

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 Mar-2023
	Coal	Tons	550 000	364 269.81
	Fuel Oil	Tons	5 000	3 834.06
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Mar-2023
	Energy	GWh	1600	752.81
	Ash	Tons	not specified	80 904
	RE PM	kg/MWh	not specified	0.319

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.70
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	22.21

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 Mar-2023
Unit 1	Fabric Filter Plant (FFP)	99.995%
Unit 2	Fabric Filter Plant (FFP)	99.996%
Unit 3	Fabric Filter Plant (FFP)	99.996%
Unit 4	Fabric Filter Plant (FFP)	99.996%
Unit 5	Fabric Filter Plant (FFP)	99.995%
Unit 6	Fabric Filter Plant (FFP)	99.997%
Unit 7	Fabric Filter Plant (FFP)	99.999%
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	99.1	99.7	0.0	0.0
Stack 2	100.0	97.8	100.0	0.0	0.0
Stack 3	100.0	99.7	98.5	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 March-2023

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	PM (tons)
1	39.55	1 247	561	15.67
2	36.45	1 062	496	15.09
3	40.10	970	610	27.80
4	38.73	989	612	34.91
5	38.49	901	462	17.85
6	31.68	1 053	506	4.47
7	7.42	1 188	598	0.90
8	7.41	1 191	599	0.38
SUM	239.84	8 599	4 443	117.07

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	31	0	0	0	0	53.5
Stack 2	29	0	0	0	0	62.6
Stack 3	31	0	0	0	0	51.9
Stack 4	31	0	0	0	0	8.5
SUM	122	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm³)
Stack 1	31	0	0	0	0	1 585.1
Stack 2	31	0	0	0	0	1 490.0
Stack 3	31	0	0	0	0	1 470.8
Stack 4	31	0	0	0	0	1 340.8
SUM	124	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm³)
Stack 1	31	0	0	0	0	713.6
Stack 2	30	1	0	0	1	928.1
Stack 3	31	0	0	0	0	709.7
Stack 4	31	0	0	0	0	674.3
SUM	123	1	0	0	1	

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 - March 2023

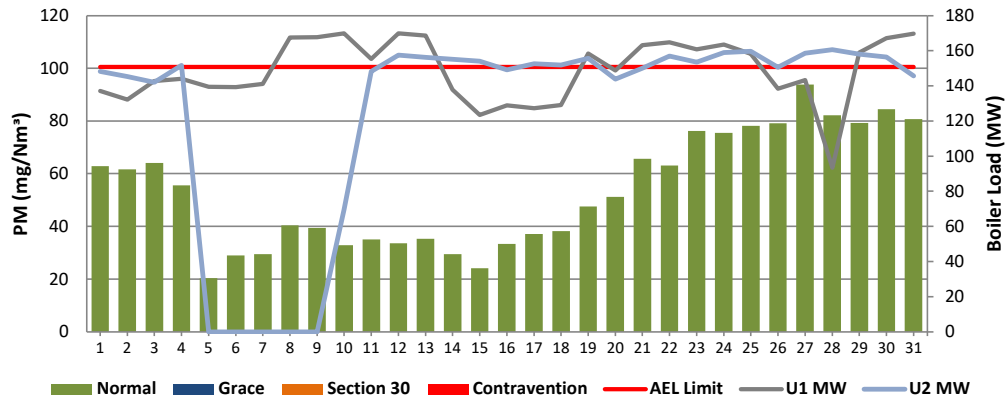


Figure 2: Camden Stack 2 PM Emissions - March 2023

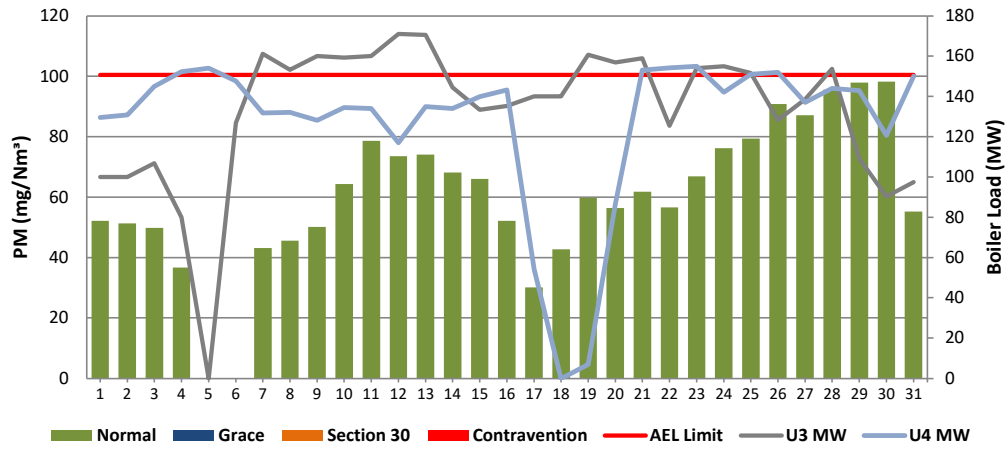


Figure 3: Camden Stack 3 PM Emissions - March 2023

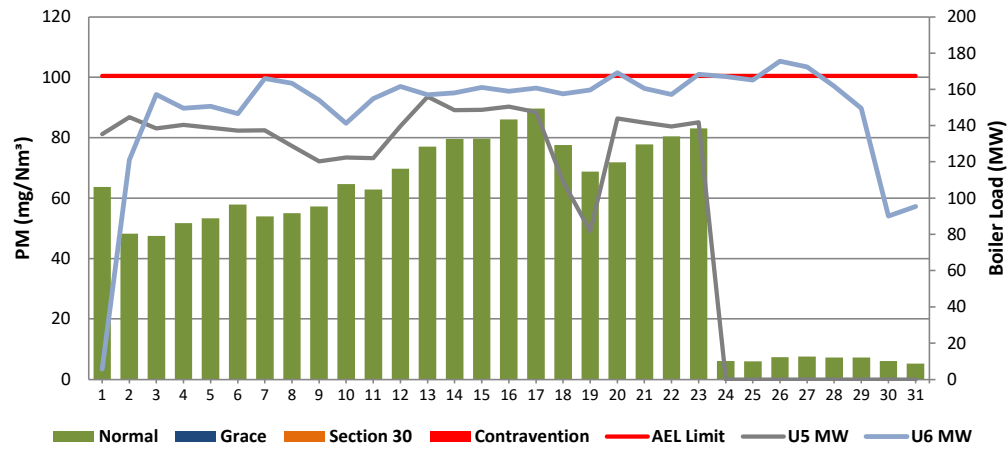


Figure 4: Camden Stack 4 PM Emissions - March 2023

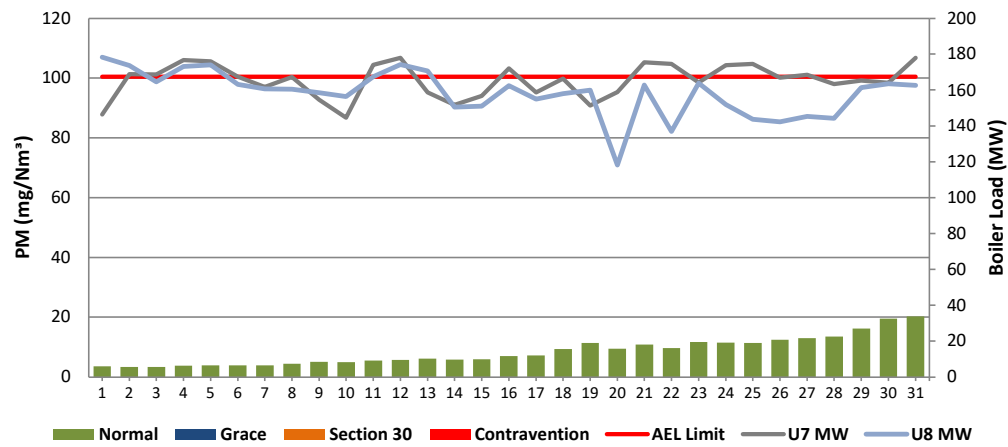


Figure 5: Camden Stack 1 SO₂ Emissions - March 2023

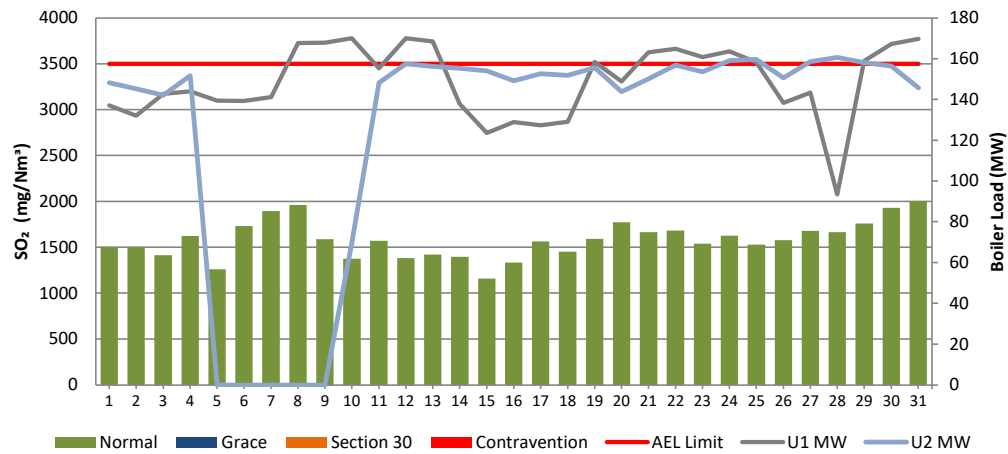


Figure 6: Camden Stack 2 SO₂ Emissions - March 2023

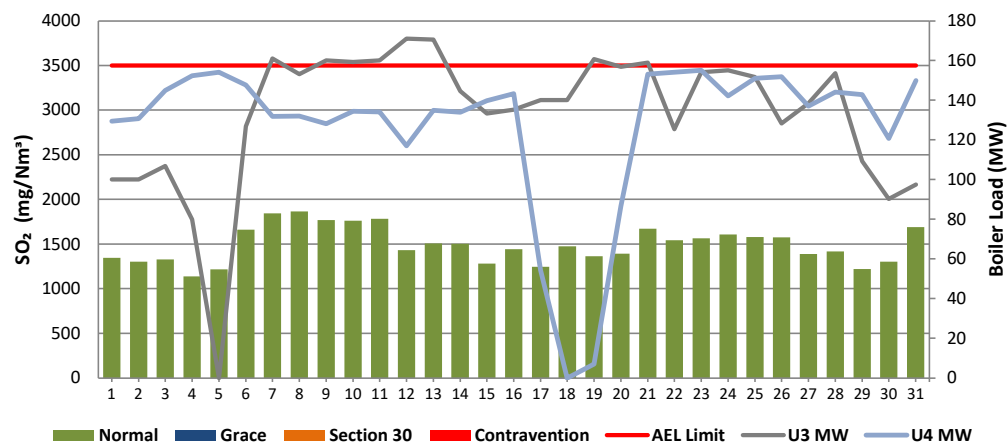


Figure 7: Camden Stack 3 SO₂ Emissions - March 2023

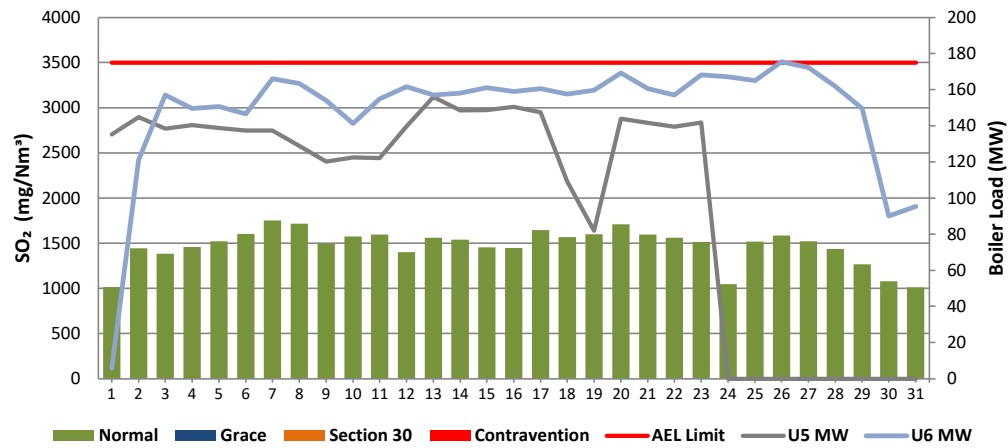


Figure 8: Camden Stack 4 SO₂ Emissions - March 2023

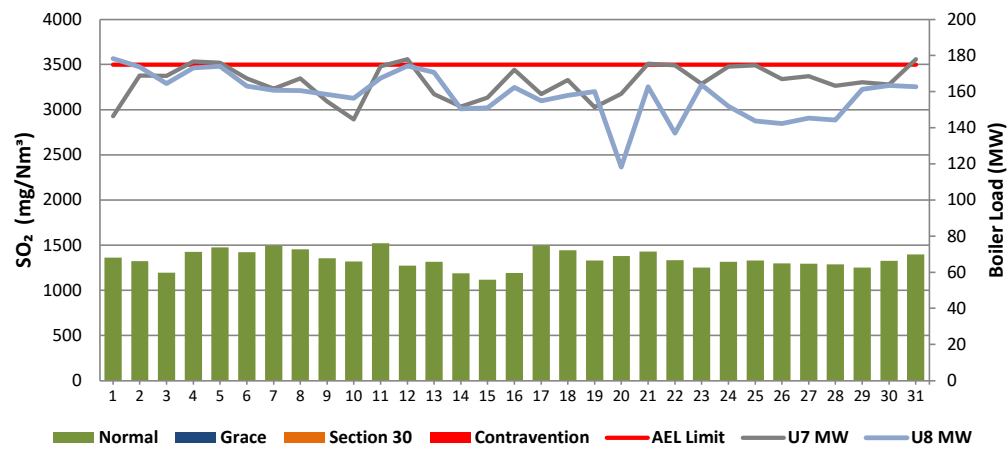


Figure 9: Camden Stack 1 NOx Emissions - March 2023

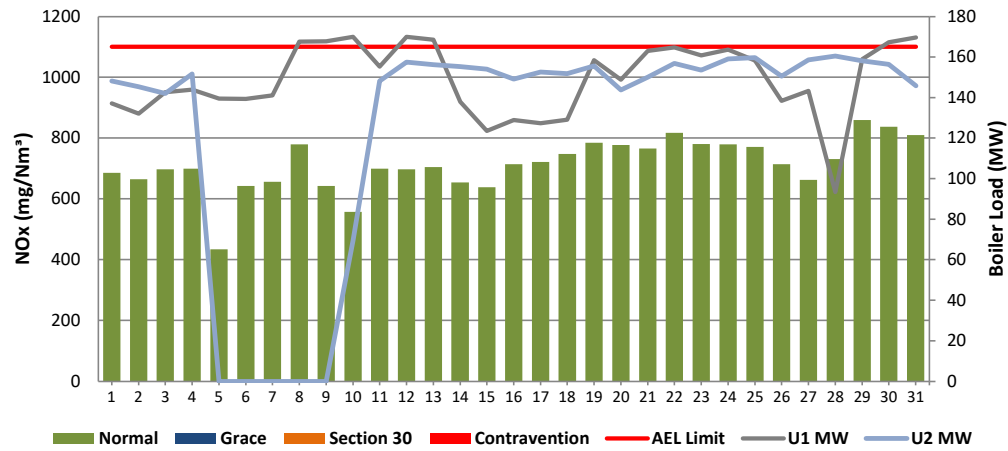


Figure 10: Camden Stack 2 NOx Emissions - March 2023

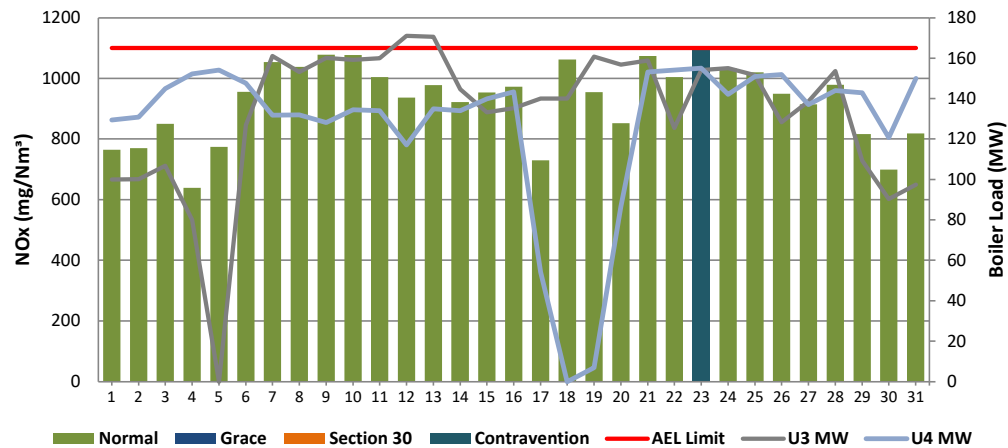


Figure 11: Camden Stack 3 NOx Emissions - March 2023

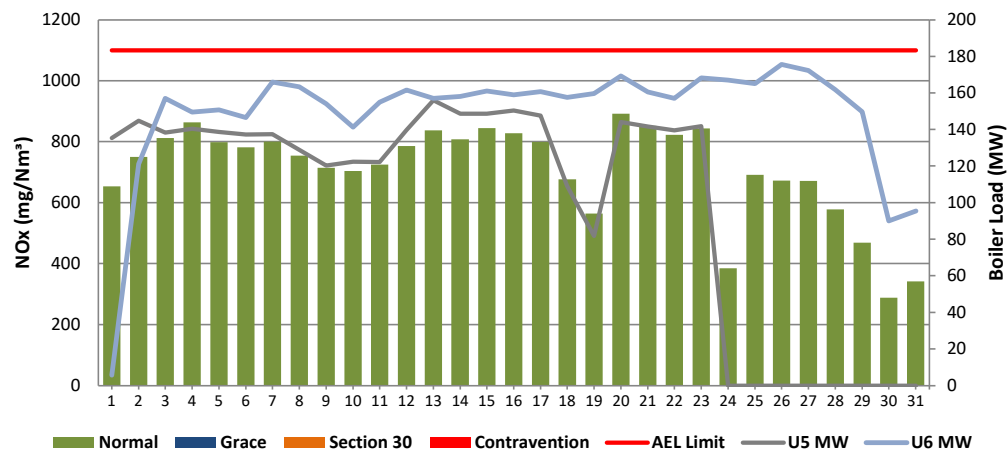
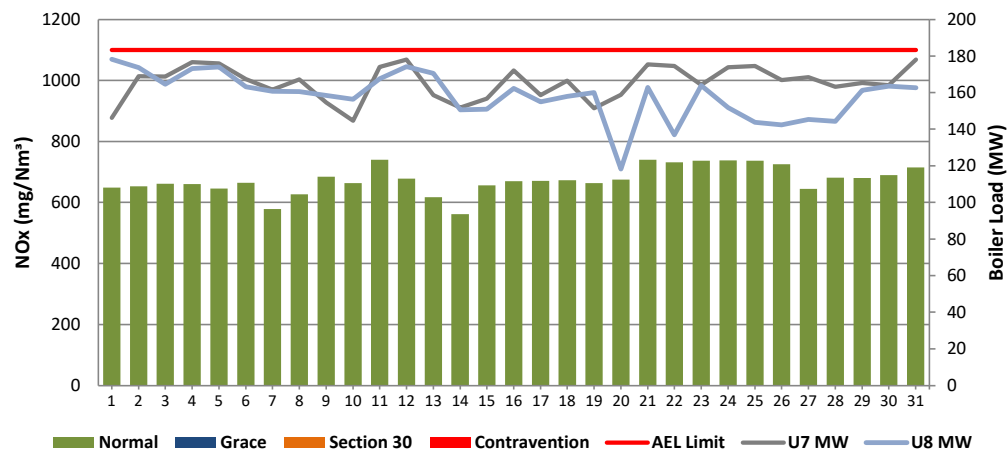


Figure 12: Camden Stack 4 NOx Emissions - March 2023



10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

None

Unit 6:

None

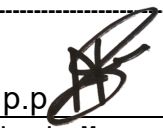
Unit 7:

None

Unit 8:

None

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

 p.p. Engineering Manager	<u>20/04/2023</u> Date	 Environmental Manager	<u>21/04/2023</u> Date
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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