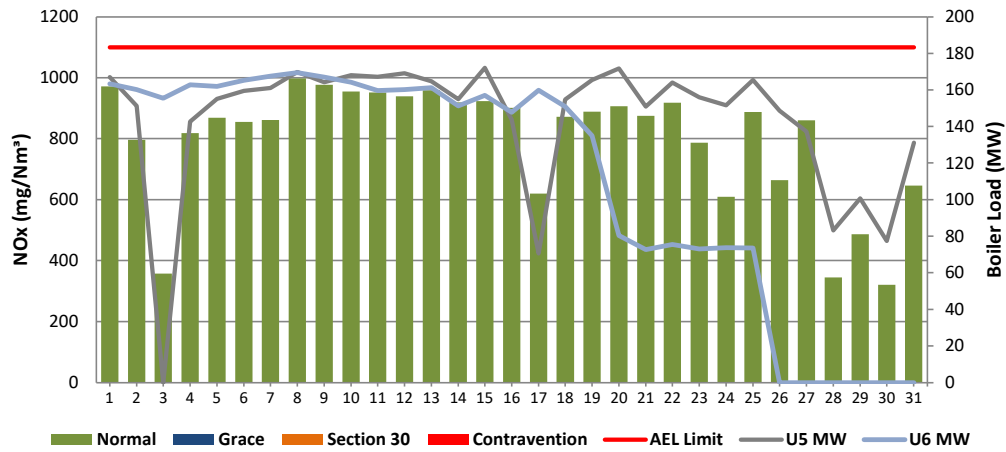
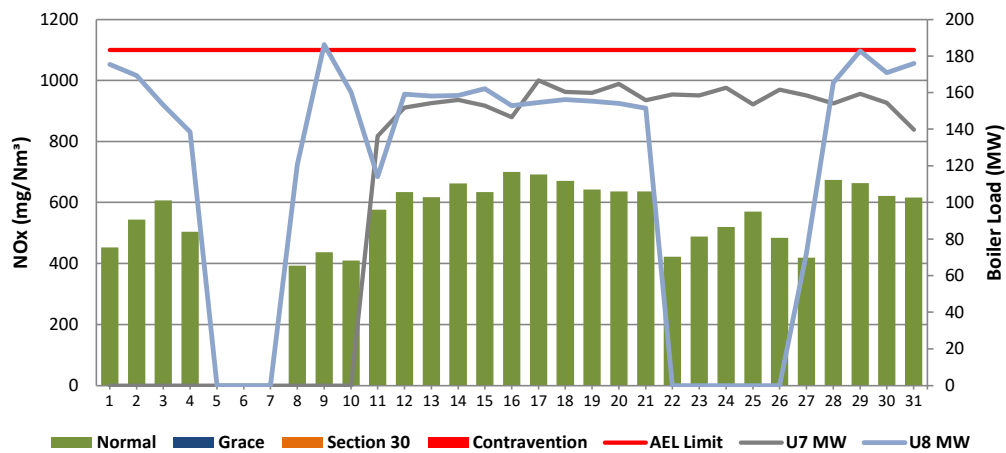


Figure 12: Camden Stack 4 NOx Emissions - May 2023



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 3 Exceeded for 3 consecutive days, 2 days are Grace and 1 day is a non-compliance.


p.p.
Engineering Manager

15/06/2023
Date

p.p.

Environmental Manager

19/06/2023
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