

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 Nov-2023
	Coal	Tons	550 000	348 562.50
	Fuel Oil	Tons	5 000	4 441.83
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Nov-2023
	Energy	GWh	1600	561.46
	Ash	Tons	not specified	82 540
	RE PM	kg/MWh	not specified	0.407

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.57
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	23.68

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 Nov-2023
Unit 1	Fabric Filter Plant (FFP)	Exempt
Unit 2	Fabric Filter Plant (FFP)	99.996%
Unit 3	Fabric Filter Plant (FFP)	99.996%
Unit 4	Fabric Filter Plant (FFP)	99.995%
Unit 5	Fabric Filter Plant (FFP)	99.996%
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	99.6	98.3	97.5

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 November-2023

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
1	Exempt	25	9
2	32.65	832	327
3	46.11	909	559
4	39.16	731	444
5	47.66	1 125	583
6	37.08	939	461
7	10.83	848	428
8	15.30	1 057	530
SUM	228.78	6 465	3 340

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	25	0	0	0	0	53.1
Stack 2	28	2	0	0	2	76.1
Stack 3	28	2	0	0	2	69.5
Stack 4	30	0	0	0	0	18.0
SUM	111	4	0	0	4	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm³)
Stack 1	27	0	0	0	0	1 295.6
Stack 2	30	0	0	0	0	1 449.8
Stack 3	30	0	0	0	0	1 593.1
Stack 4	30	0	0	0	0	1 221.1
SUM	117	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm³)
Stack 1	27	0	0	0	0	494.8
Stack 2	30	0	0	0	0	867.2
Stack 3	30	0	0	0	0	805.3
Stack 4	30	0	0	0	0	612.7
SUM	117	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 - November 2023

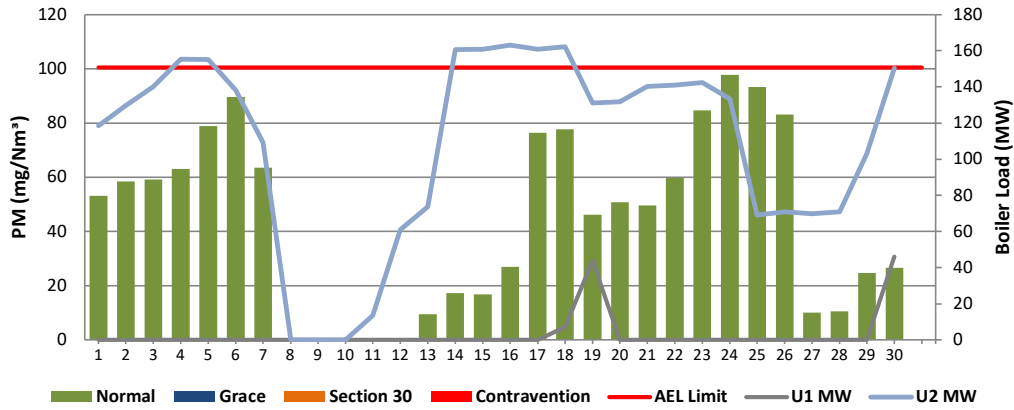


Figure 2: Camden Stack 2 PM Emissions - November 2023

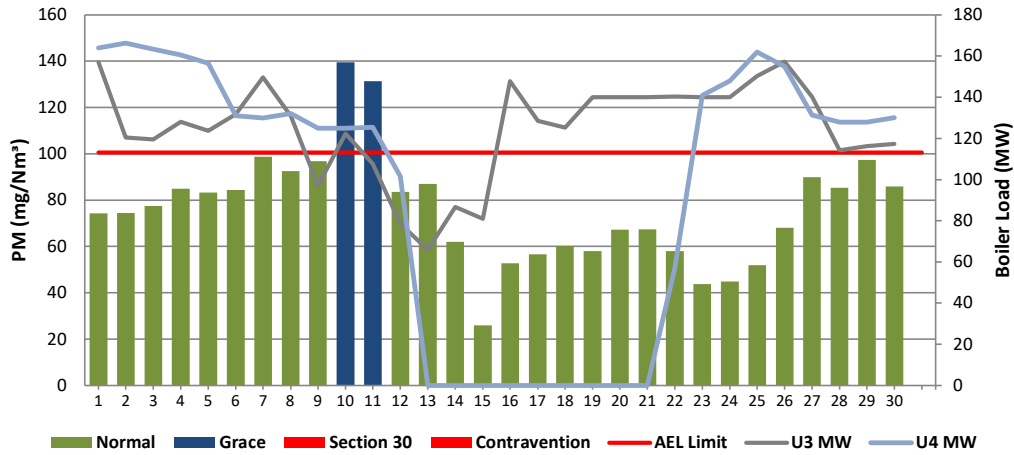


Figure 3: Camden Stack 3 PM Emissions - November 2023

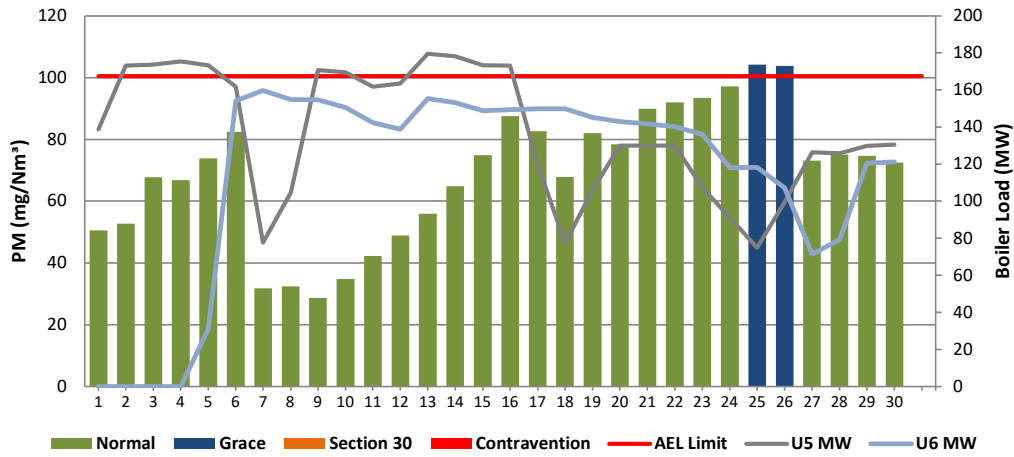


Figure 4: Camden Stack 4 PM Emissions - November 2023

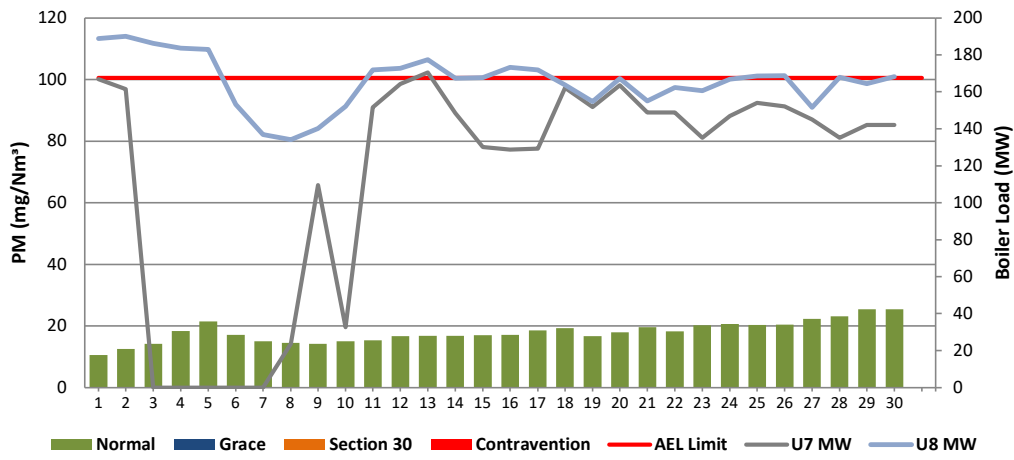


Figure 5: Camden Stack 1 SO₂ Emissions - November 2023

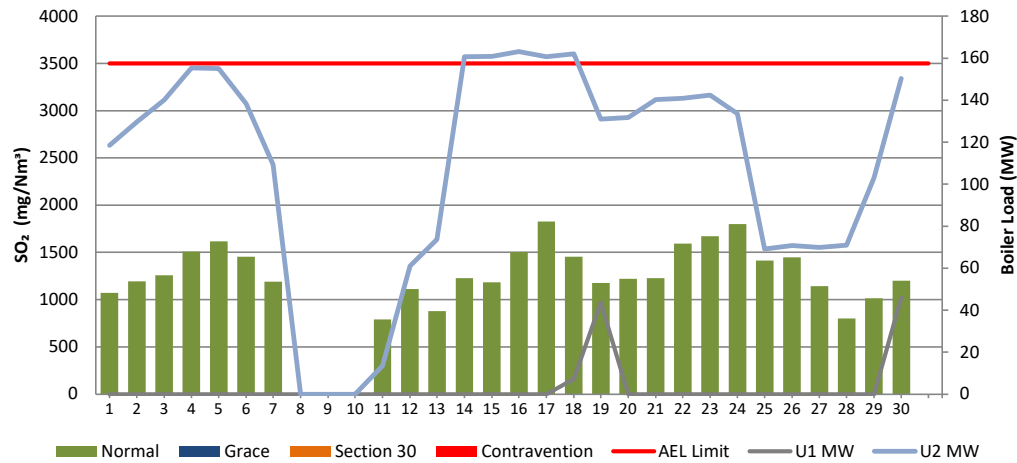


Figure 6: Camden Stack 2 SO₂ Emissions - November 2023

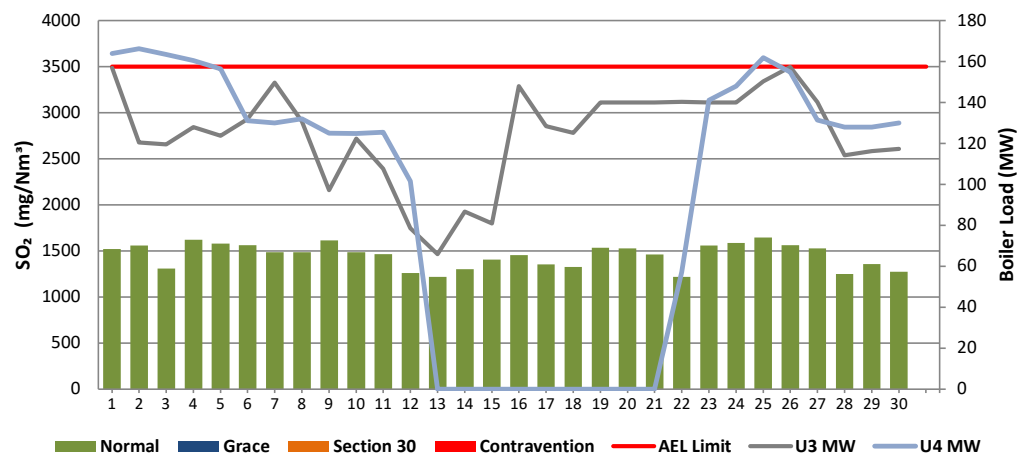


Figure 7: Camden Stack 3 SO₂ Emissions - November 2023

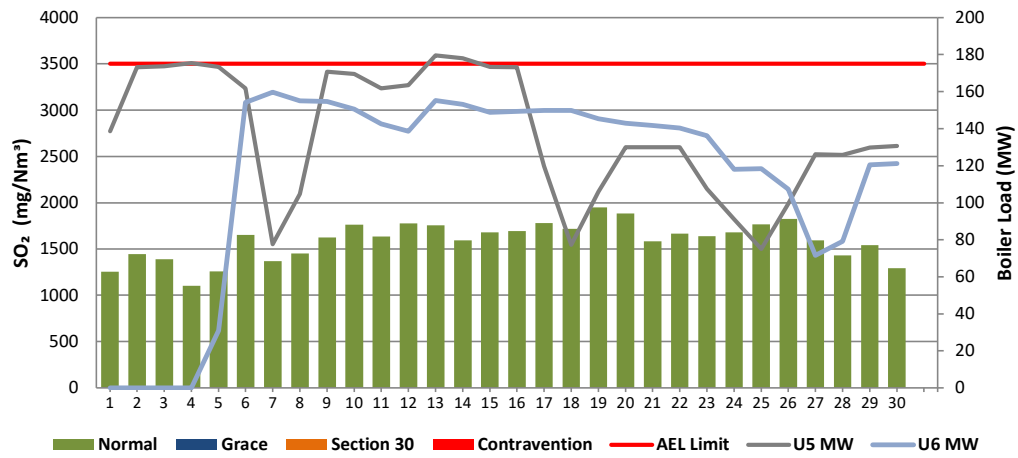


Figure 8: Camden Stack 4 SO₂ Emissions - November 2023

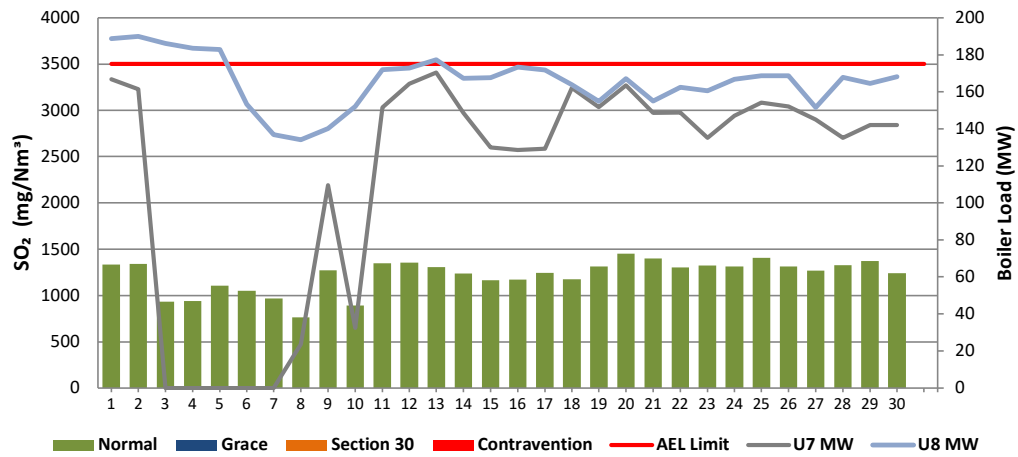


Figure 9: Camden Stack 1 NOx Emissions - November 2023

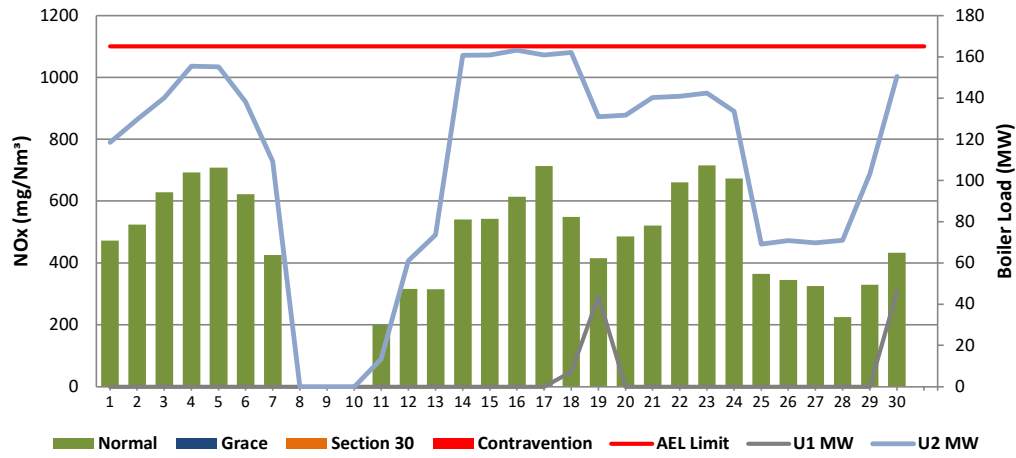


Figure 10: Camden Stack 2 NOx Emissions - November 2023

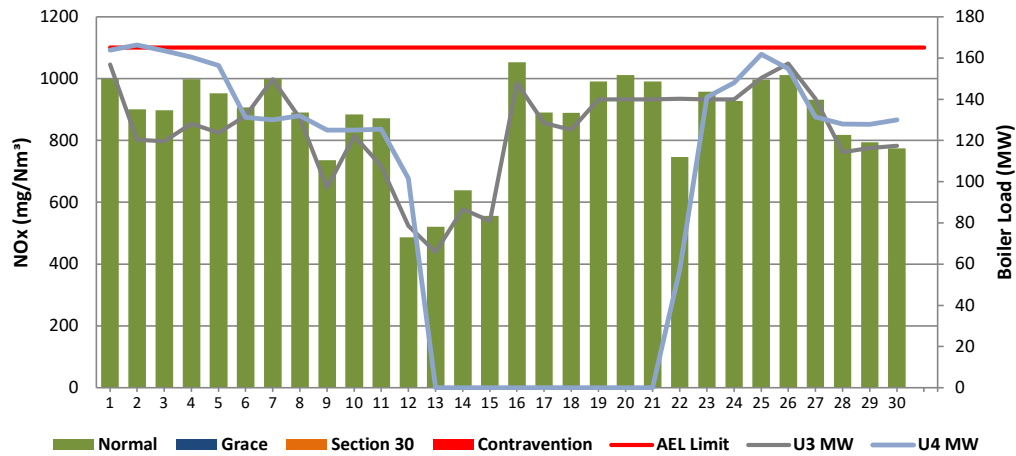


Figure 11: Camden Stack 3 NOx Emissions - November 2023

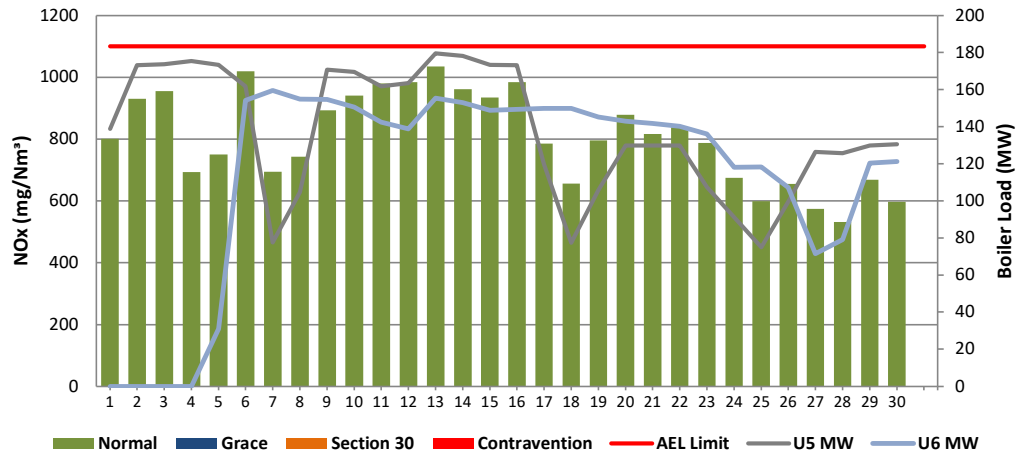
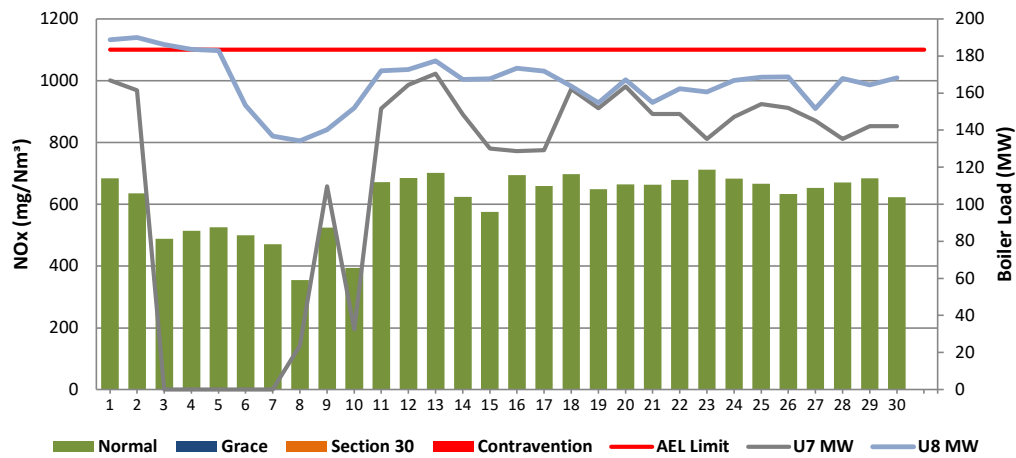


Figure 12: Camden Stack 4 NOx Emissions - November 2023



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



Engineering Manager

27/12/2023

Date



Environmental Manager

27/12/2023

Date

Compiled by: Environmental Department & verified by Boiler Eng

For: Department of Environment, Forestry & Fisheries

Copies: Eskom Environmental Management

Gx Compliance Management
Gx Asset Management

Camden Power Station:

Env. Practitioner & System Eng

Chief Air Pollution Control Officer

D Herbst
B Mccourt

R Rampiar
E Patel

Engineering Manager
Operating Manager
Maintenance Manager
Production Managers
Boiler Engineering Manager
System Engineer
Environmental Manager
Environmental Officer
P&T and Process Engineering Manager