

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 Jun-2021
	Coal	Tons	550 000	369 940,32
	Fuel Oil	Tons	5 000	2 610,48
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Jun-2021
	Energy	GWh	1600	579,49
	Ash	Tons	not specified	85 160
	RE PM	kg/MWh	not specified	0,111

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19,56	22,64
Sulphur Content	%	< 2	0,90
Ash Content	%	25 to 35	23,02

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SO _x	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 Jun-2021
Unit 1	Fabric Filter Plant (FFP)	99,8%
Unit 2	Fabric Filter Plant (FFP)	99,85%
Unit 3	Fabric Filter Plant (FFP)	99,90%
Unit 4	Fabric Filter Plant (FFP)	99,89%
Unit 5	Fabric Filter Plant (FFP)	99,98%
Unit 6	Fabric Filter Plant (FFP)	Unit Off-line
Unit 7	Fabric Filter Plant (FFP)	99,98%
Unit 8	Fabric Filter Plant (FFP)	99,98%

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	99,0	100,0	0,0	0,0
Stack 2	100,0	98,1	100,0	0,0	0,0
Stack 3	100,0	91,5	99,0	0,0	0,0
Stack 4	100,0	95,7	98,4	0,0	0,0

6 EMISSION PERFORMANCE

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

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	19,9	1 204	483	148 415
2	16,5	1 134	453	138 199
3	10,5	787	470	103 608
4	12,5	794	491	109 929
5	1,8	599	317	104 270
6	0,0	10	5	1 957
7	1,6	841	484	127 591
8	1,9	995	576	159 073
SUM	64,6	6 364	3 278	893 043

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	30	0	0	0	0	25,2
Stack 2	30	0	0	0	0	21,6
Stack 3	24	0	0	0	0	3,3
Stack 4	29	0	0	0	0	2,4
SUM	113	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
Stack 1	30	0	0	0	0	1 530,8
Stack 2	30	0	0	0	0	1 494,3
Stack 3	26	0	0	0	0	1 037,0
Stack 4	30	0	0	0	0	1 197,4
SUM	116	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Stack 1	30	0	0	0	0	613,8
Stack 2	30	0	0	0	0	906,7
Stack 3	26	0	0	0	0	544,5
Stack 4	30	0	0	0	0	691,4
SUM	116	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 - June 2021

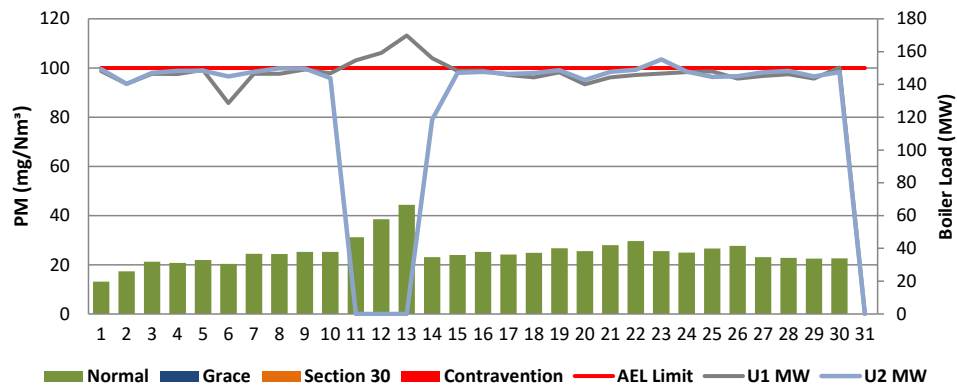


Figure 2: Camden Stack 2 PM Emissions - June 2021

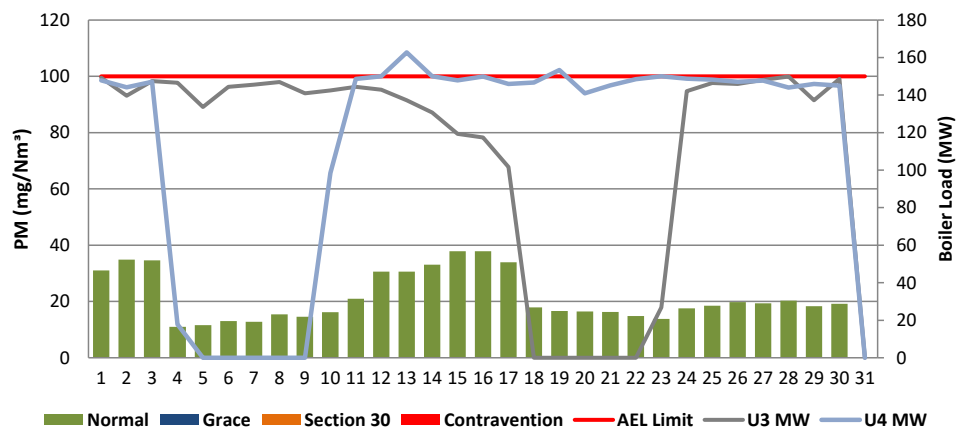


Figure 3: Camden Stack 3 PM Emissions - June 2021

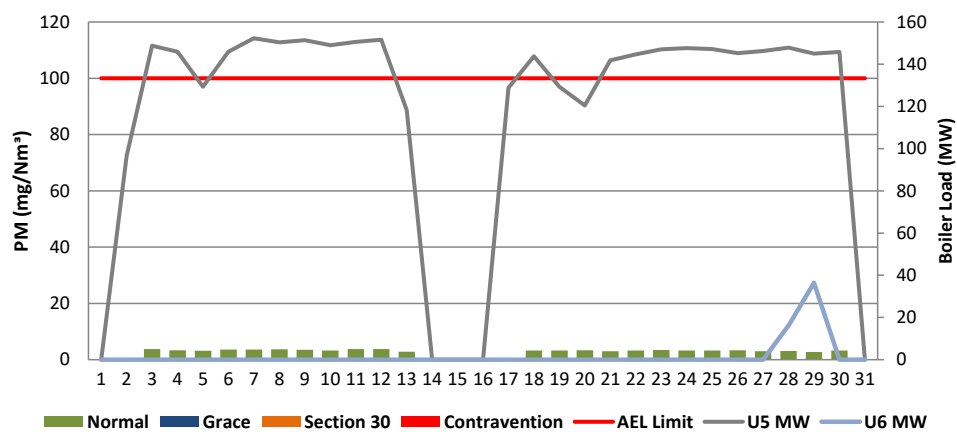


Figure 4: Camden Stack 4 PM Emissions - June 2021

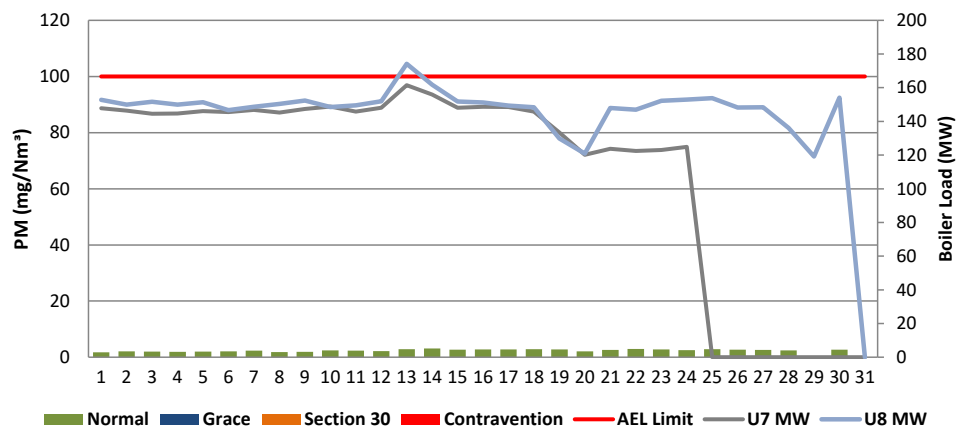


Figure 5: Camden Stack 1 SOx Emissions - June 2021

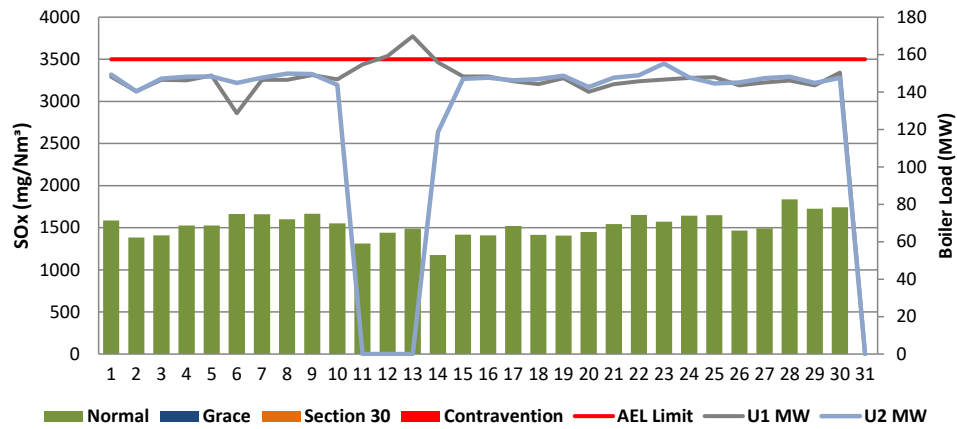


Figure 6: Camden Stack 2 SOx Emissions - June 2021

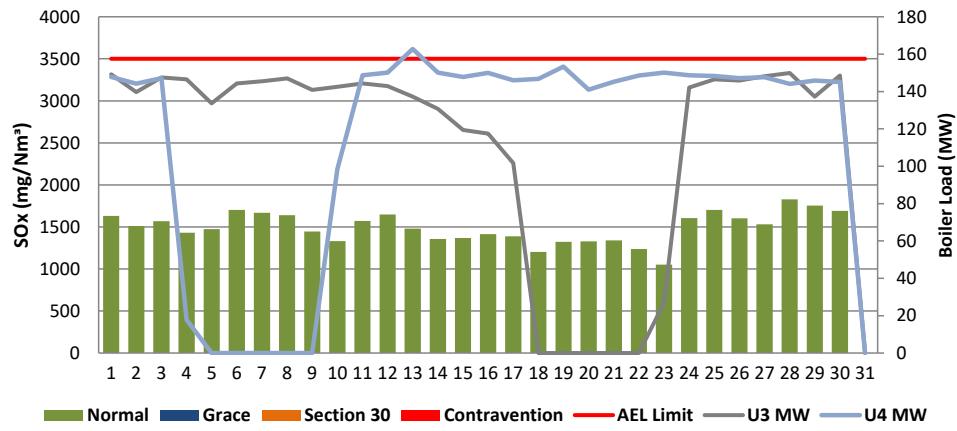


Figure 7: Camden Stack 3 SOx Emissions - June 2021

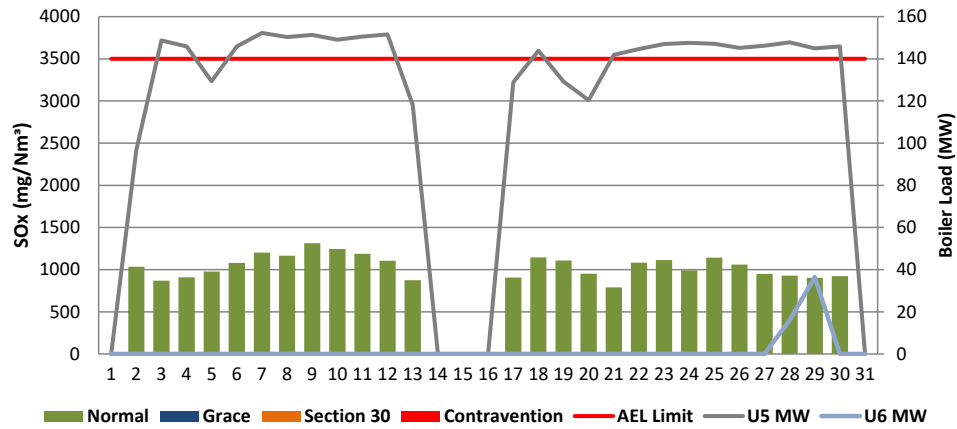


Figure 8: Camden Stack 4 SOx Emissions - June 2021

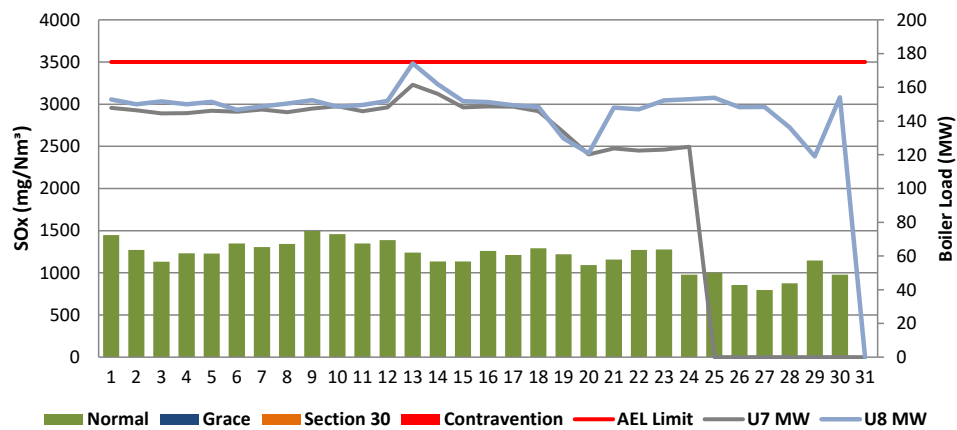


Figure 9: Camden Stack 1 NOx Emissions - June 2021

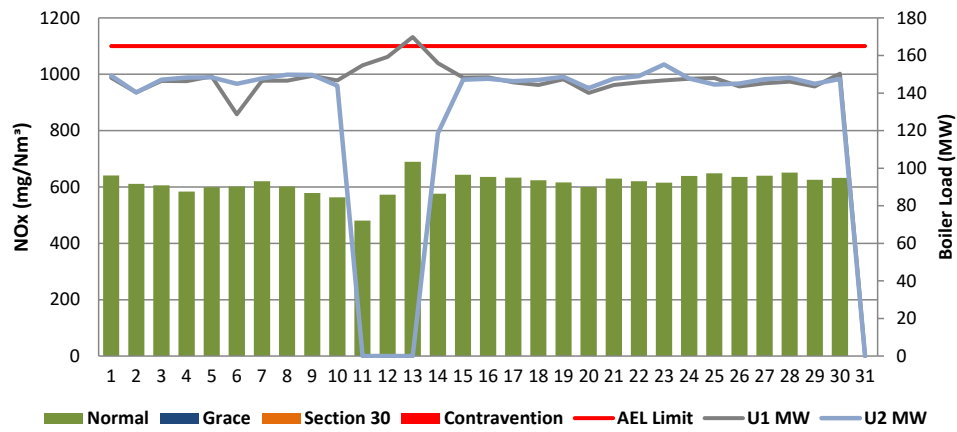


Figure 10: Camden Stack 2 NOx Emissions - June 2021

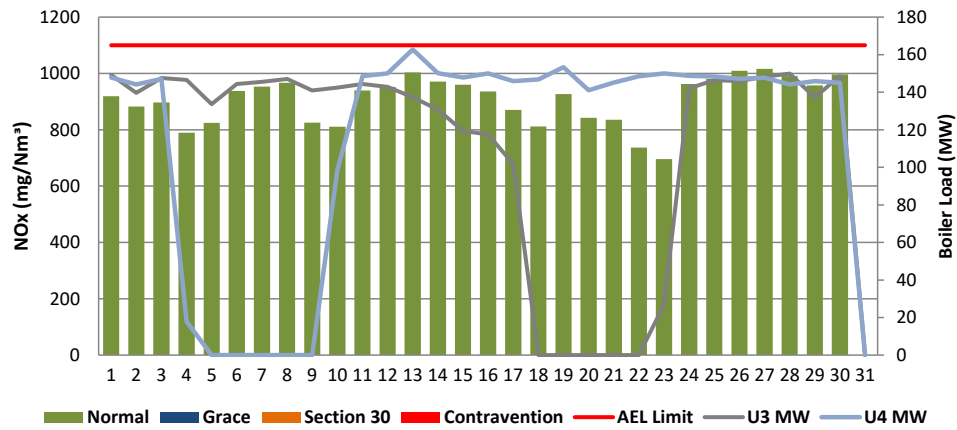


Figure 11: Camden Stack 3 NOx Emissions - June 2021

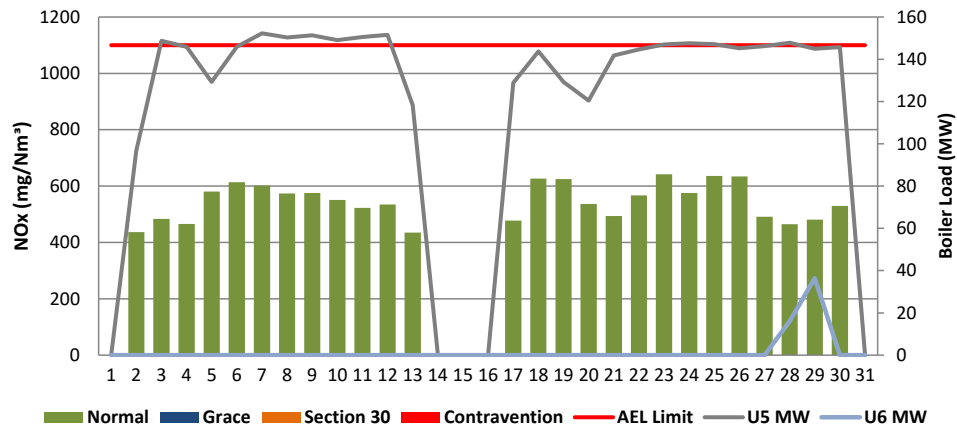
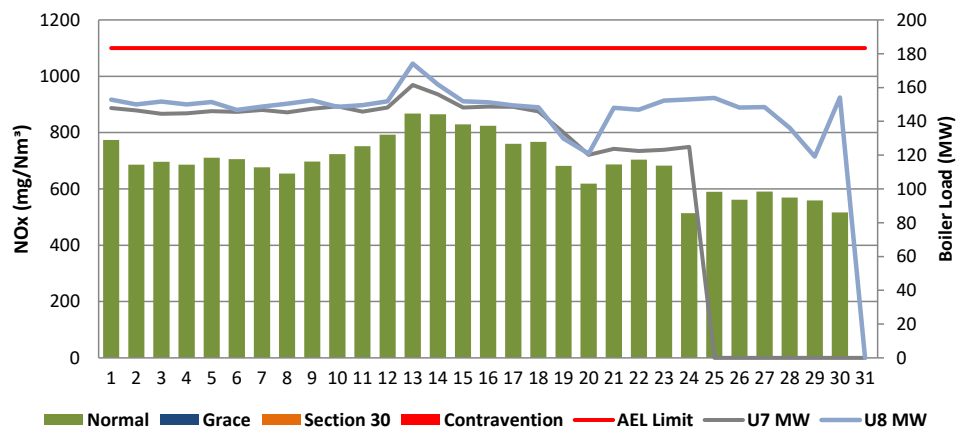


Figure 12: Camden Stack 4 NOx Emissions - June 2021



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 most of the month. Return to service activities commenced on the 28th June but was shutdown on the 29th June.

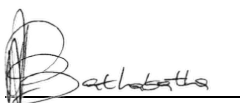
Unit 7:

None

Unit 8:

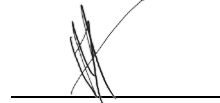
None

As previously communicated, average values for Stack 1-4 O₂ and CO₂ from the QAL2 tests were used again for this month.


Engineering Manager

19/07/2021

Date


Environmental Manager

2021/07/19

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