

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 Jul-2023
	Coal	Tons	550 000	401 323.90
	Fuel Oil	Tons	5 000	4 522.96
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Jul-2023
	Energy	GWh	1600	718.52
	Ash	Tons	not specified	89 375
	RE PM	kg/MWh	not specified	0.381

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.79
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	22.27

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 Jul-2023
Unit 1	Fabric Filter Plant (FFP)	99.993%
Unit 2	Fabric Filter Plant (FFP)	99.995%
Unit 3	Fabric Filter Plant (FFP)	99.996%
Unit 4	Fabric Filter Plant (FFP)	99.996%
Unit 5	Fabric Filter Plant (FFP)	99.997%
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	99.9	99.9	0.0	0.0
Stack 2	100.0	98.1	98.7	0.0	0.0
Stack 3	100.0	99.9	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 July-2023

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
1	54.18	1 366	544
2	51.31	1 287	514
3	37.10	804	486
4	42.98	949	544
5	32.24	1 196	594
6	27.20	1 033	510
7	11.37	945	473
8	17.32	1 080	538
SUM	273.70	8 660	4 203

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	25	5	1	0	6	71.6
Stack 2	27	2	0	0	2	73.1
Stack 3	31	0	0	0	0	44.2
Stack 4	31	0	0	0	0	20.8
SUM	114	7	1	0	8	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm³)
Stack 1	31	0	0	0	0	1 738.8
Stack 2	31	0	0	0	0	1 525.6
Stack 3	31	0	0	0	0	1 580.3
Stack 4	31	0	0	0	0	1 229.6
SUM	124	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm³)
Stack 1	31	0	0	0	0	687.6
Stack 2	30	1	0	0	1	832.0
Stack 3	31	0	0	0	0	764.9
Stack 4	31	0	0	0	0	612.6
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 - July 2023

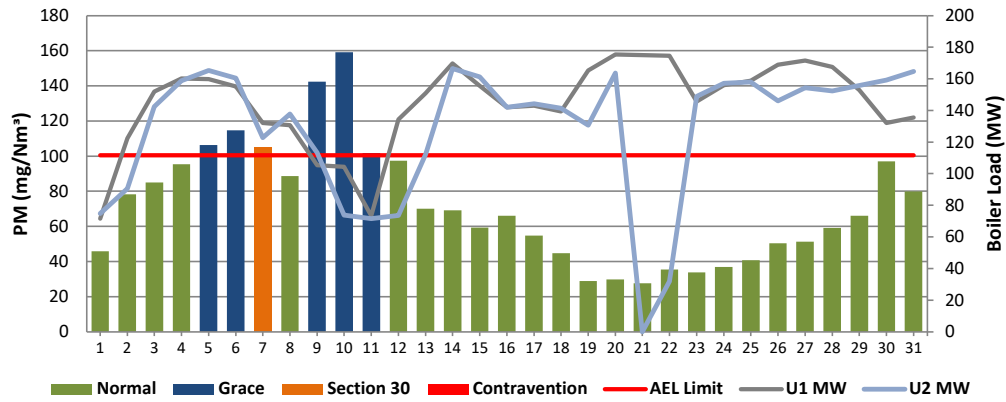


Figure 2: Camden Stack 2 PM Emissions - July 2023

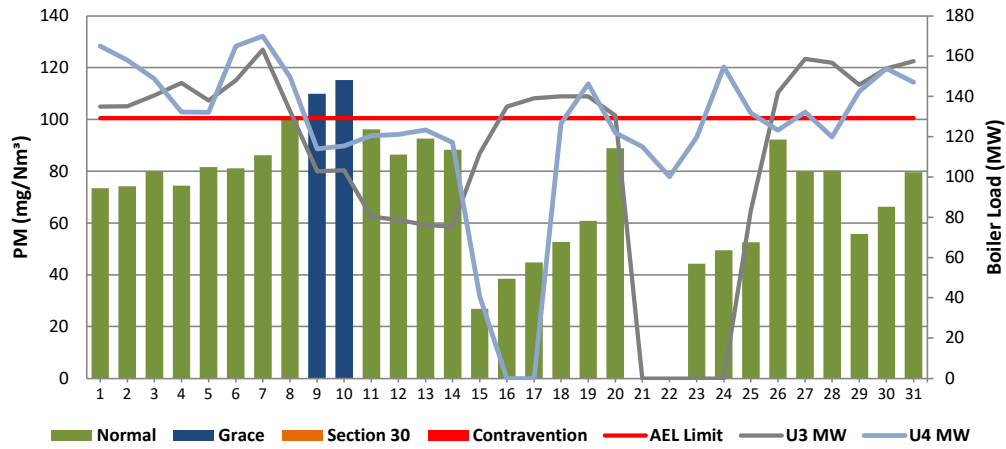


Figure 3: Camden Stack 3 PM Emissions - July 2023

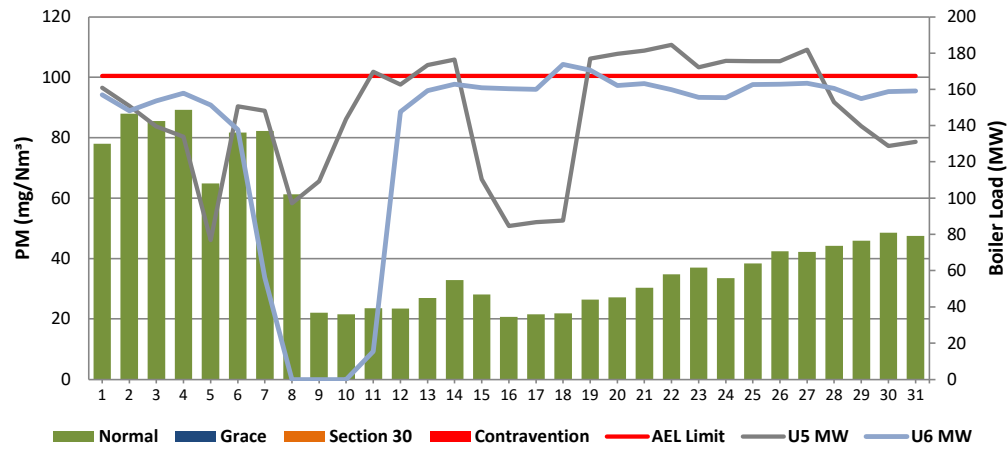


Figure 4: Camden Stack 4 PM Emissions - July 2023

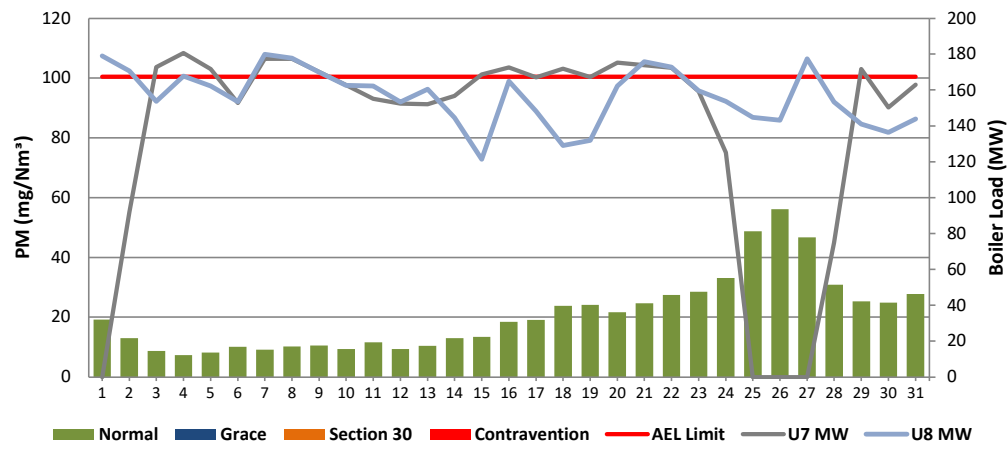


Figure 5: Camden Stack 1 SO₂ Emissions - July 2023

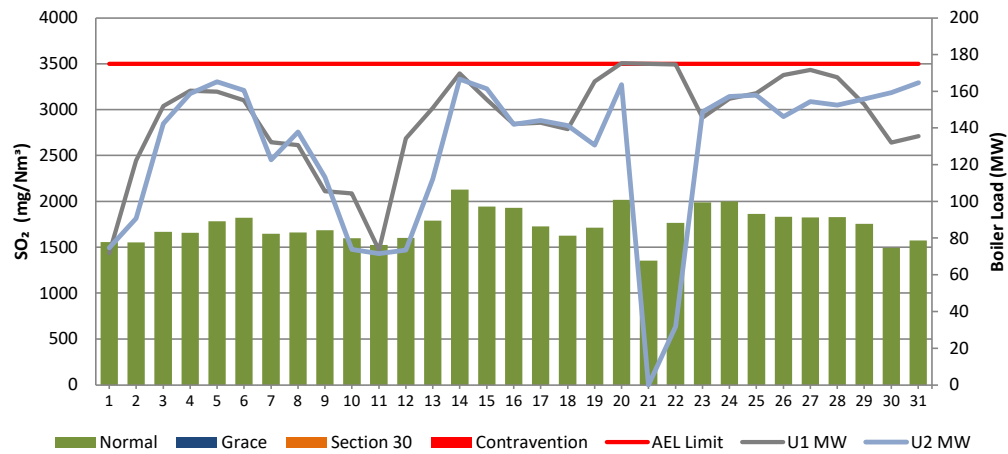


Figure 6: Camden Stack 2 SO₂ Emissions - July 2023

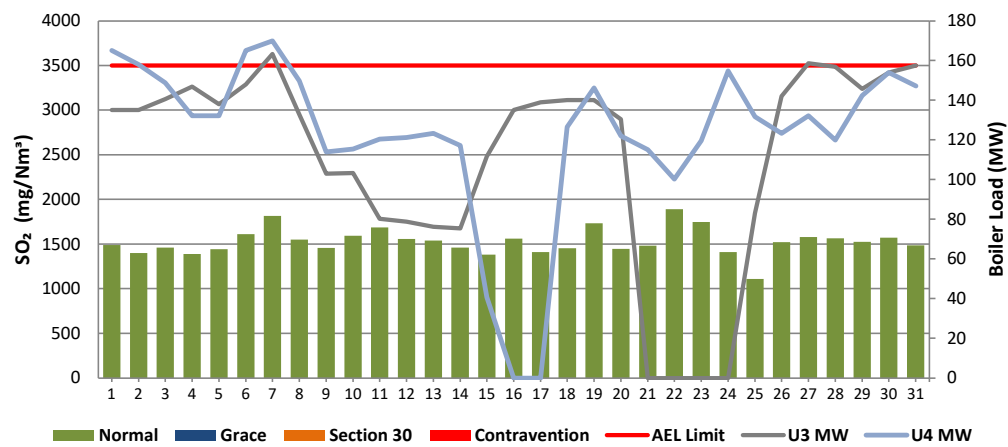


Figure 7: Camden Stack 3 SO₂ Emissions - July 2023

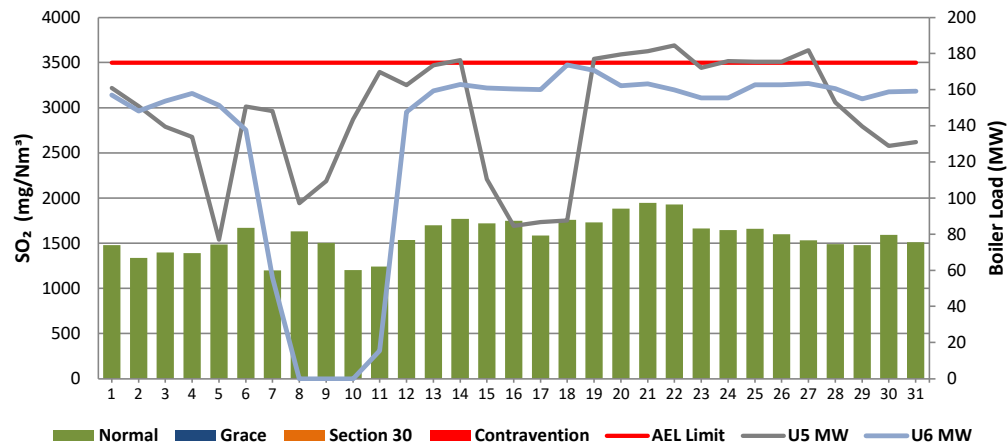


Figure 8: Camden Stack 4 SO₂ Emissions - July 2023

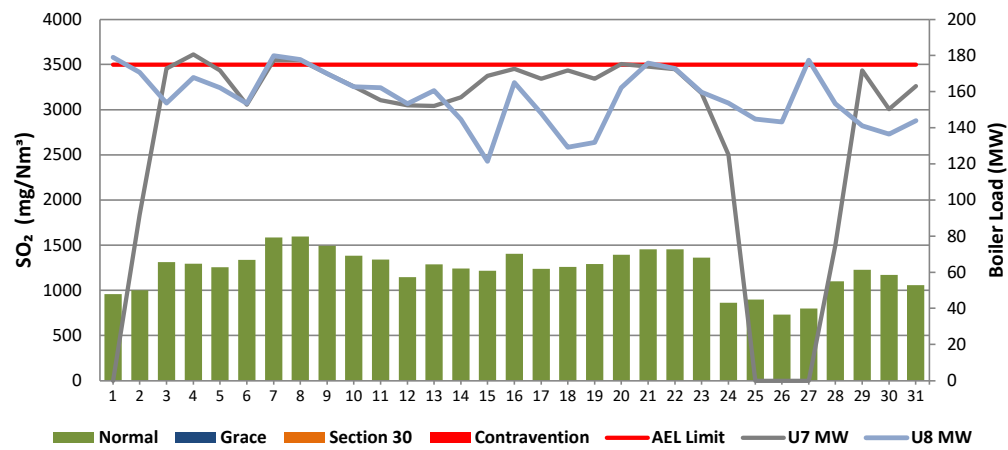


Figure 9: Camden Stack 1 NOx Emissions - July 2023

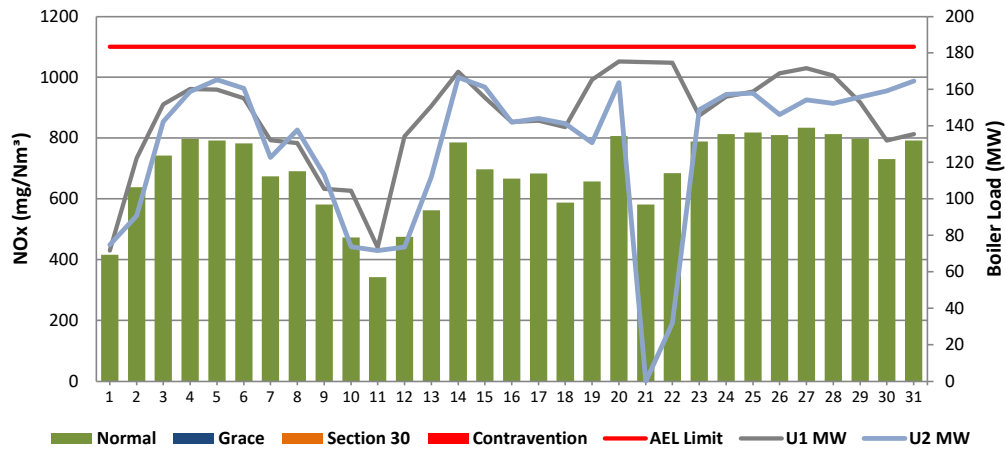


Figure 10: Camden Stack 2 NOx Emissions - July 2023

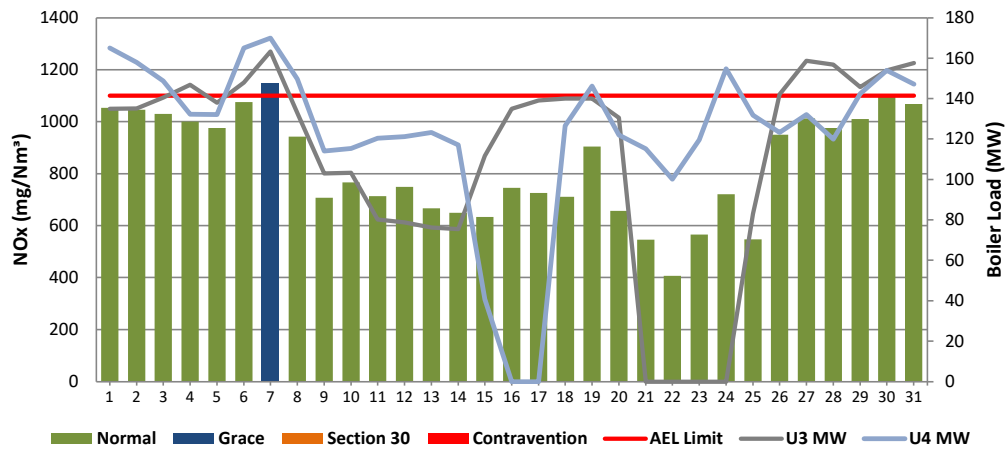


Figure 11: Camden Stack 3 NOx Emissions - July 2023

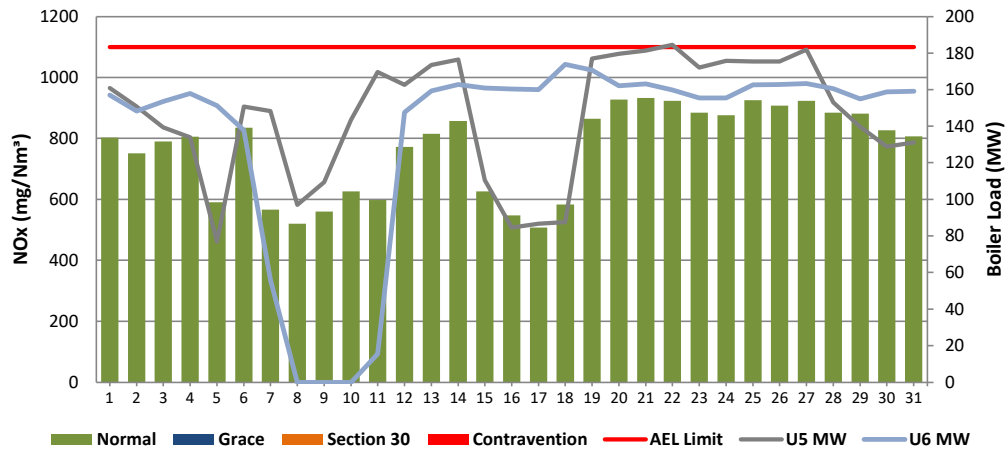
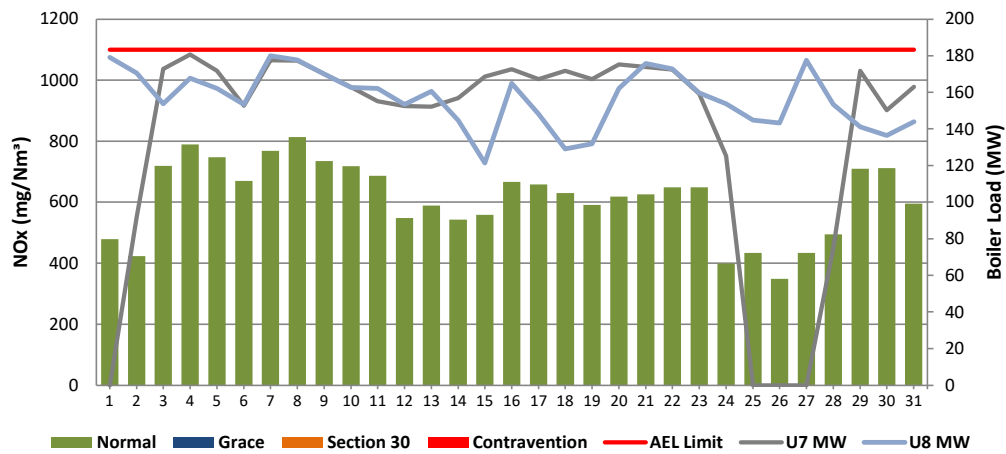


Figure 12: Camden Stack 4 NOx Emissions - July 2023



10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

None

Unit 6:

None

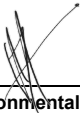
Unit 7:

None

Unit 8:

None

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

	2023/08/18		22/08/2023
Engineering Manager	Date	Environmental Manager	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