

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 Dec-2023
	Coal	Tons	550 000	405 829.30
	Fuel Oil	Tons	5 000	3 574.29

Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Dec-2023
	Energy	GWh	1600	653.90
	Ash	Tons	not specified	93 097
	RE PM	kg/MWh	not specified	0.434

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.49
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	22.94

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 Dec-2023
Unit 1	Fabric Filter Plant (FFP)	99.996%
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)	99.996%
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
Stack 1	100.0	100.0	100.0
Stack 2	100.0	100.0	100.0
Stack 3	100.0	99.9	100.0
Stack 4	100.0	87.8	87.9

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 December-2023

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
1	31.93	1 027	360
2	32.70	860	334
3	35.15	662	406
4	54.03	1 145	683
5	48.49	936	482
6	59.22	1 073	527
7	12.34	1 048	539
8	10.01	838	413
SUM	283.87	7 589	3 744

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)
Stack 1	31	0	0	0	0	62.9
Stack 2	31	0	0	0	0	77.6
Stack 3	30	1	0	0	1	82.5
Stack 4	31	0	0	0	0	14.9
SUM	123	1	0	0	1	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm ³)
Stack 1	31	0	0	0	0	1 635.4
Stack 2	31	0	0	0	0	1 445.6
Stack 3	31	0	0	0	0	1 447.5
Stack 4	31	0	0	0	0	1 197.3
SUM	124	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm ³)
Stack 1	31	0	0	0	0	594.2
Stack 2	31	0	0	0	0	862.4
Stack 3	31	0	0	0	0	710.7
Stack 4	30	1	0	0	1	615.8
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 - December 2023

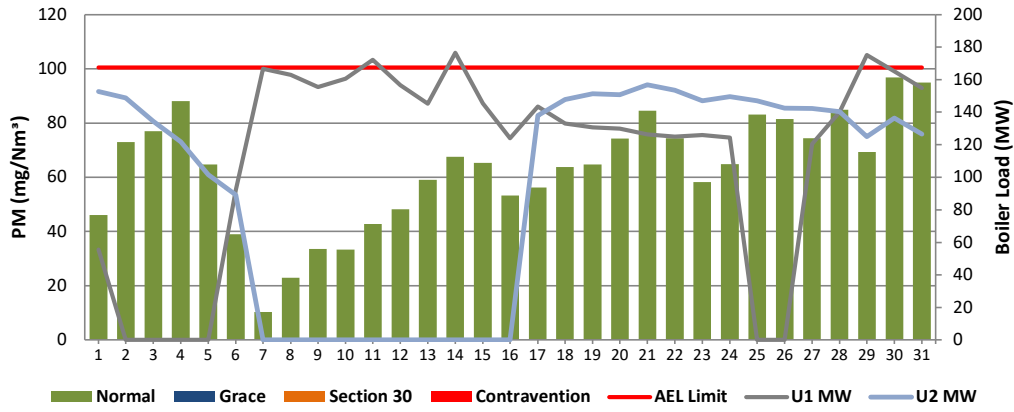


Figure 2: Camden Stack 2 PM Emissions - December 2023

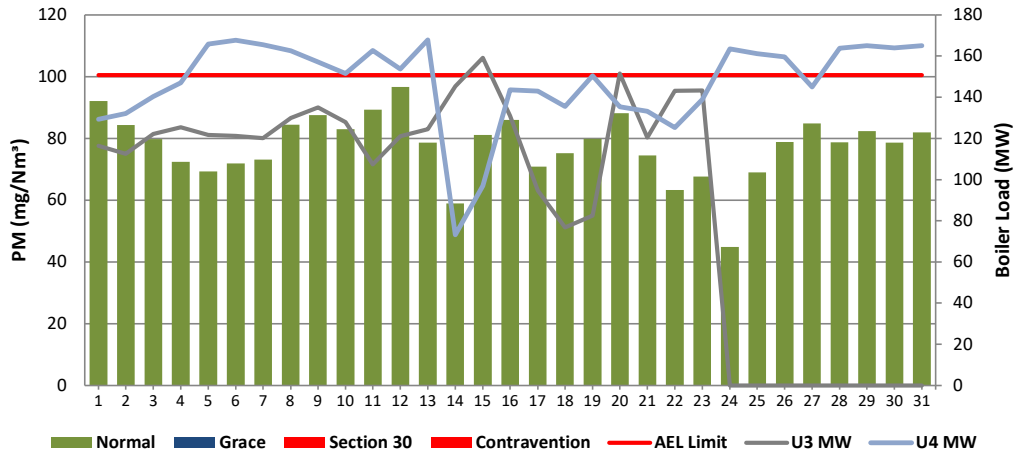


Figure 3: Camden Stack 3 PM Emissions - December 2023

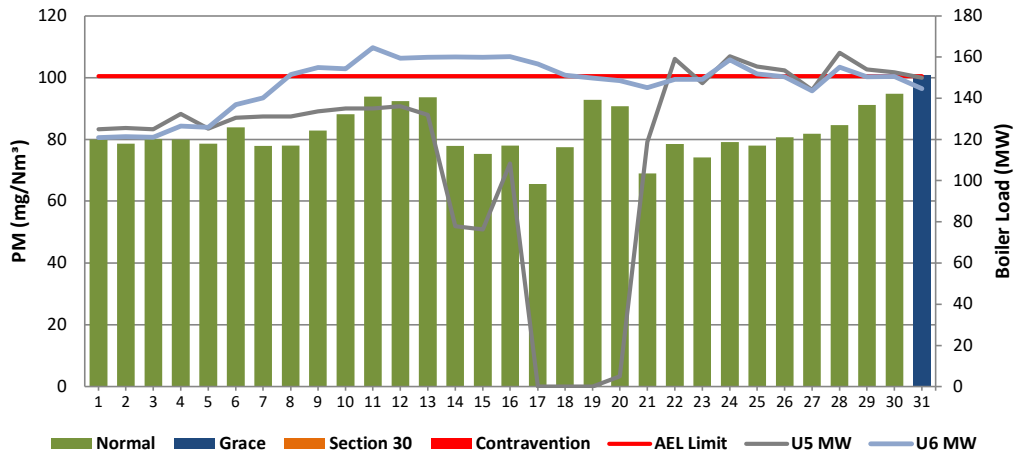


Figure 4: Camden Stack 4 PM Emissions - December 2023

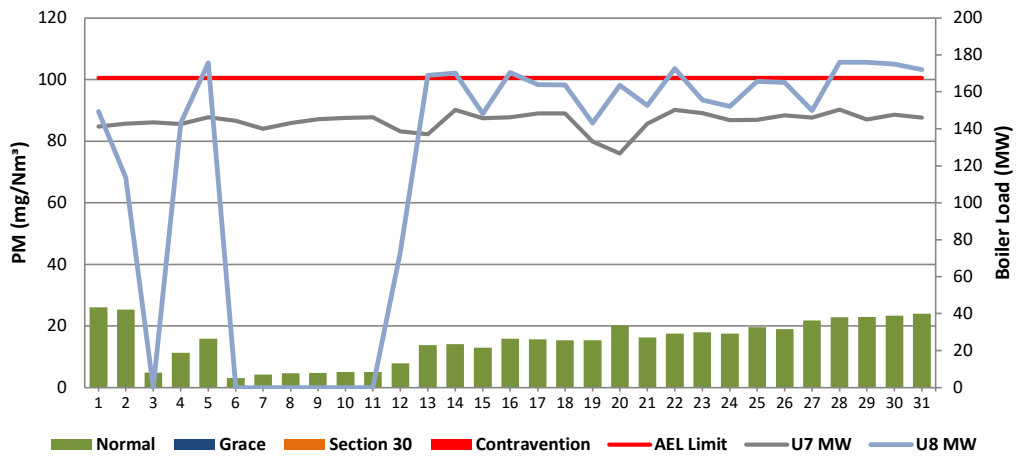


Figure 5: Camden Stack 1 SO₂ Emissions - December 2023

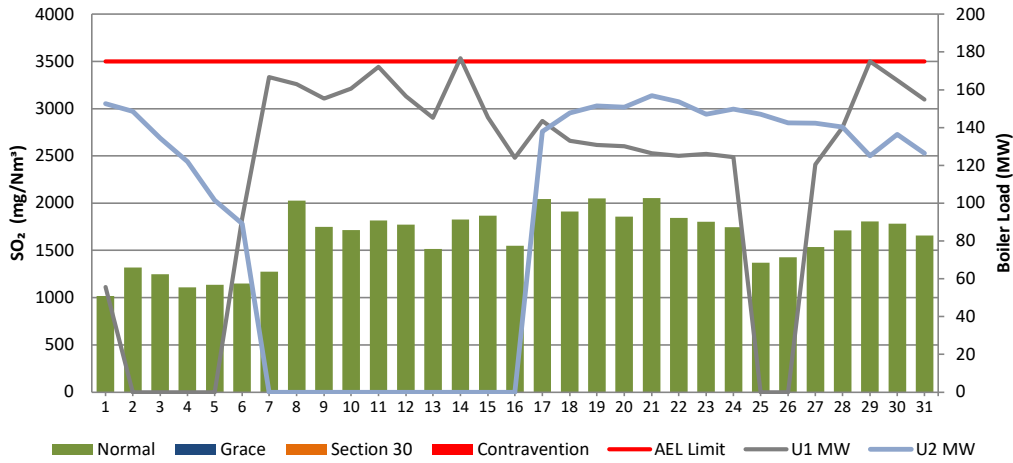


Figure 6: Camden Stack 2 SO₂ Emissions - December 2023

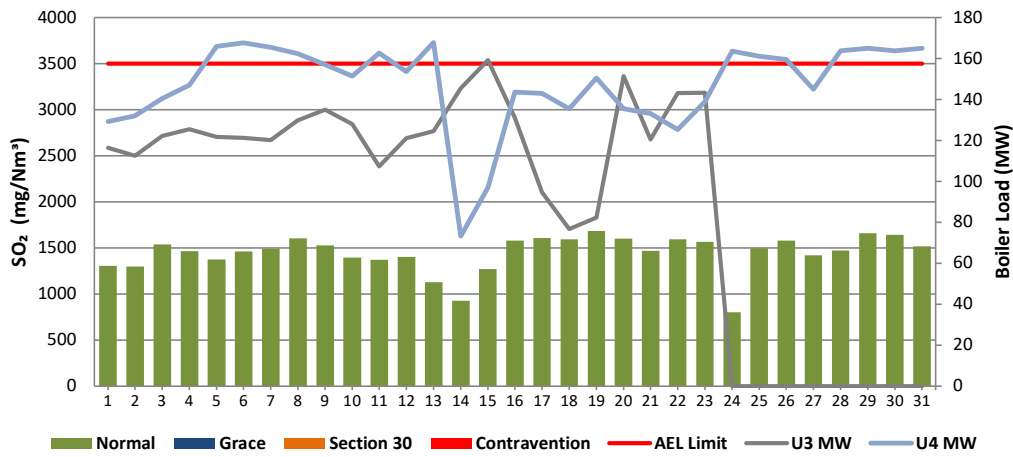


Figure 7: Camden Stack 3 SO₂ Emissions - December 2023

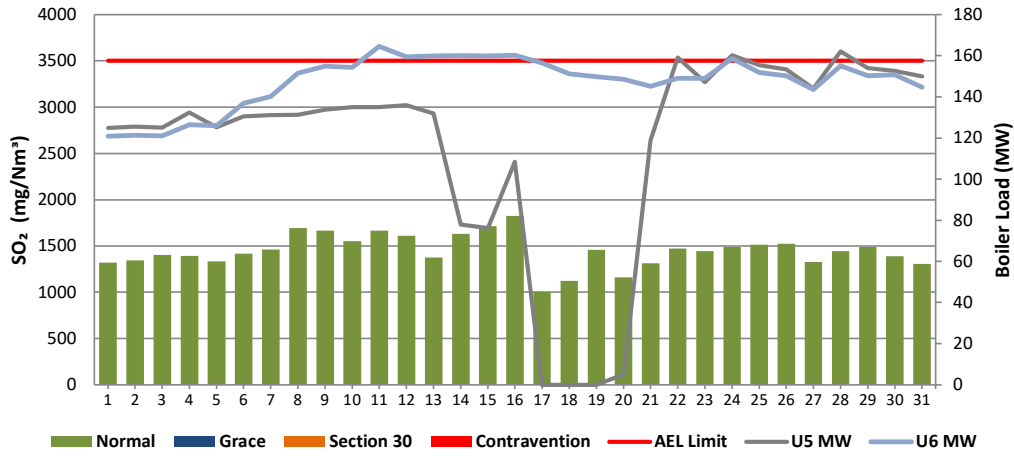


Figure 8: Camden Stack 4 SO₂ Emissions - December 2023

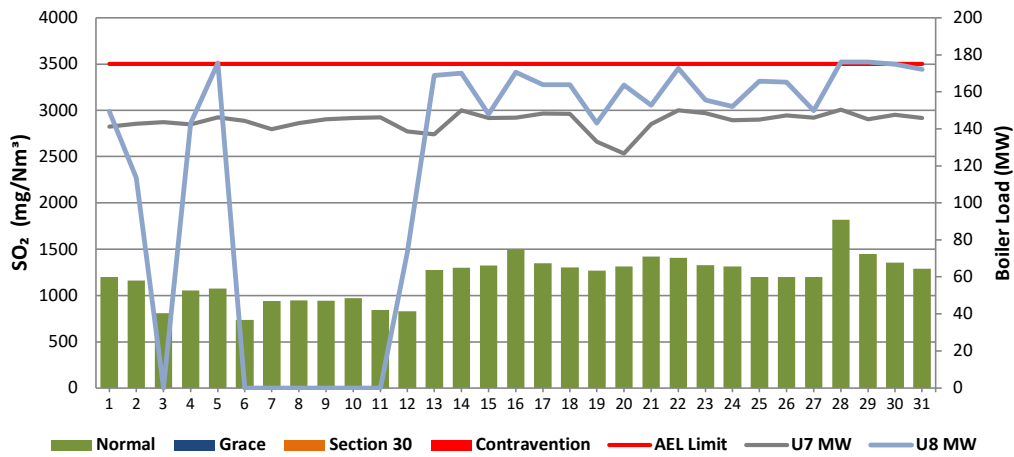


Figure 9: Camden Stack 1 NOx Emissions - December 2023

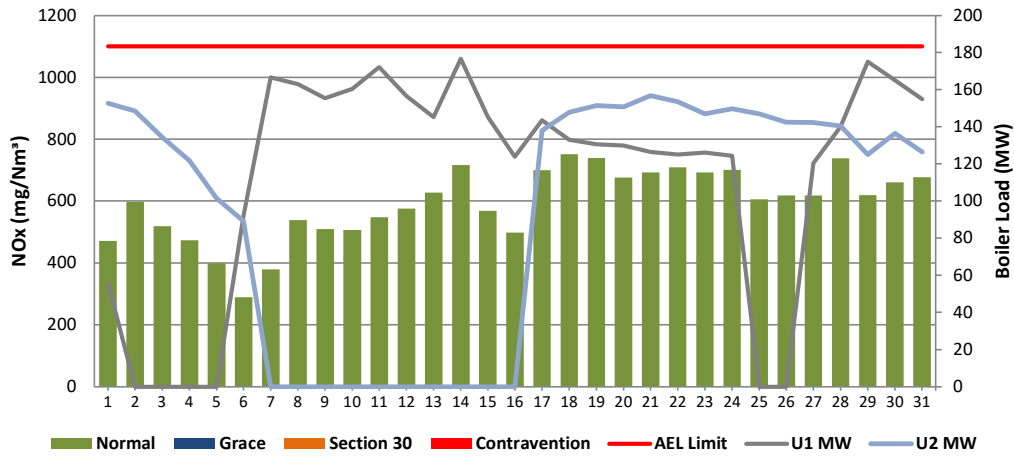


Figure 10: Camden Stack 2 NOx Emissions - December 2023

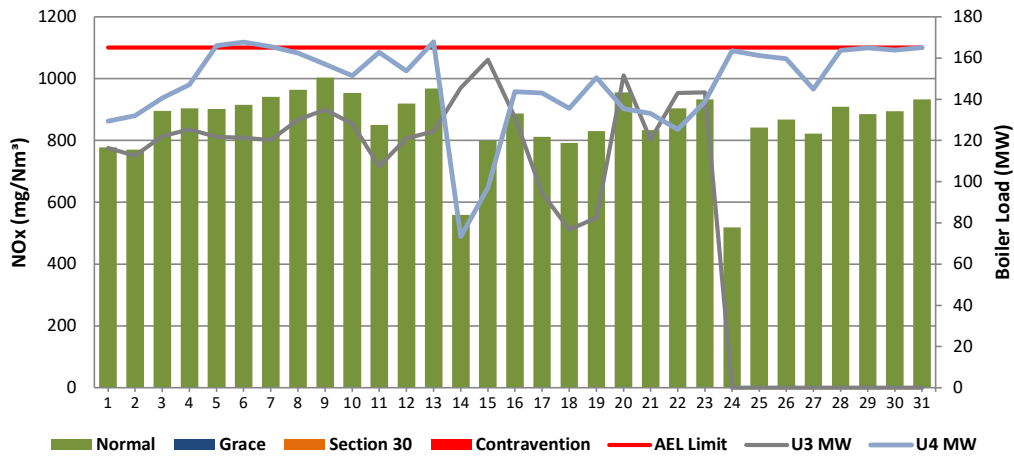


Figure 11: Camden Stack 3 NOx Emissions - December 2023

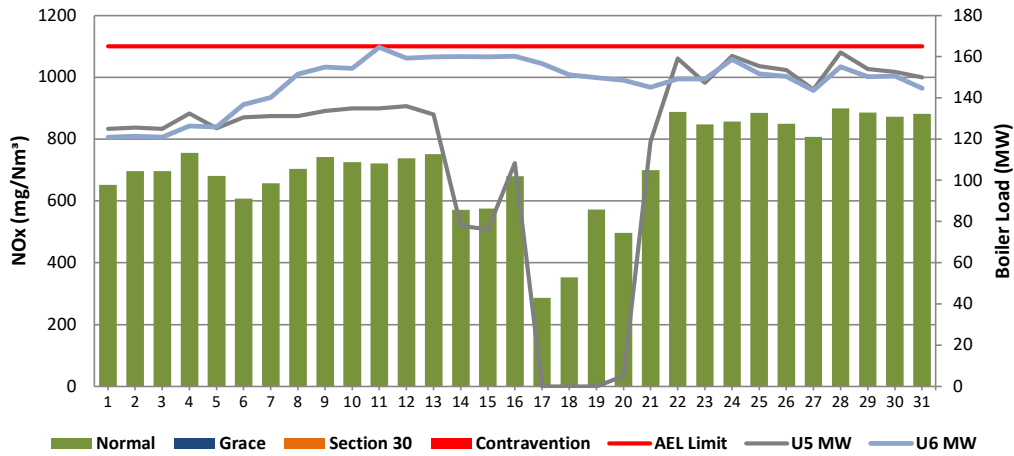
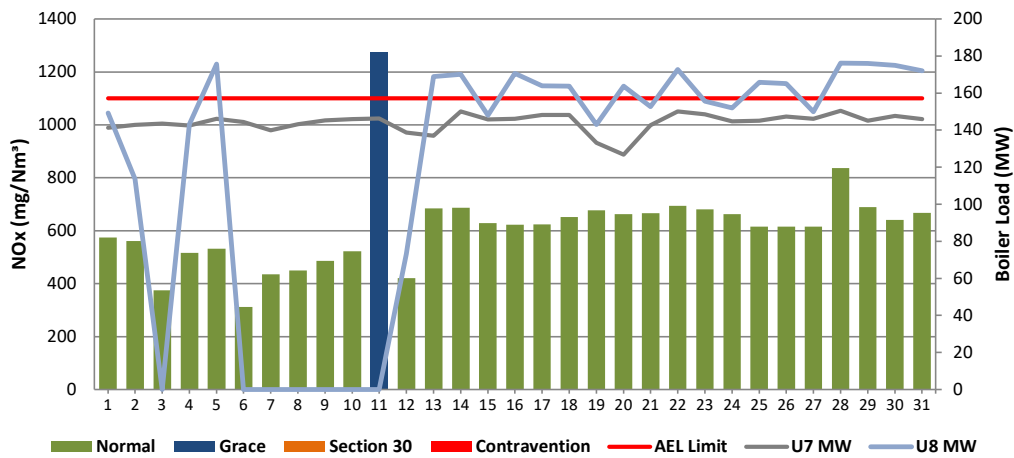


Figure 12: Camden Stack 4 NOx Emissions - December 2023



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

	26-01-2024		26/01/2024
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