

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 Apr-2023
	Coal	Tons	550 000	411 734.00
	Fuel Oil	Tons	5 000	3 693.01
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Apr-2023
	Energy	GWh	1600	723.36
	Ash	Tons	not specified	91 446
	RE PM	kg/MWh	not specified	0.351

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.70
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	22.21

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 Apr-2023
Unit 1	Fabric Filter Plant (FFP)	99.994%
Unit 2	Fabric Filter Plant (FFP)	99.995%
Unit 3	Fabric Filter Plant (FFP)	99.996%
Unit 4	Fabric Filter Plant (FFP)	99.997%
Unit 5	Fabric Filter Plant (FFP)	99.998%
Unit 6	Fabric Filter Plant (FFP)	99.999%
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	CO ₂	O ₂
Stack 1	100.0	99.3	99.3	0.0	0.0
Stack 2	100.0	96.8	99.9	0.0	0.0
Stack 3	100.0	99.6	99.5	0.0	0.0
Stack 4	100.0	99.9	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 April-2023

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
1	51.41	1 368	627
2	52.95	1 407	644
3	41.97	854	541
4	32.57	886	545
5	15.22	822	464
6	16.21	1 032	557
7	20.18	948	478
8	23.04	998	509
SUM	253.56	8 315	4 366

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)
Stack 1	27	3	0	0	3	68.9
Stack 2	28	2	0	0	2	65.1
Stack 3	30	0	0	0	0	25.9
Stack 4	30	0	0	0	0	30.9
SUM	115	5	0	0	5	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm ³)
Stack 1	30	0	0	0	0	1 762.5
Stack 2	30	0	0	0	0	1 404.6
Stack 3	30	0	0	0	0	1 464.6
Stack 4	30	0	0	0	0	1 241.9
SUM	120	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm ³)
Stack 1	30	0	0	0	0	806.7
Stack 2	30	0	0	0	0	865.6
Stack 3	30	0	0	0	0	786.2
Stack 4	30	0	0	0	0	633.1
SUM	120	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 - April 2023

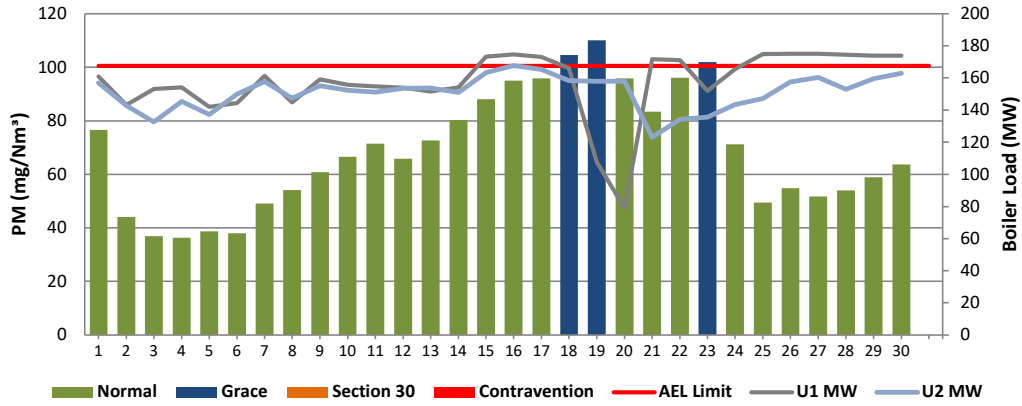


Figure 2: Camden Stack 2 PM Emissions - April 2023

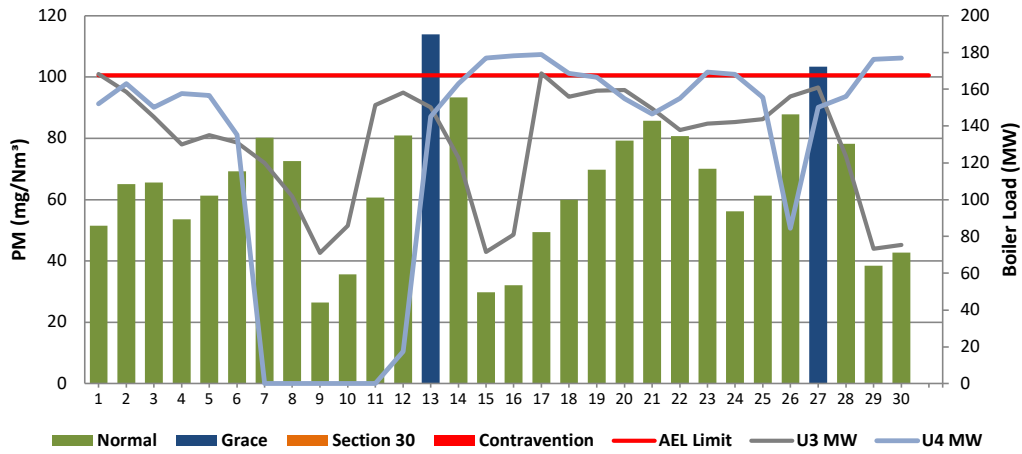


Figure 3: Camden Stack 3 PM Emissions - April 2023

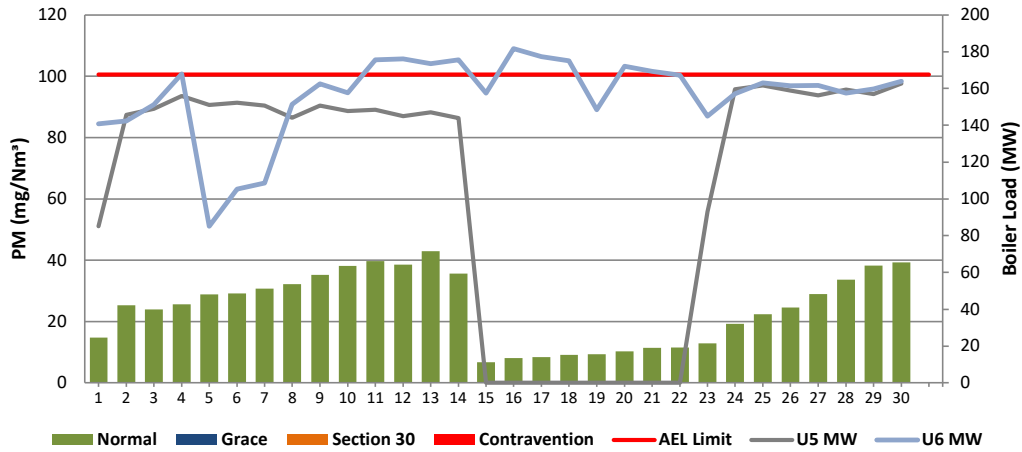


Figure 4: Camden Stack 4 PM Emissions - April 2023

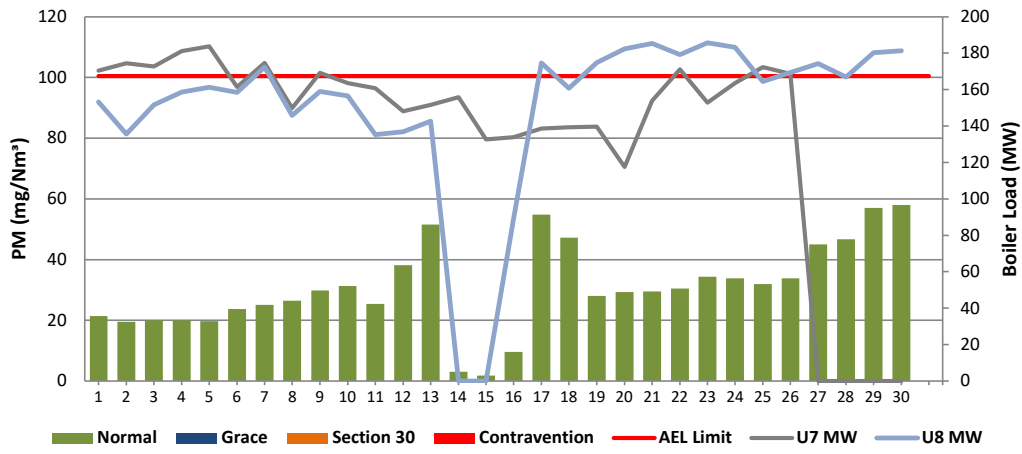


Figure 5: Camden Stack 1 SO₂ Emissions - April 2023

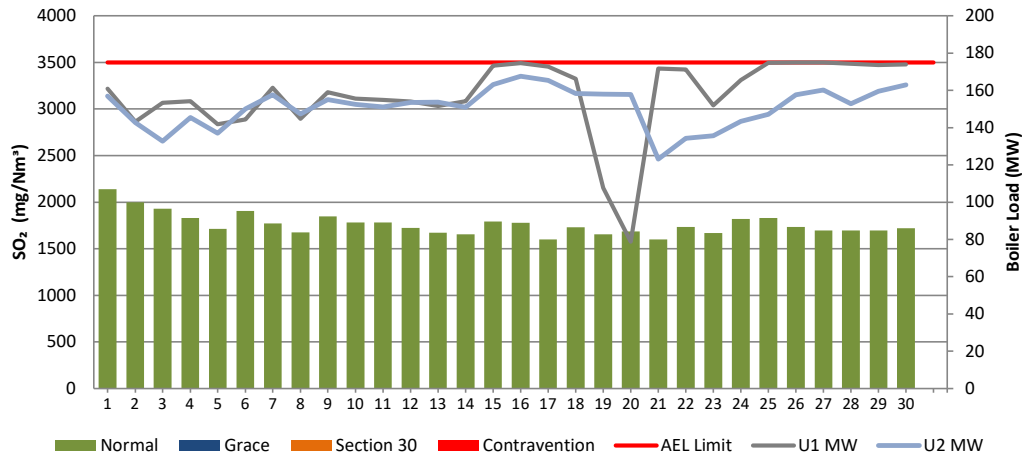


Figure 6: Camden Stack 2 SO₂ Emissions - April 2023

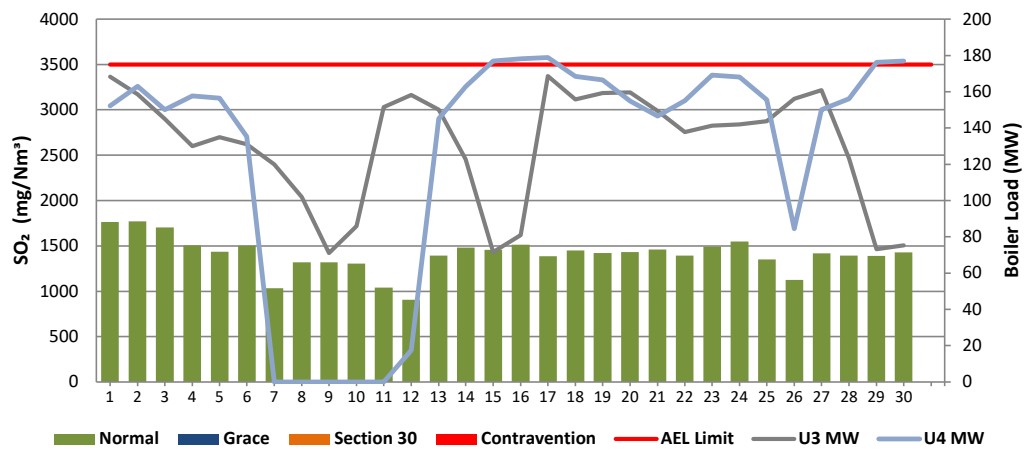


Figure 7: Camden Stack 3 SO₂ Emissions - April 2023

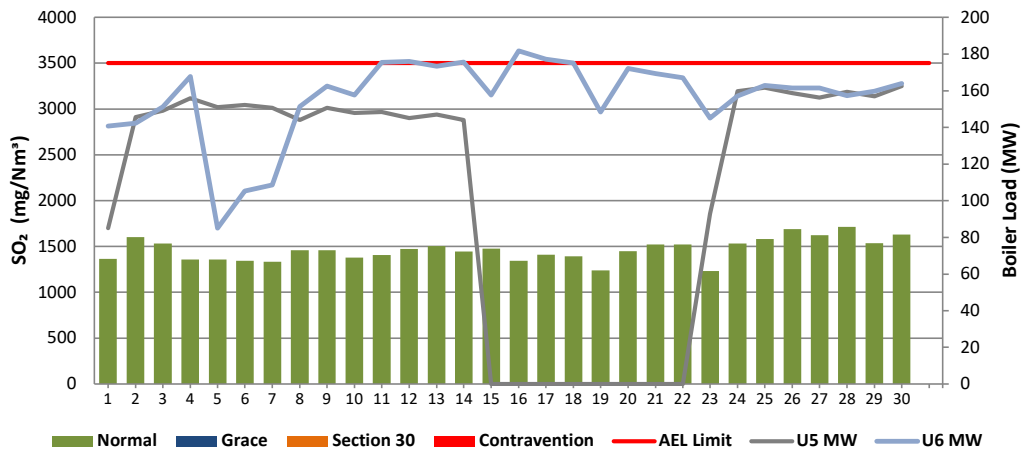


Figure 8: Camden Stack 4 SO₂ Emissions - April 2023

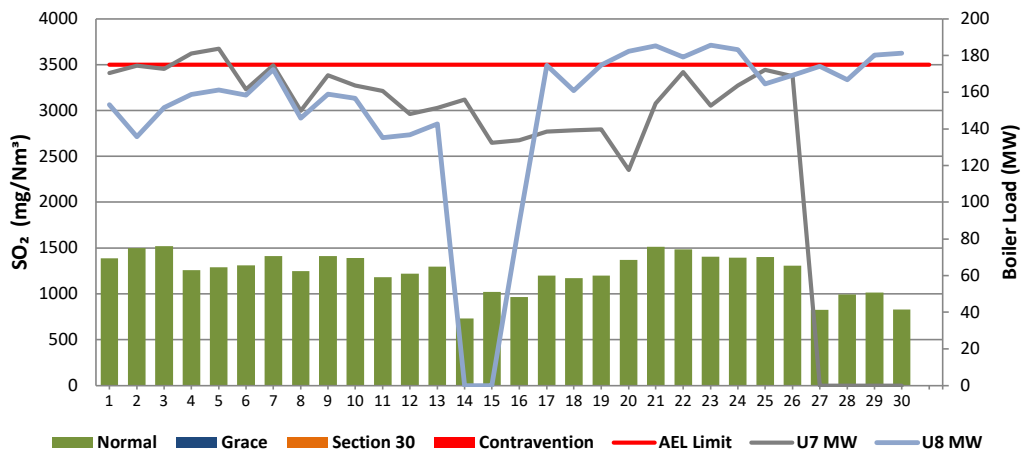


Figure 9: Camden Stack 1 NOx Emissions - April 2023

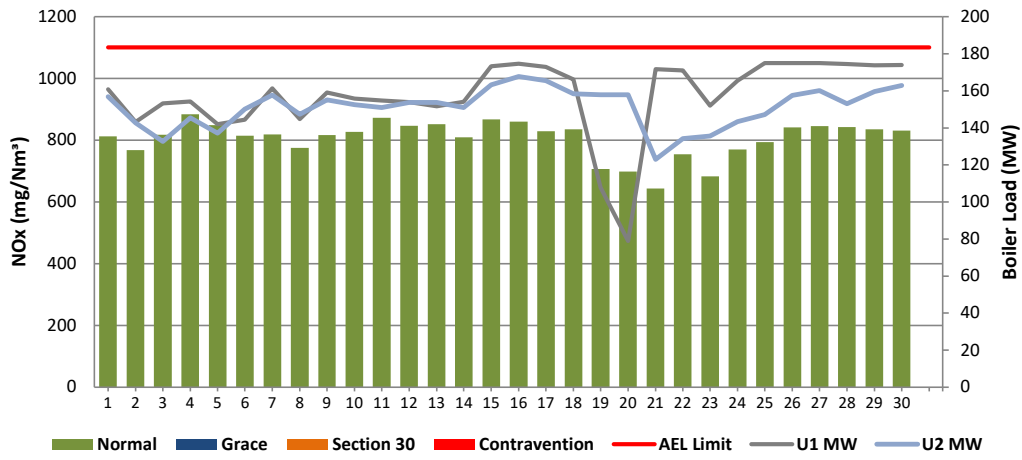


Figure 10: Camden Stack 2 NOx Emissions - April 2023

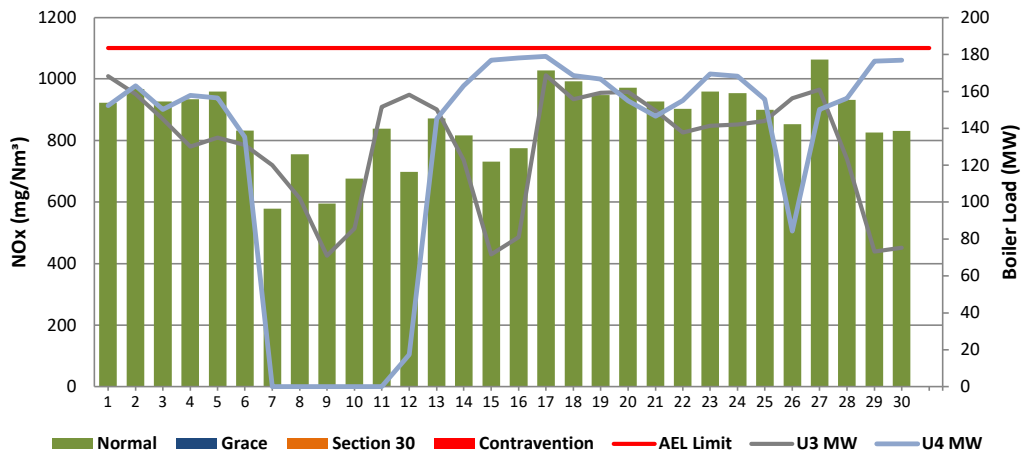


Figure 11: Camden Stack 3 NOx Emissions - April 2023

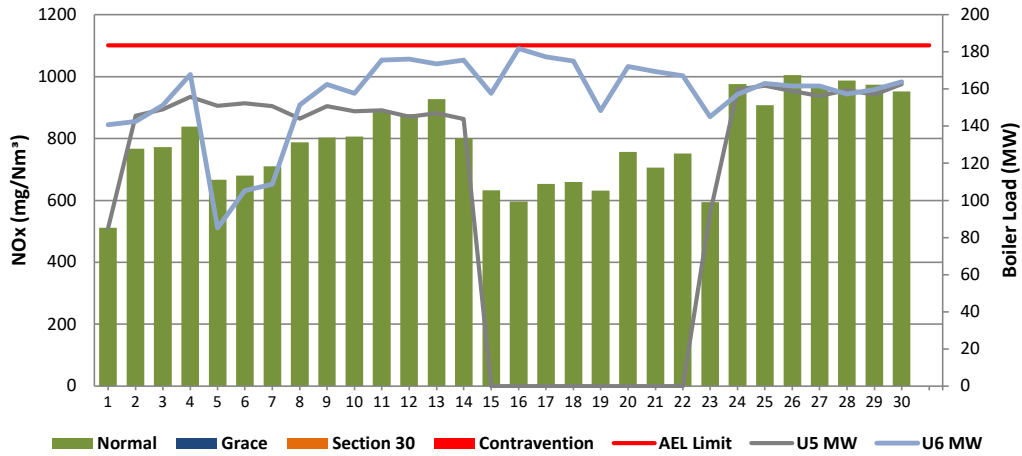
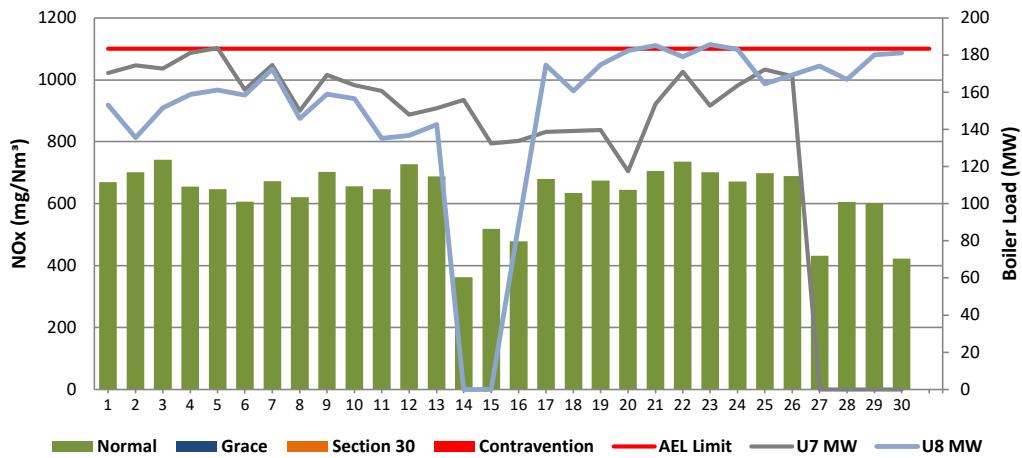


Figure 12: Camden Stack 4 NOx Emissions - April 2023



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	18/05/2023 _____ Date	 _____ Environmental Manager	19/05/2023 _____ Date
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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