

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 Sep-2023
	Coal	Tons	550 000	388 576.10
	Fuel Oil	Tons	5 000	3 997.27
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Sep-2023
	Energy	GWh	1600	643.68
	Ash	Tons	not specified	86 147
	RE PM	kg/MWh	not specified	0.443

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.72
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	22.17

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 Sep-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)	99.996%
Unit 7	Fabric Filter Plant (FFP)	99.998%
Unit 8	Fabric Filter Plant (FFP)	99.998%

Note: Abatement plant does not have bypass mode operation, hence plant 100% Utilised.

5 MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO ₂	NO
Stack 1	100.0	98.5	98.8
Stack 2	100.0	97.4	97.5
Stack 3	100.0	99.9	99.9
Stack 4	100.0	99.6	99.9

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 September-2023

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
1	36.10	793	328
2	44.11	945	388
3	44.01	821	504
4	48.58	917	552
5	40.09	918	475
6	35.13	832	436
7	17.85	1 117	576
8	19.24	1 098	565
SUM	285.12	7 442	3 824

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	27	3	0	0	3	80.0
Stack 2	27	2	1	0	3	79.5
Stack 3	28	0	0	0	0	62.3
Stack 4	30	0	0	0	0	23.2
SUM	112	5	1	0	6	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm³)
Stack 1	30	0	0	0	0	1 562.0
Stack 2	30	0	0	0	0	1 439.7
Stack 3	28	0	0	0	0	1 456.6
Stack 4	30	0	0	0	0	1 336.1
SUM	118	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm³)
Stack 1	30	0	0	0	0	641.7
Stack 2	30	0	0	0	0	841.7
Stack 3	28	0	0	0	0	726.6
Stack 4	30	0	0	0	0	687.7
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 - September 2023

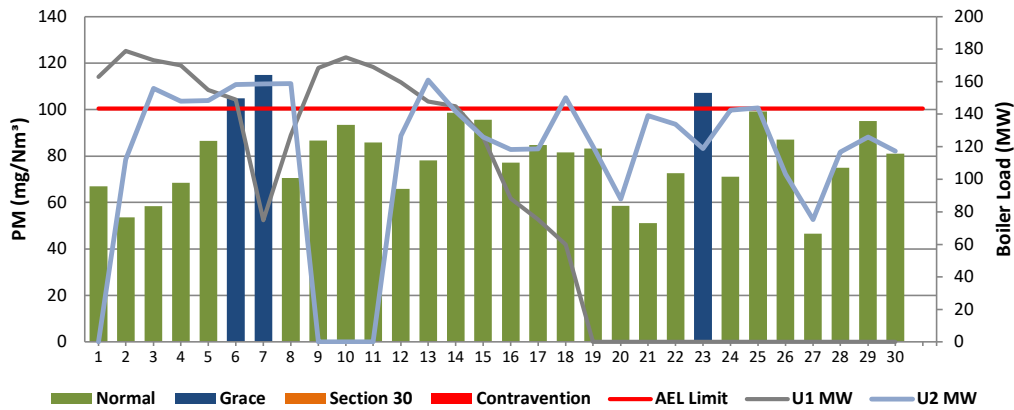


Figure 2: Camden Stack 2 PM Emissions - September 2023

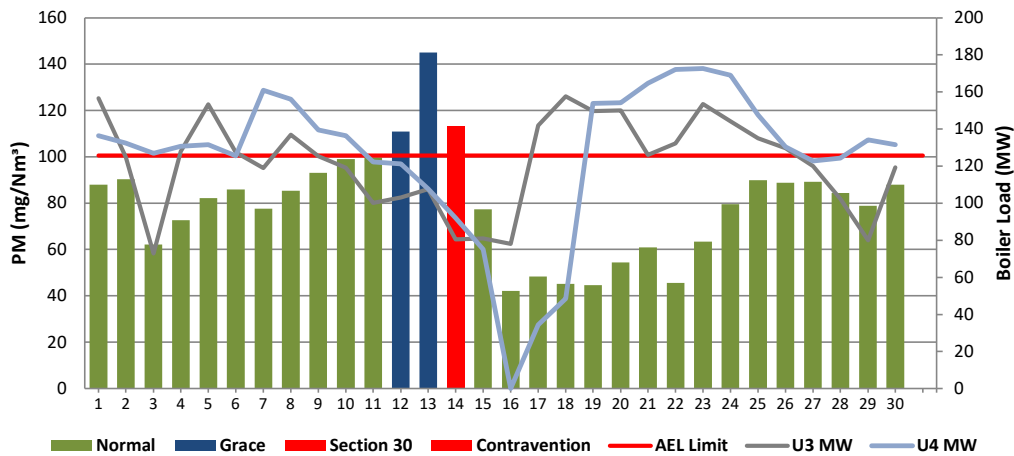


Figure 3: Camden Stack 3 PM Emissions - September 2023

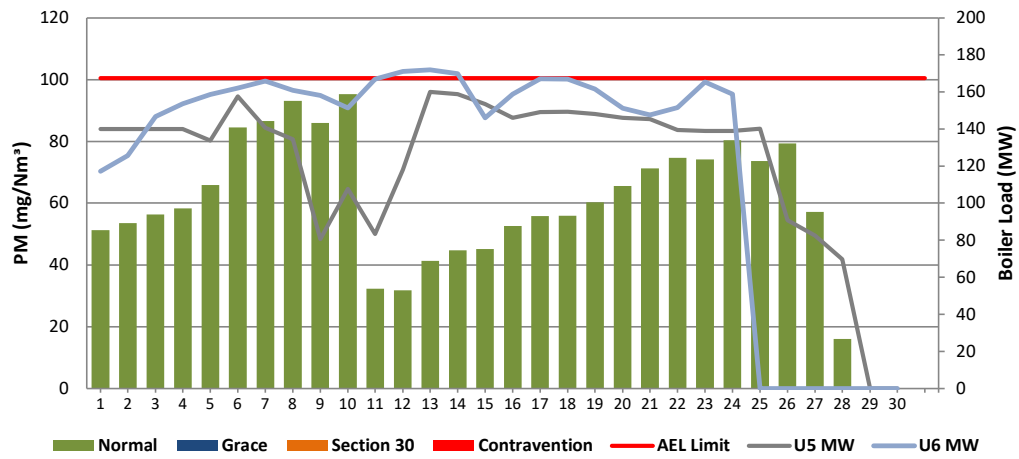


Figure 4: Camden Stack 4 PM Emissions - September 2023

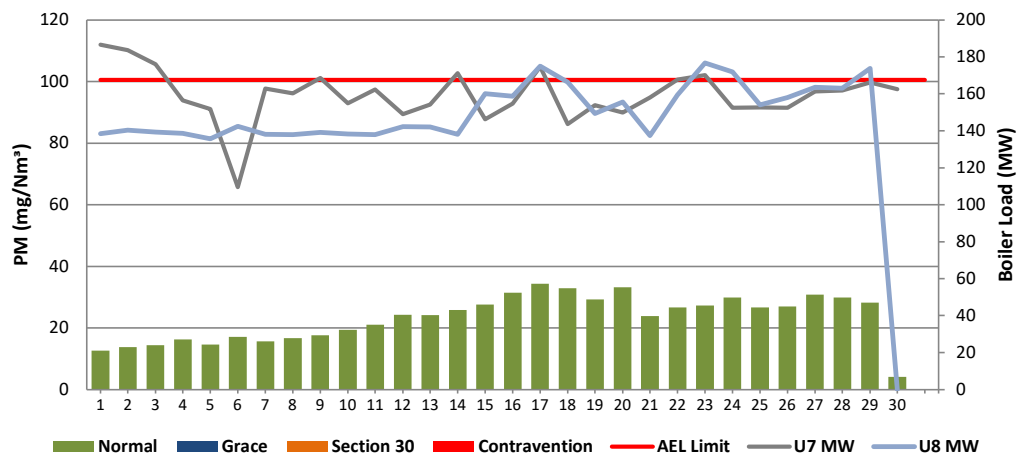


Figure 5: Camden Stack 1 SO₂ Emissions - September 2023

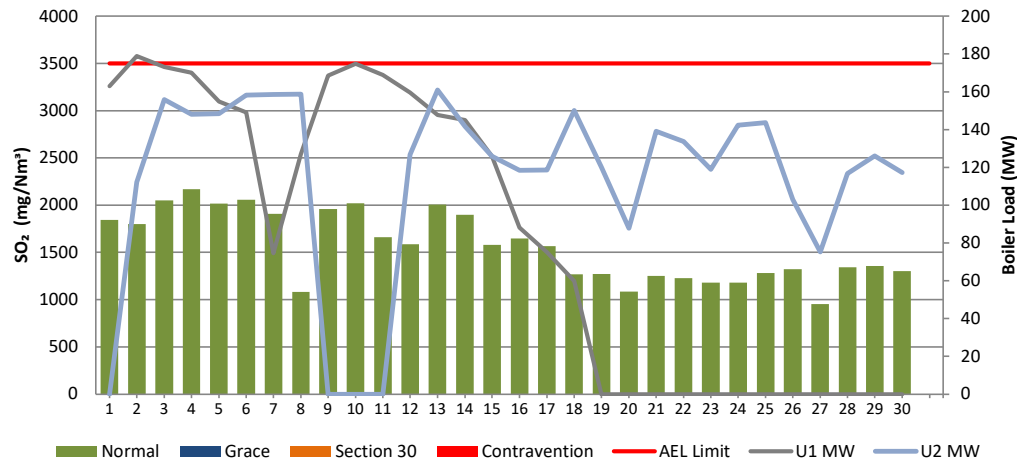


Figure 6: Camden Stack 2 SO₂ Emissions - September 2023

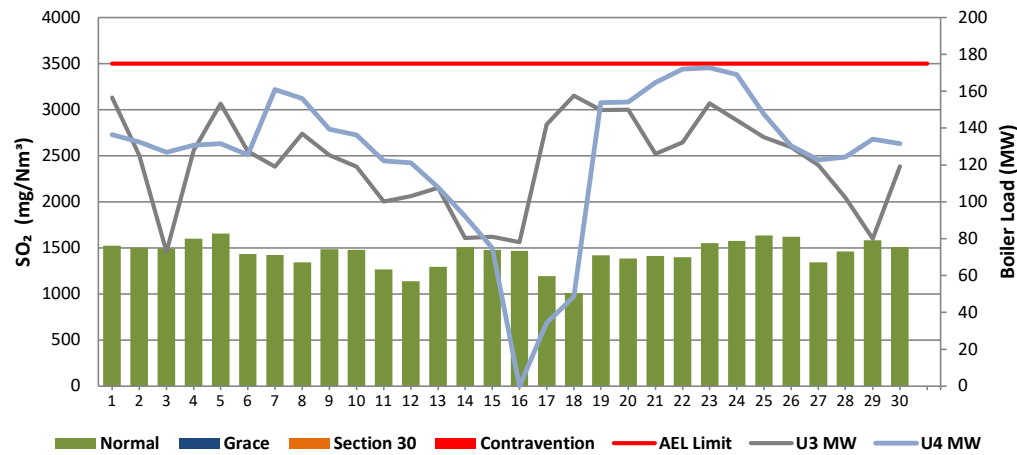


Figure 7: Camden Stack 3 SO₂ Emissions - September 2023

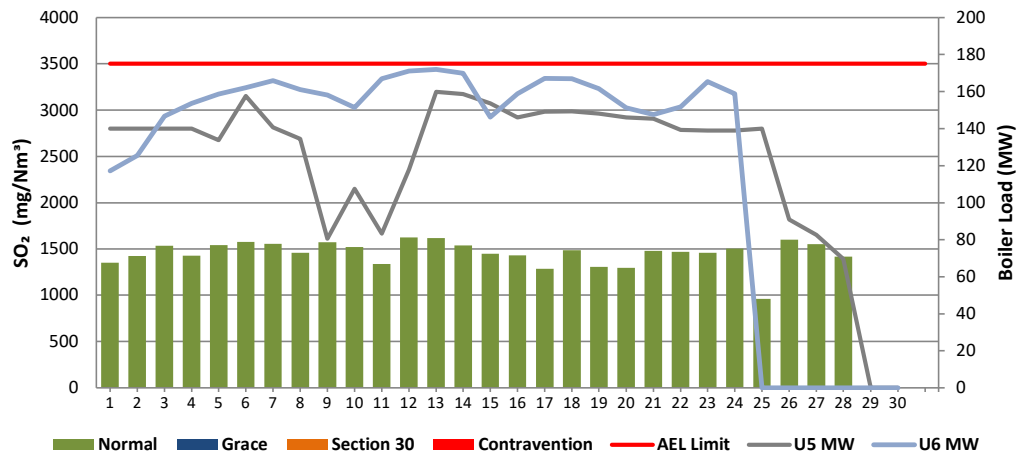


Figure 8: Camden Stack 4 SO₂ Emissions - September 2023

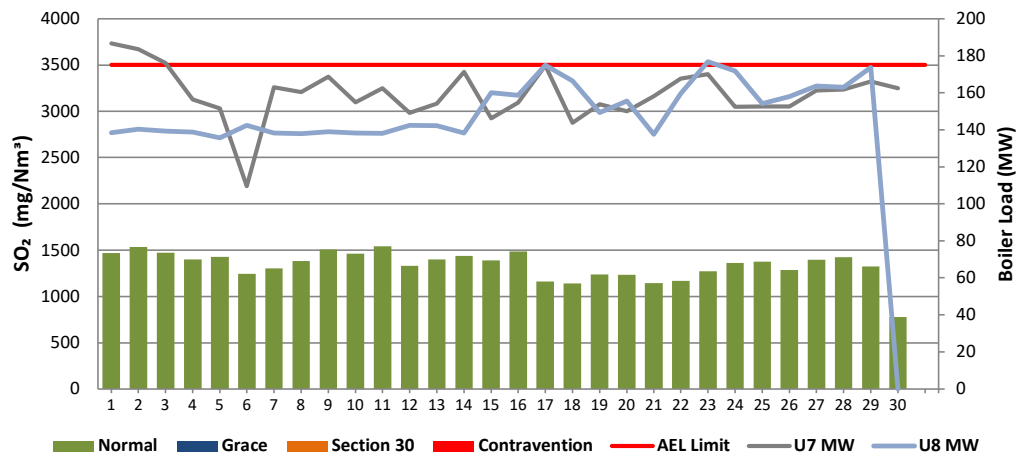


Figure 9: Camden Stack 1 NOx Emissions - September 2023

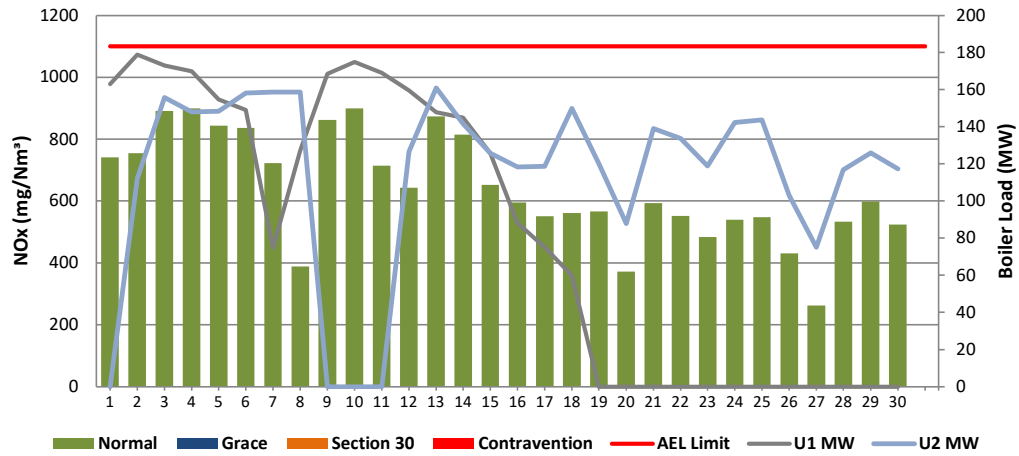


Figure 10: Camden Stack 2 NOx Emissions - September 2023

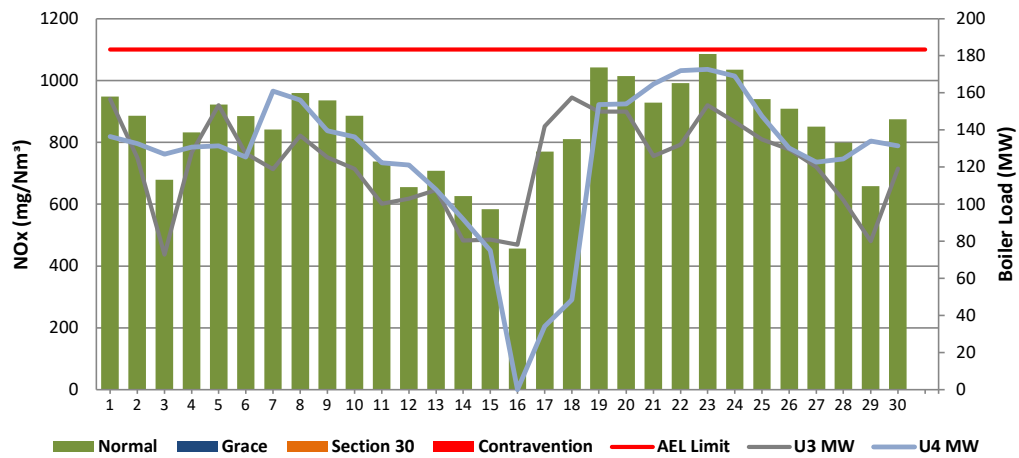


Figure 11: Camden Stack 3 NOx Emissions - September 2023

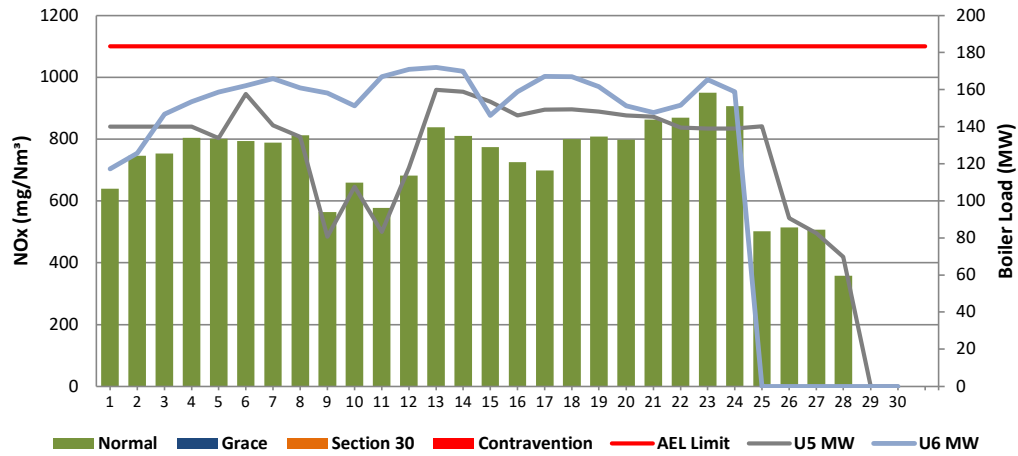
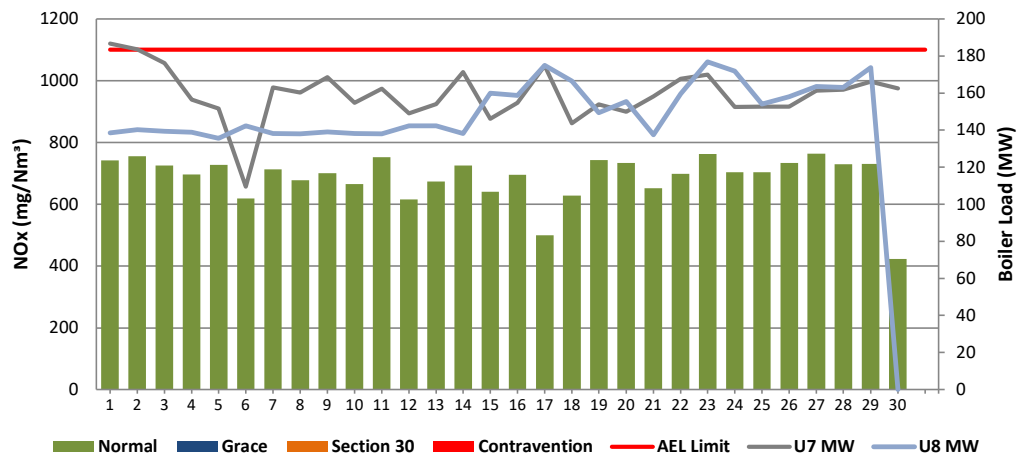


Figure 12: Camden Stack 4 NOx Emissions - September 2023



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

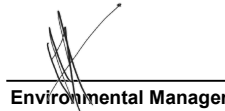
The Station had Fuel Oil Plant issues for the month of September 2023


Engineering Manager

20-10-2023

Date

PP S Govender


Environmental Manager

20/10/2023

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