

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 May-2021
	Coal	Tons	550 000	405 238,00
	Fuel Oil	Tons	5 000	4 636,93
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production May-2021
	Energy	GWh	1600	556,05
	Ash	Tons	not specified	97 338
	RE PM	kg/MWh	not specified	0,120

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19,56	22,00
Sulphur Content	%	< 2	0,90
Ash Content	%	25 to 35	24,02

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SO _x	NO _x
Stack 1	50	3500	1100
Stack 2	50	3500	1100
Stack 3	50	3500	1100
Stack 4	50	3500	1100

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency May-2021
Unit 1	Fabric Filter Plant (FFP)	99,9%
Unit 2	Fabric Filter Plant (FFP)	99,90%
Unit 3	Fabric Filter Plant (FFP)	99,89%
Unit 4	Fabric Filter Plant (FFP)	99,89%
Unit 5	Fabric Filter Plant (FFP)	99,99%
Unit 6	Fabric Filter Plant (FFP)	Unit Off-line
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	83,7	84,4	100,0	100,0
Stack 2	99,9	99,6	99,6	99,9	99,9
Stack 3	100,0	97,7	98,9	100,0	100,0
Stack 4	100,0	94,3	97,4	100,0	100,0

6 EMISSION PERFORMANCE

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

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	14,6	1 355	537	153 754
2	12,6	1 205	479	134 295
3	19,2	1 199	681	143 761
4	16,3	1 097	624	131 246
5	1,4	663	358	92 790
6	0,0	0	0	0
7	1,0	545	289	81 010
8	1,3	712	366	115 753
SUM	66,5	6 776	3 334	852 608

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	31	0	0	0	0	18,0
Stack 2	31	0	0	0	0	28,3
Stack 3	20	0	0	0	0	3,7
Stack 4	30	0	0	0	0	2,7
SUM	112	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
Stack 1	31	0	0	0	0	1 667,0
Stack 2	31	0	0	0	0	1 715,3
Stack 3	22	0	0	0	0	1 355,2
Stack 4	31	0	0	0	0	1 163,5
SUM	115	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Stack 1	31	0	0	0	0	660,1
Stack 2	31	0	0	0	0	974,2
Stack 3	22	0	0	0	0	728,6
Stack 4	31	0	0	0	0	603,0
SUM	115	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 - May 2021

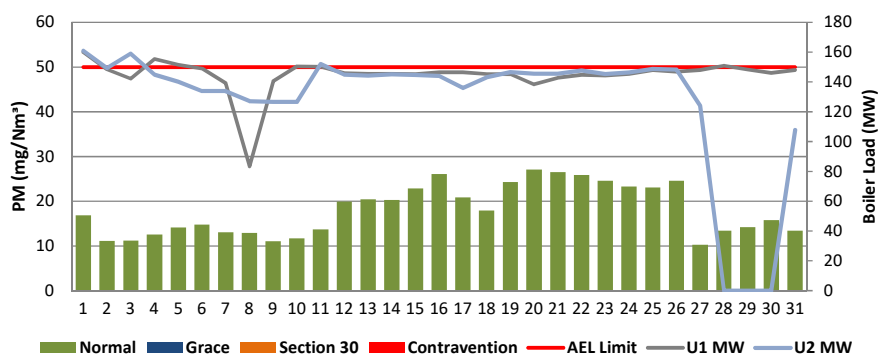


Figure 2: Camden Stack 2 PM Emissions - May 2021

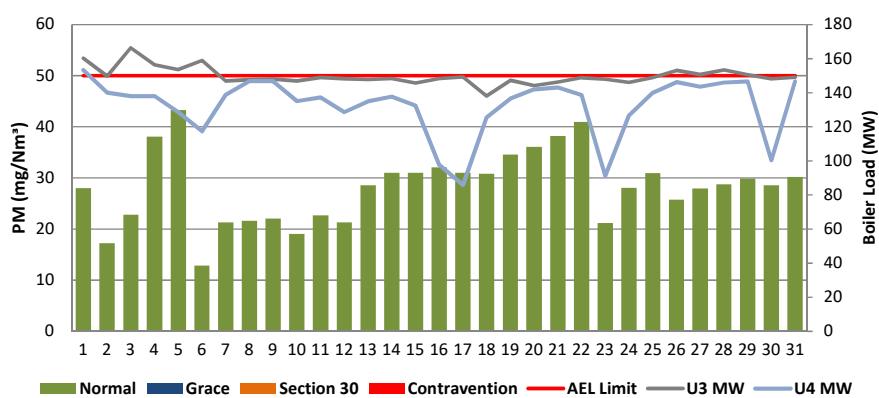


Figure 3: Camden Stack 3 PM Emissions - May 2021

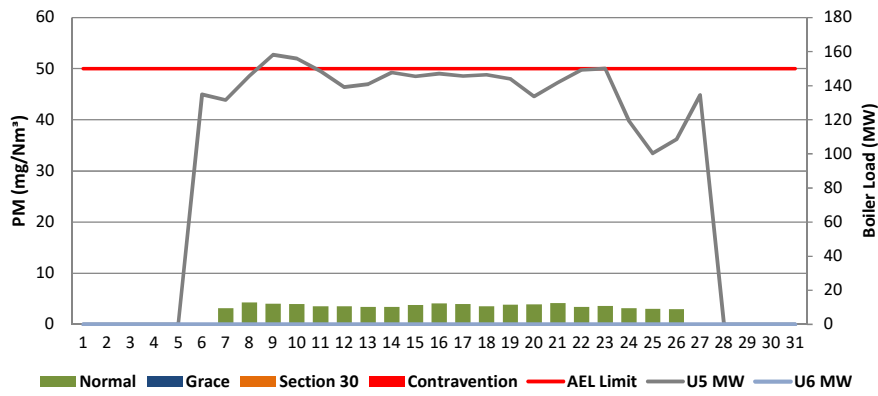


Figure 4: Camden Stack 4 PM Emissions - May 2021

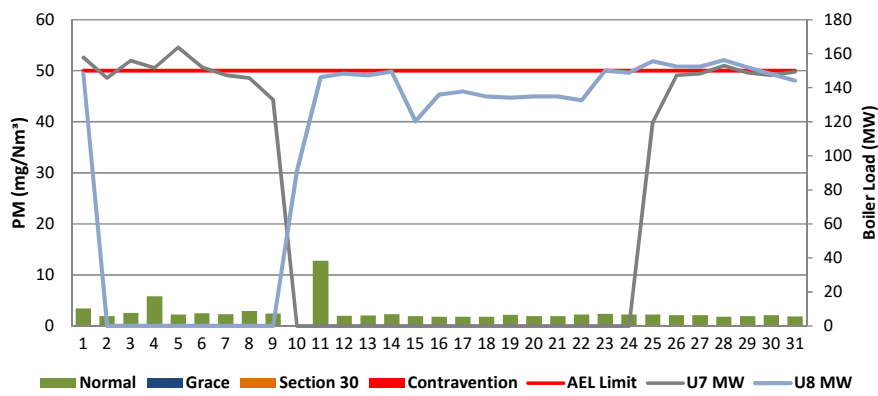


Figure 5: Camden Stack 1 SOx Emissions - May 2021

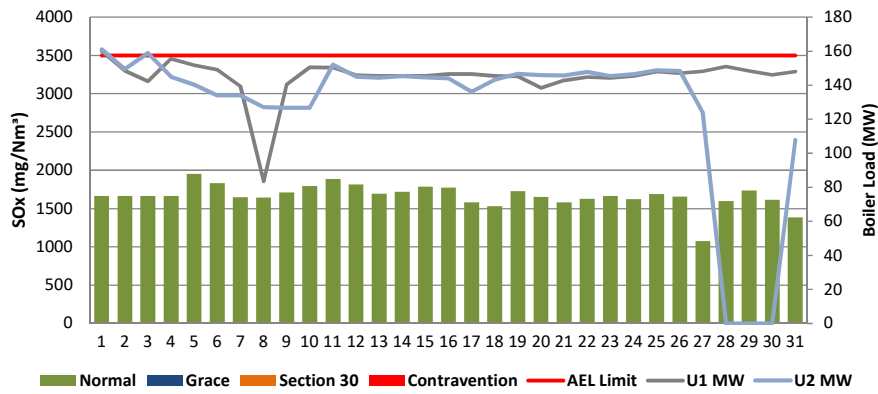


Figure 6: Camden Stack 2 SOx Emissions - May 2021

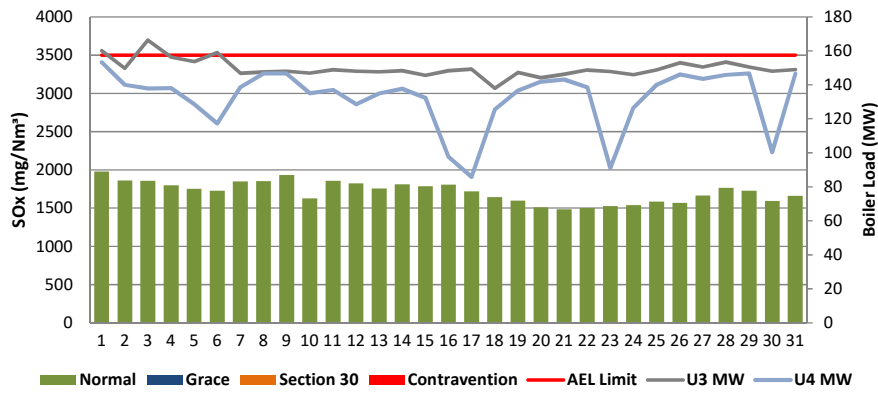


Figure 7: Camden Stack 3 SOx Emissions - May 2021

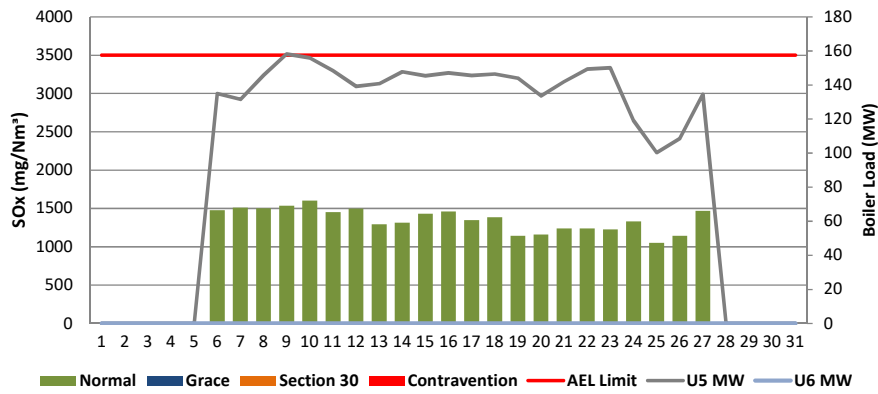


Figure 8: Camden Stack 4 SOx Emissions - May 2021

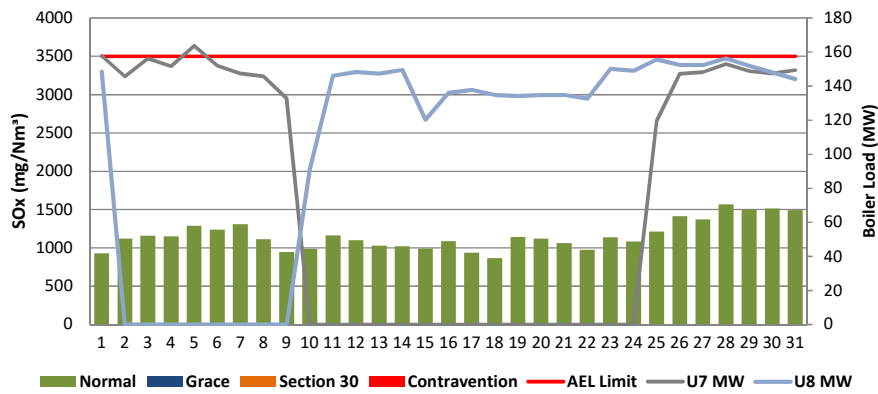


Figure 9: Camden Stack 1 NOx Emissions - May 2021

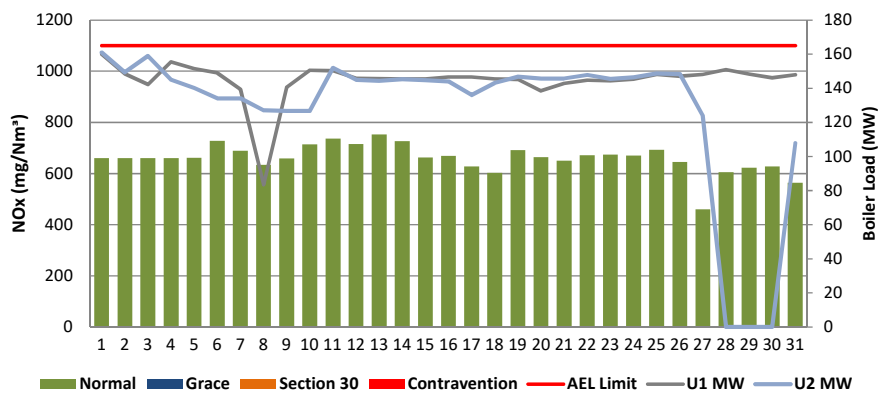


Figure 10: Camden Stack 2 NOx Emissions - May 2021

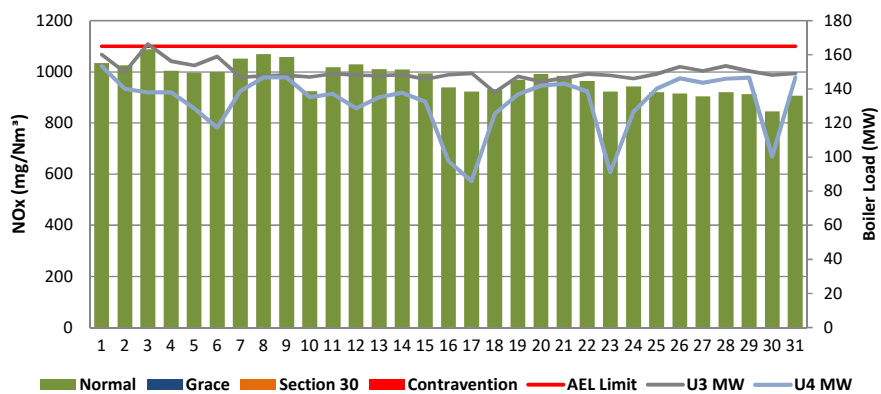


Figure 11: Camden Stack 3 NOx Emissions - May 2021

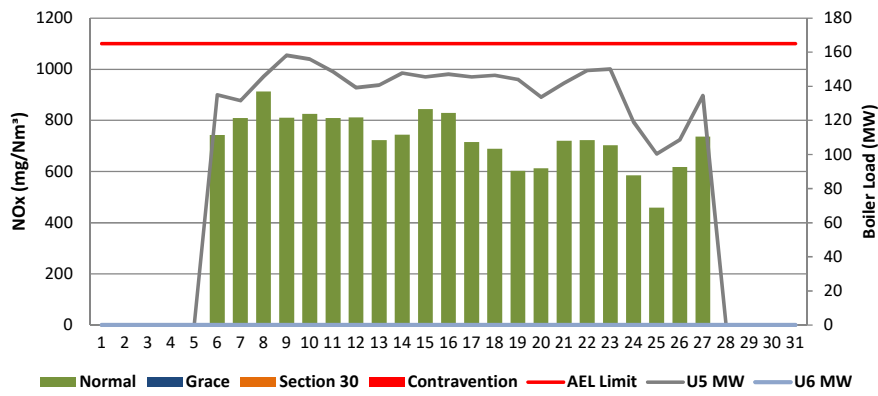
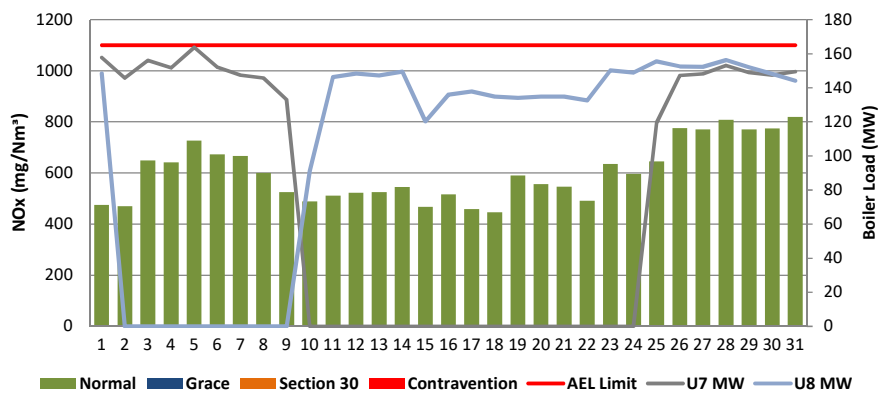


Figure 12: Camden Stack 4 NOx Emissions - May 2021



10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

None

Unit 6:

The unit was off-load for the month.

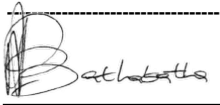
Unit 7:

None

Unit 8:

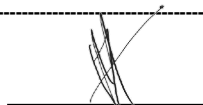
None

As previously mentioned last month, there were drift issues experienced on all stack gas monitors which resulted in the O2 and CO2 readings being inaccurate. In the interim, the average O2 and CO2 values from the monitors recorded during the Correlation and QAL2 tests will be used until such time that the monitors are properly serviced and calibrated and the QAL2 tests can be redone.



Engineering Manager

29/06/2021
Date



Environmental Manager

29/06/2021
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