

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 Oct-2021
	Coal	Tons	550 000	319 061,00
	Fuel Oil	Tons	5 000	4 623,81
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Oct-2021
	Energy	GWh	1600	465,14
	Ash	Tons	not specified	69 204
	RE PM	kg/MWh	not specified	0,088

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19,56	23,19
Sulphur Content	%	< 2	0,90
Ash Content	%	25 to 35	21,69

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SOx	NOx
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 Oct-2021
Unit 1	Fabric Filter Plant (FFP)	99,8%
Unit 2	Fabric Filter Plant (FFP)	99,94%
Unit 3	Fabric Filter Plant (FFP)	99,91%
Unit 4	Fabric Filter Plant (FFP)	99,87%
Unit 5	Fabric Filter Plant (FFP)	99,98%
Unit 6	Fabric Filter Plant (FFP)	99,98%
Unit 7	Fabric Filter Plant (FFP)	99,99%
Unit 8	Fabric Filter Plant (FFP)	99,99%

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	97,4	99,3	0,0	0,0
Stack 2	100,0	97,6	99,9	0,0	0,0
Stack 3	100,0	99,9	100,0	0,0	0,0
Stack 4	100,0	92,5	96,9	0,0	0,0

6 EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of October-2021

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	14,4	907	389	127 623
2	1,5	234	99	30 293
3	9,5	751	462	106 789
4	10,5	649	385	88 951
5	3,0	911	510	126 774
6	0,8	335	160	41 867
7	0,6	622	285	105 953
8	0,5	506	226	84 882
SUM	40,8	4 916	2 516	713 131

Table 6.2: Operating days in compliance to PM AEL Limit - October 2021

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	26	0	0	0	0	22,4
Stack 2	31	0	0	0	0	23,5
Stack 3	27	0	0	0	0	4,7
Stack 4	30	0	0	0	0	1,1
SUM	114	0	0	0	0	

Table 6.3: Operating days in compliance to SOx AEL Limit - October 2021

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
Stack 1	27	0	0	0	0	1 334,5
Stack 2	31	0	0	0	0	1 425,9
Stack 3	28	0	0	0	0	1 370,6
Stack 4	31	0	0	0	0	1 101,0
SUM	117	0	0	0	0	

Table 6.4: Operating days in compliance to NOx AEL Limit - October 2021

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Stack 1	27	0	0	0	0	572,5
Stack 2	31	0	0	0	0	876,7
Stack 3	28	0	0	0	0	762,5
Stack 4	31	0	0	0	0	495,0
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 - October 2021

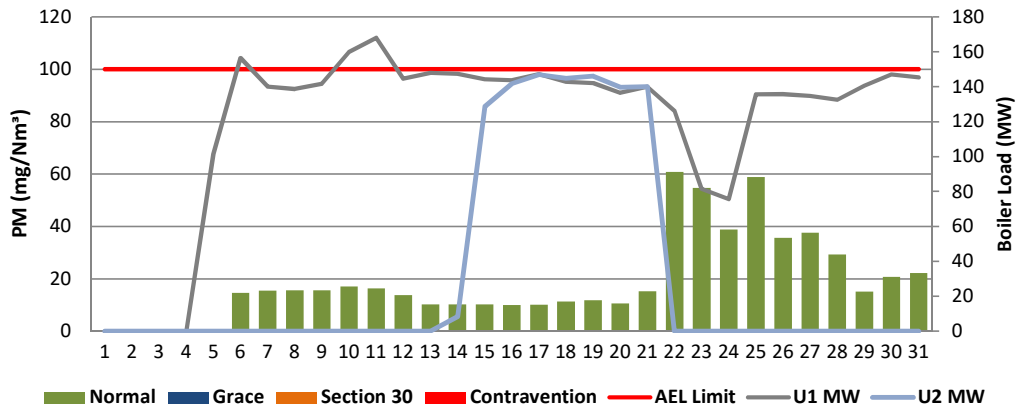


Figure 2: Camden Stack 2 PM Emissions - October 2021

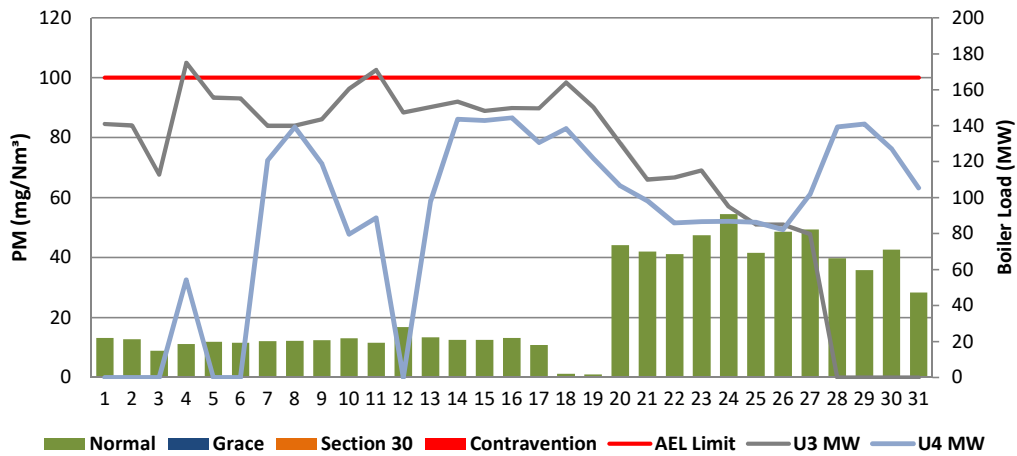


Figure 3: Camden Stack 3 PM Emissions - October 2021

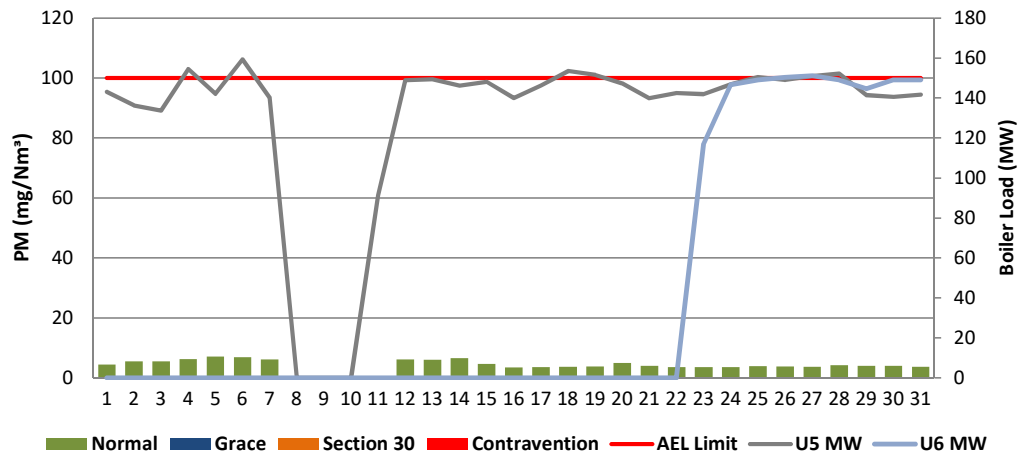


Figure 4: Camden Stack 4 PM Emissions - October 2021

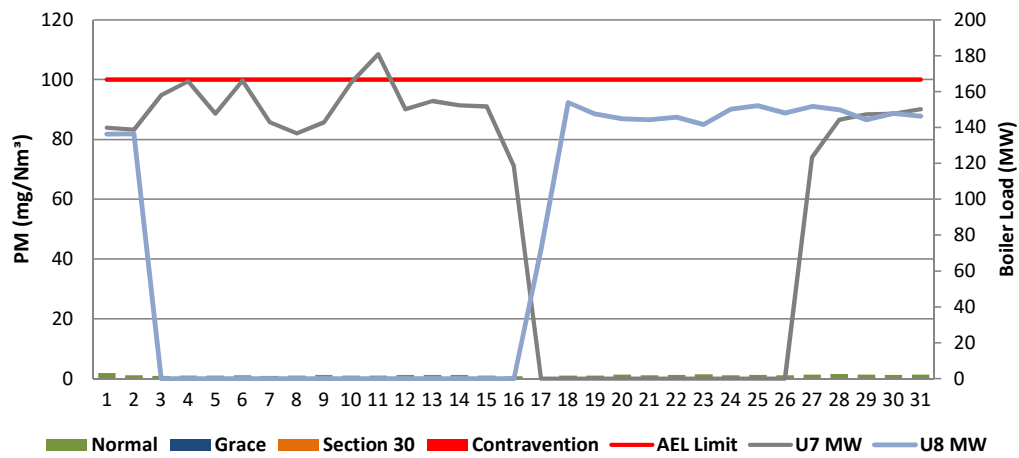


Figure 5: Camden Stack 1 SOx Emissions - October 2021

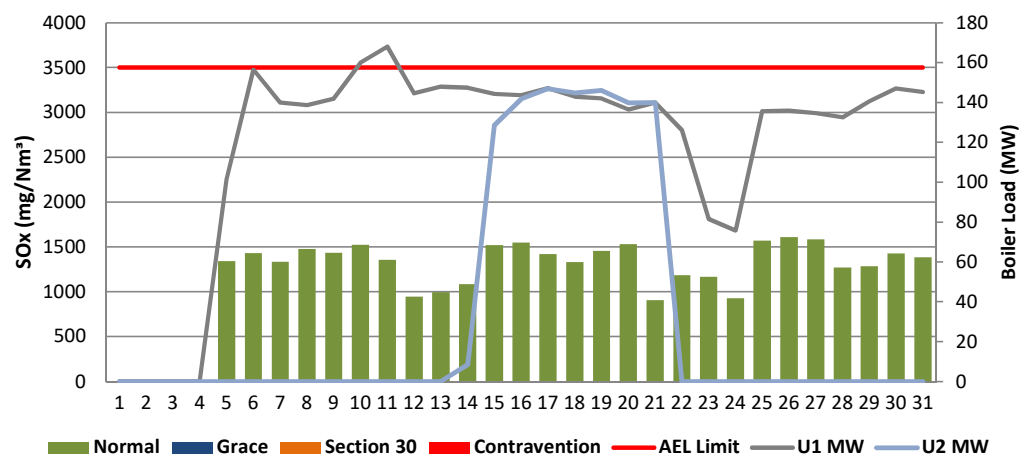


Figure 6: Camden Stack 2 SOx Emissions - October 2021

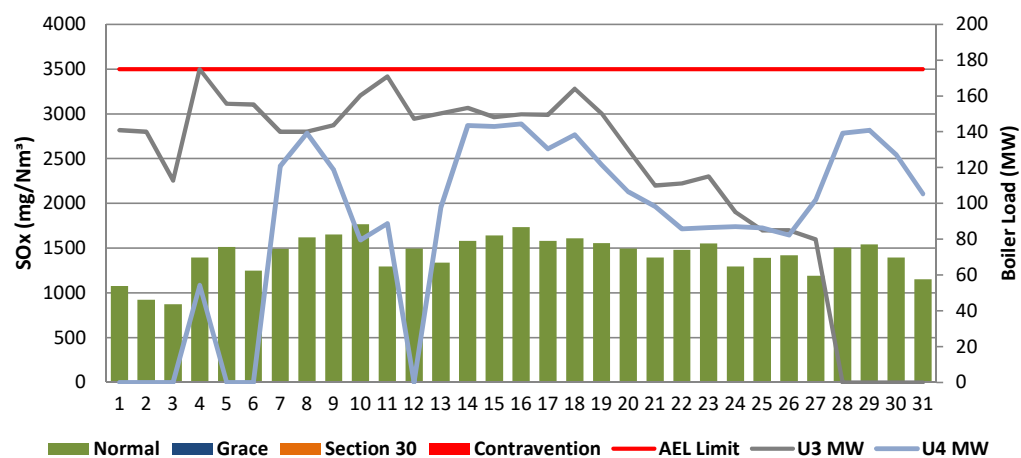


Figure 7: Camden Stack 3 SOx Emissions - October 2021

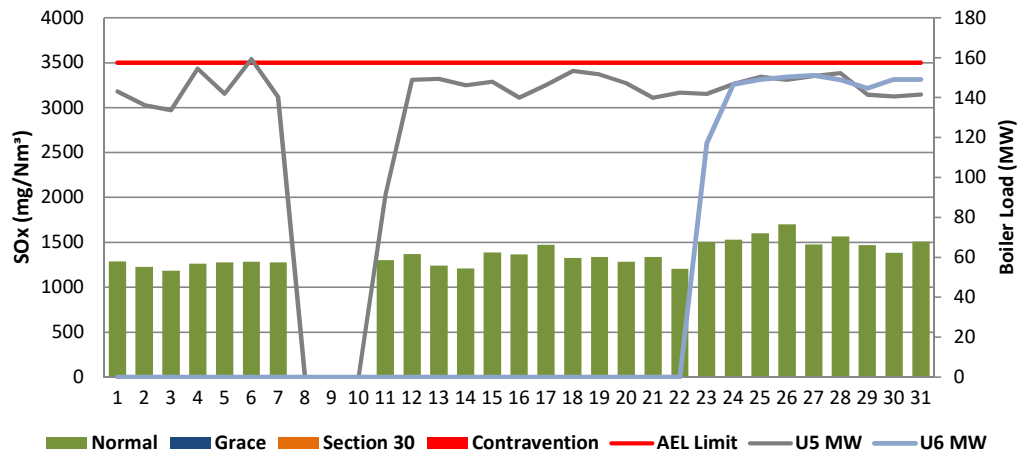


Figure 8: Camden Stack 4 SOx Emissions - October 2021

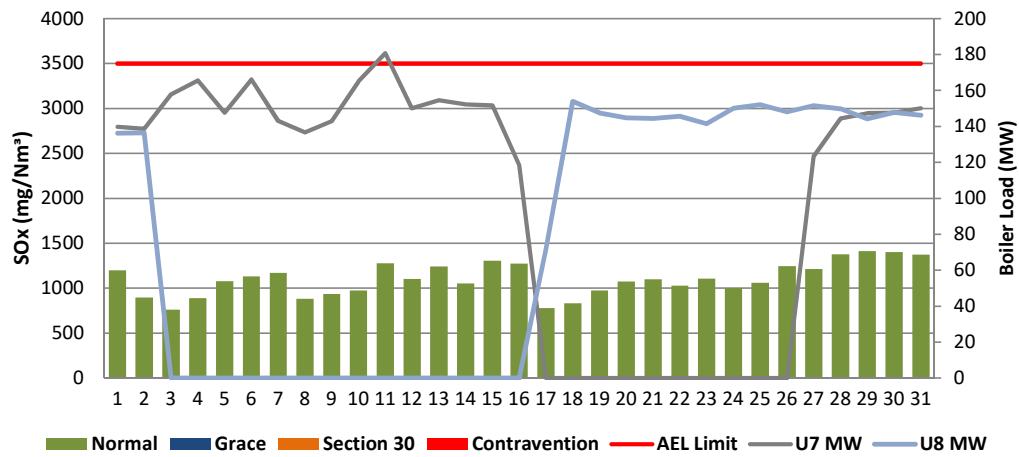


Figure 9: Camden Stack 1 NOx Emissions - October 2021

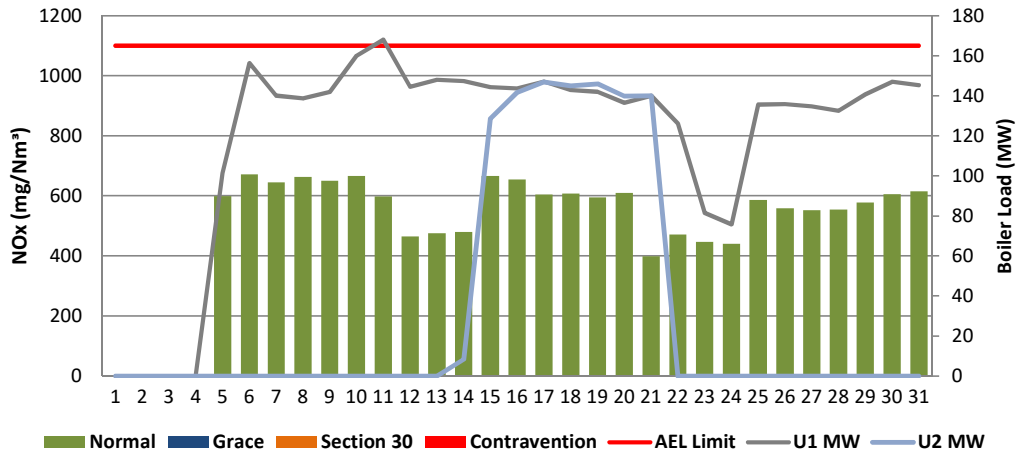


Figure 10: Camden Stack 2 NOx Emissions - October 2021

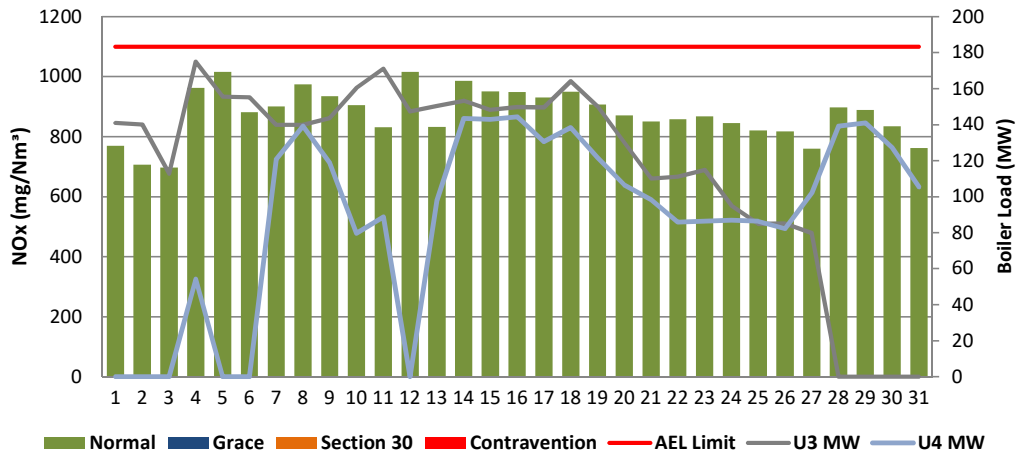


Figure 11: Camden Stack 3 NOx Emissions - October 2021

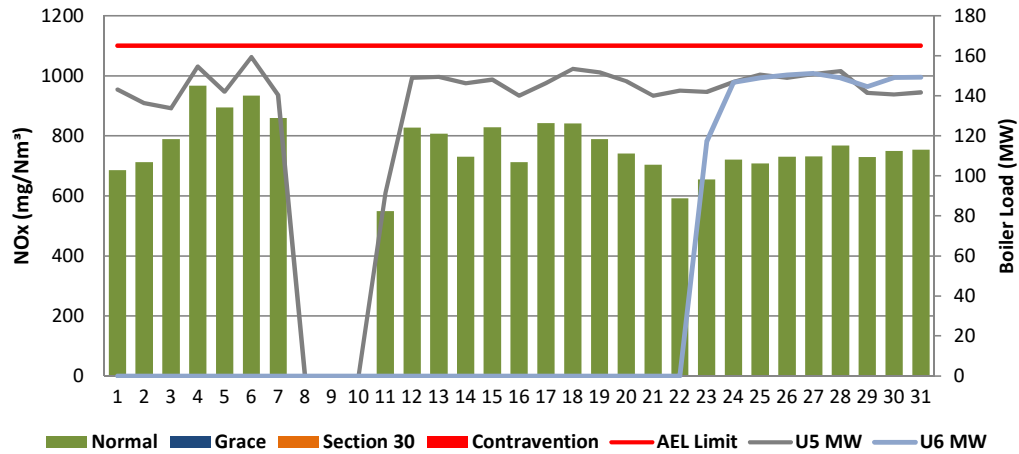
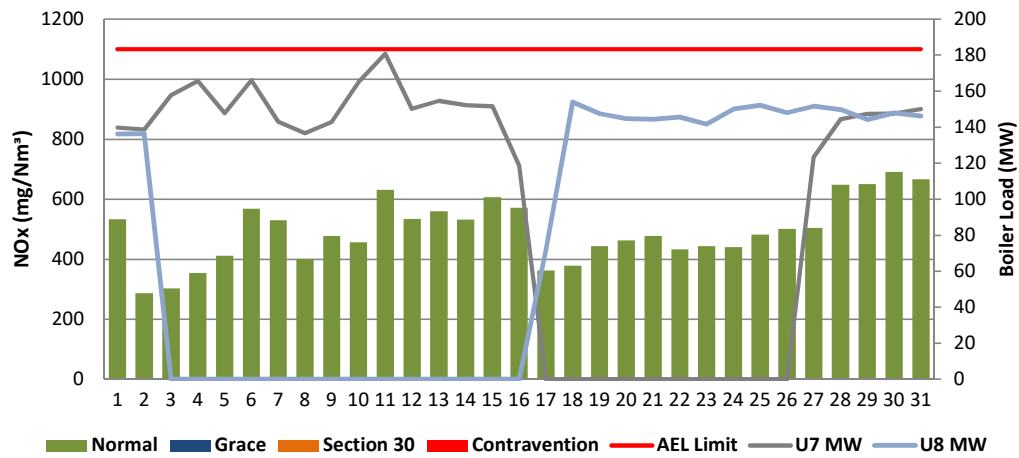


Figure 12: Camden Stack 4 NOx Emissions - October 2021



10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

None

Unit 6:

None

Unit 7:

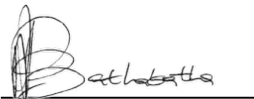
None

Unit 8:

None

General

As previously communicated, average value for the Stack 1 - 4 O2 and CO2 from the QAL 2 tests are used.



Engineering Manager

25/11/2021

Date



Environmental Manager

24.11.2021

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