

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-2023
	Coal	Tons	550 000	368 403.00
	Fuel Oil	Tons	5 000	3 123.10
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Aug-2023
	Energy	GWh	1600	690.03
	Ash	Tons	not specified	86 133
	RE PM	kg/MWh	not specified	0.370

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.38
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	23.38

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 Aug-2023
Unit 1	Fabric Filter Plant (FFP)	99.993%
Unit 2	Fabric Filter Plant (FFP)	99.994%
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)	99.999%
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	100.0	100.0	0.0	0.0
Stack 2	100.0	96.6	97.4	0.0	0.0
Stack 3	100.0	99.7	98.3	0.0	0.0
Stack 4	100.0	99.7	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 August-2023

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
1	61.08	1 268	556
2	51.83	1 112	490
3	33.12	758	500
4	43.72	966	609
5	34.19	971	573
6	9.34	383	240
7	6.79	880	468
8	14.94	950	504
SUM	255.01	7 288	3 940

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	31	0	0	0	0	78.8
Stack 2	27	3	0	0	3	65.9
Stack 3	31	0	0	0	0	46.7
Stack 4	31	0	0	0	0	20.8
SUM	120	3	0	0	3	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm³)
Stack 1	31	0	0	0	0	1 586.1
Stack 2	31	0	0	0	0	1 407.5
Stack 3	31	0	0	0	0	1 284.5
Stack 4	31	0	0	0	0	1 203.5
SUM	124	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm³)
Stack 1	31	0	0	0	0	694.6
Stack 2	29	2	0	0	2	874.2
Stack 3	31	0	0	0	0	748.0
Stack 4	31	0	0	0	0	648.3
SUM	122	2	0	0	2	

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 2023

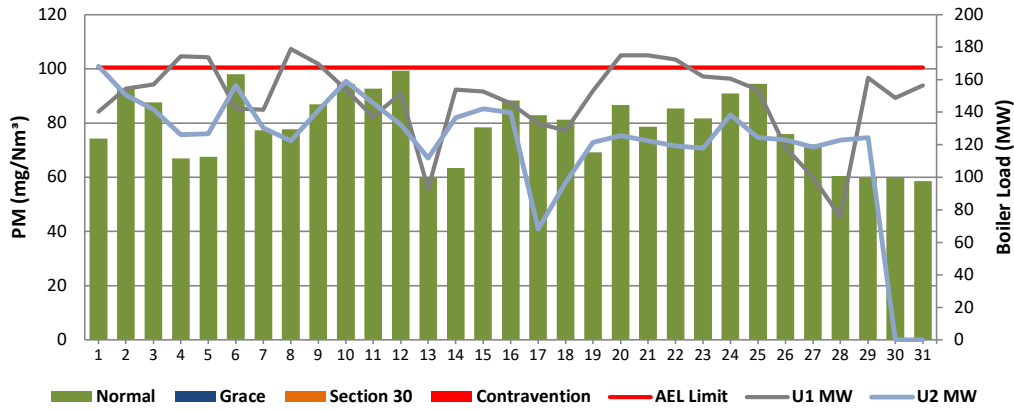


Figure 2: Camden Stack 2 PM Emissions - August 2023

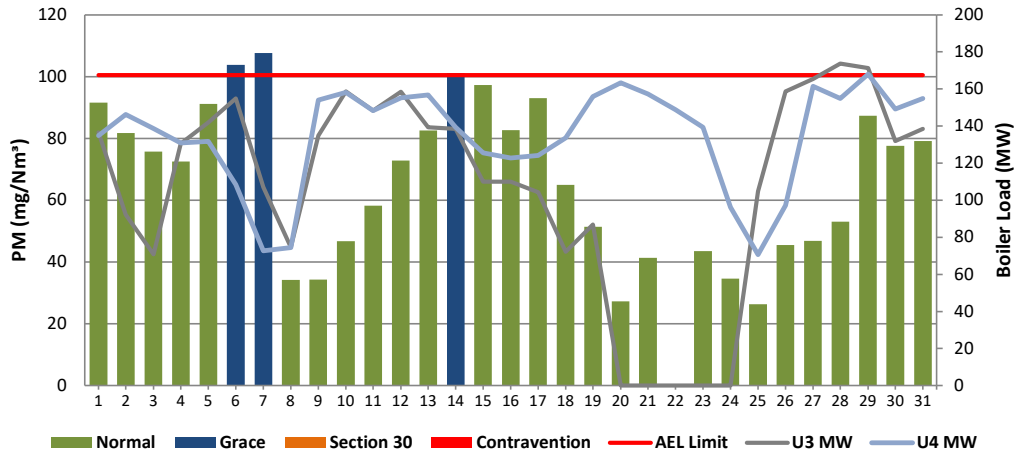


Figure 3: Camden Stack 3 PM Emissions - August 2023

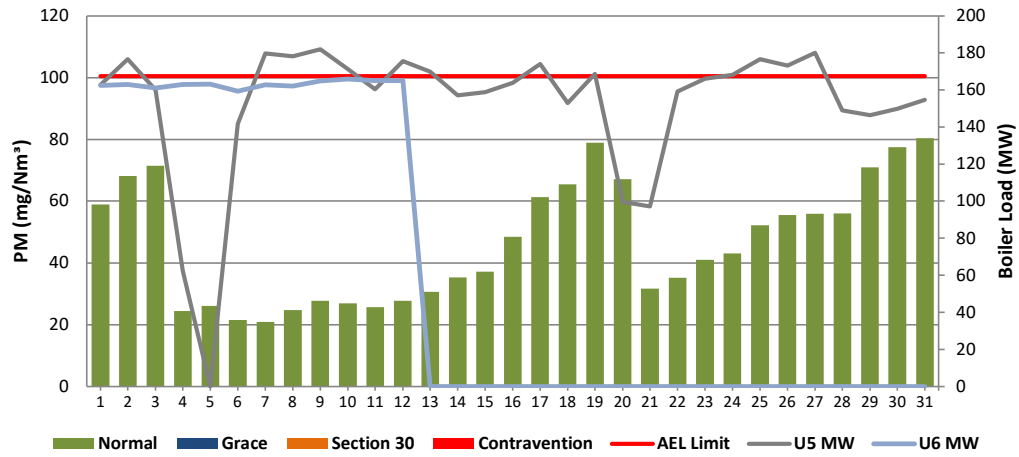


Figure 4: Camden Stack 4 PM Emissions - August 2023

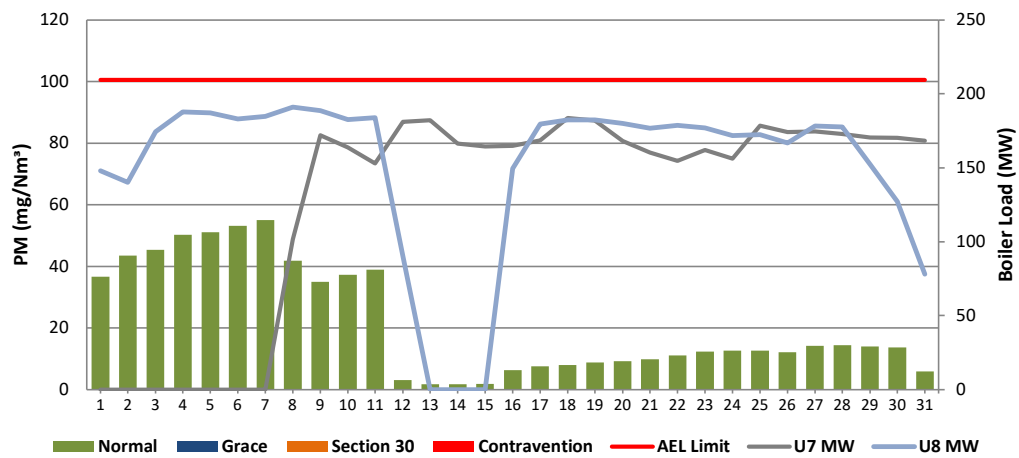


Figure 5: Camden Stack 1 SO₂ Emissions - August 2023

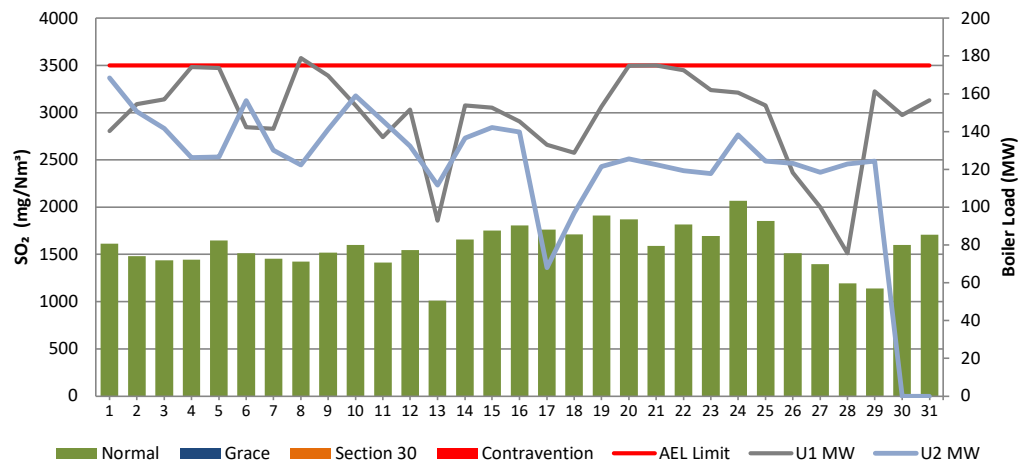


Figure 6: Camden Stack 2 SO₂ Emissions - August 2023

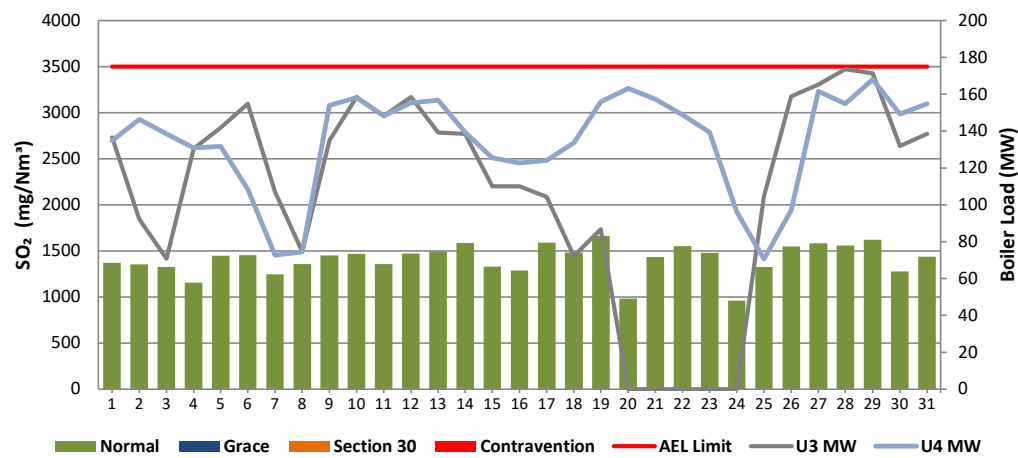


Figure 7: Camden Stack 3 SO₂ Emissions - August 2023

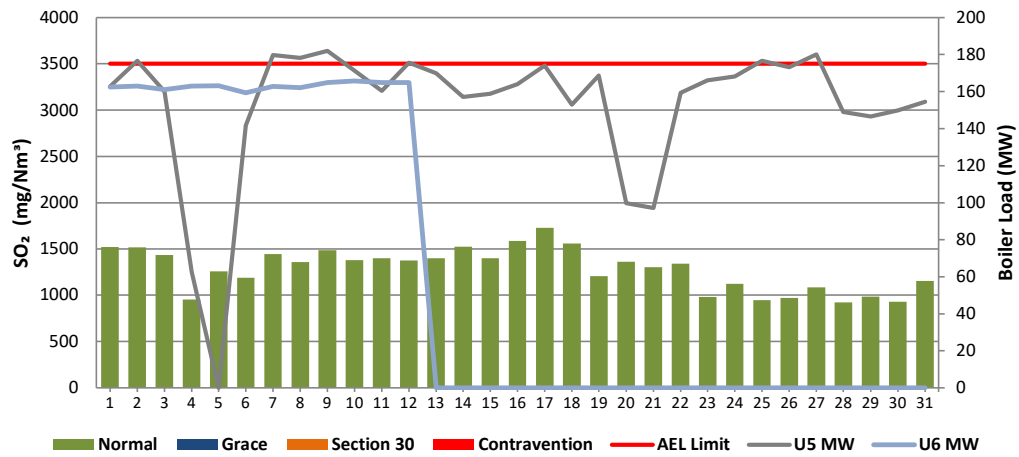


Figure 8: Camden Stack 4 SO₂ Emissions - August 2023

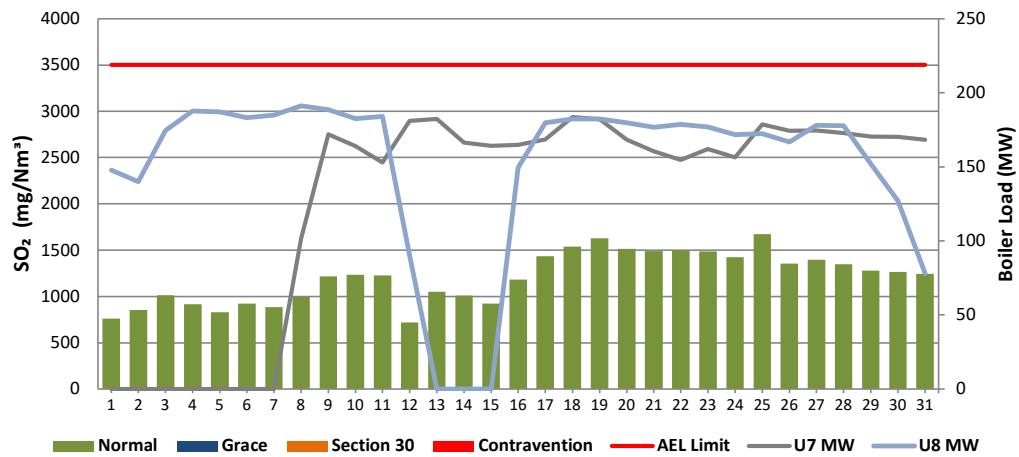


Figure 9: Camden Stack 1 NOx Emissions - August 2023

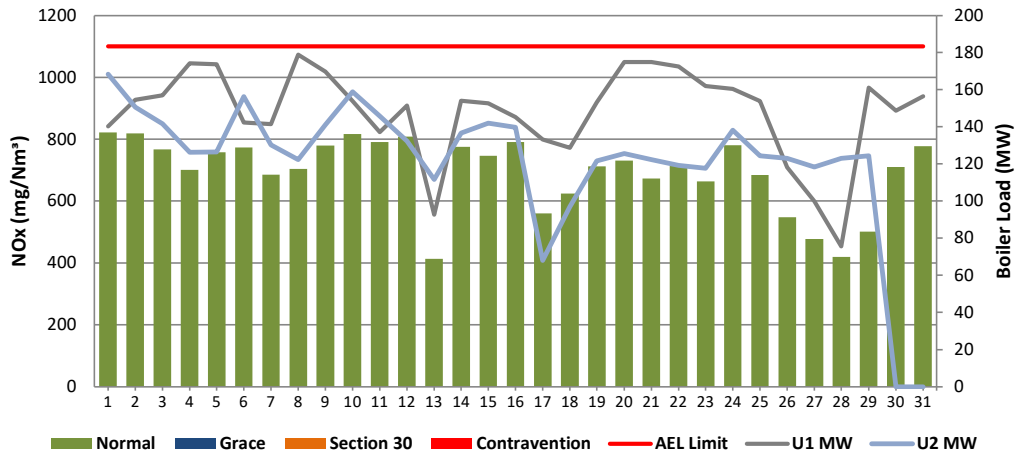


Figure 10: Camden Stack 2 NOx Emissions - August 2023

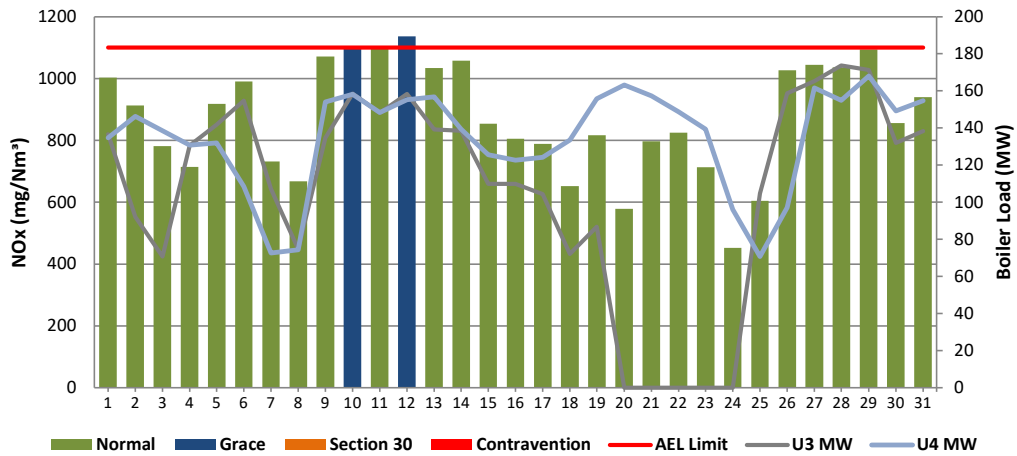


Figure 11: Camden Stack 3 NOx Emissions - August 2023

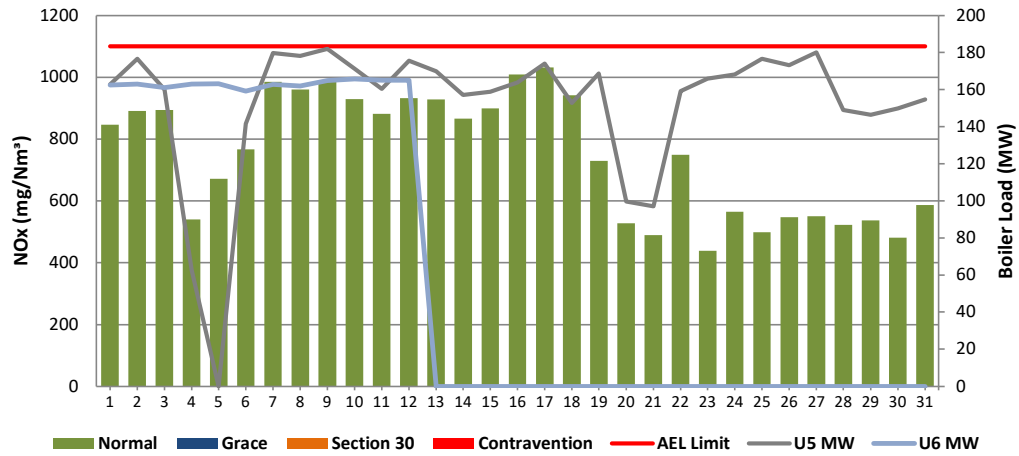
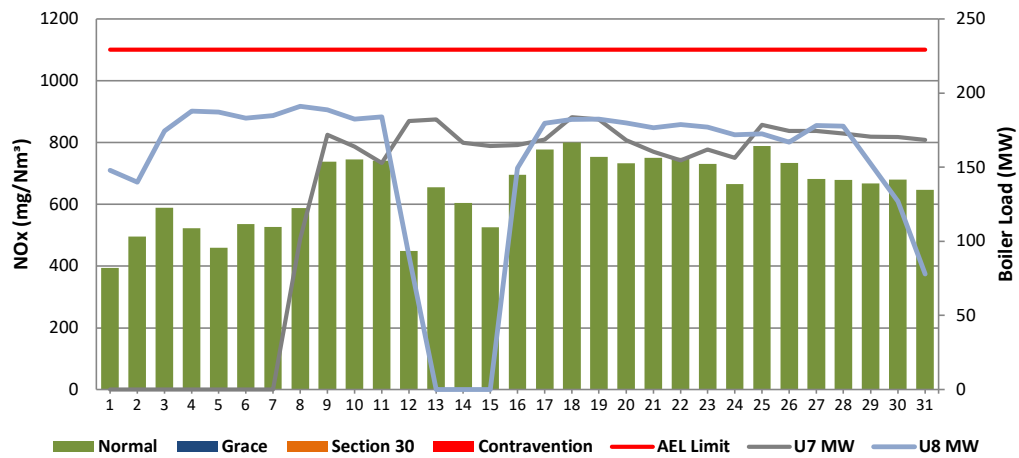


Figure 12: Camden Stack 4 NOx Emissions - August 2023



10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

None

Unit 6:

None

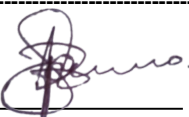
Unit 7:

None

Unit 8:

None

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


p.p.
Engineering Manager

18/09/2023
Date


Environmental Manager

18/09/2023
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