

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 Jul-2021
	Coal	Tons	550 000	372 059,00
	Fuel Oil	Tons	5 000	2 641,96
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Jul 2021
	Energy	GWh	1600	580,94
	Ash	Tons	not specified	90 708
	RE PM	kg/MWh	not specified	0,109

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19,56	22,79
Sulphur Content	%	< 2	0,90
Ash Content	%	25 to 35	24,38

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 Jul-2021
Unit 1	Fabric Filter Plant (FFP)	99,8%
Unit 2	Fabric Filter Plant (FFP)	99,88%
Unit 3	Fabric Filter Plant (FFP)	99,90%
Unit 4	Fabric Filter Plant (FFP)	99,88%
Unit 5	Fabric Filter Plant (FFP)	99,98%
Unit 6	Fabric Filter Plant (FFP)	99,98%
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	98,0	99,5	0,0	0,0
Stack 2	100,0	98,8	100,0	0,0	0,0
Stack 3	100,0	96,9	99,5	0,0	0,0
Stack 4	100,0	97,8	98,7	0,0	0,0

6 EMISSION PERFORMANCE

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

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	14,5	944	338	111 393
2	12,5	1 071	398	129 650
3	11,9	779	465	97 606
4	18,4	1 121	678	145 627
5	1,4	506	259	82 607
6	0,8	261	126	39 914
7	1,6	860	449	114 489
8	2,4	1 162	598	167 915
SUM	63,6	6 704	3 310	889 200

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	31	0	0	0	0	19,9
Stack 2	31	0	0	0	0	26,0
Stack 3	23	0	0	0	0	3,6
Stack 4	31	0	0	0	0	2,7
SUM	116	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
Stack 1	31	0	0	0	0	1 546,4
Stack 2	31	0	0	0	0	1 576,7
Stack 3	24	0	0	0	0	1 154,7
Stack 4	31	0	0	0	0	1 330,3
SUM	117	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Stack 1	31	0	0	0	0	569,2
Stack 2	31	0	0	0	0	953,8
Stack 3	24	0	0	0	0	560,8
Stack 4	31	0	0	0	0	684,1
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 - July 2021

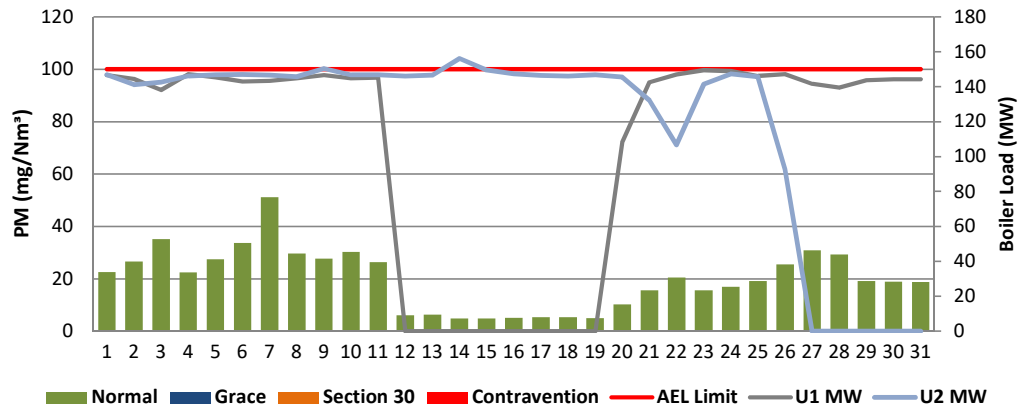


Figure 2: Camden Stack 2 PM Emissions - July 2021

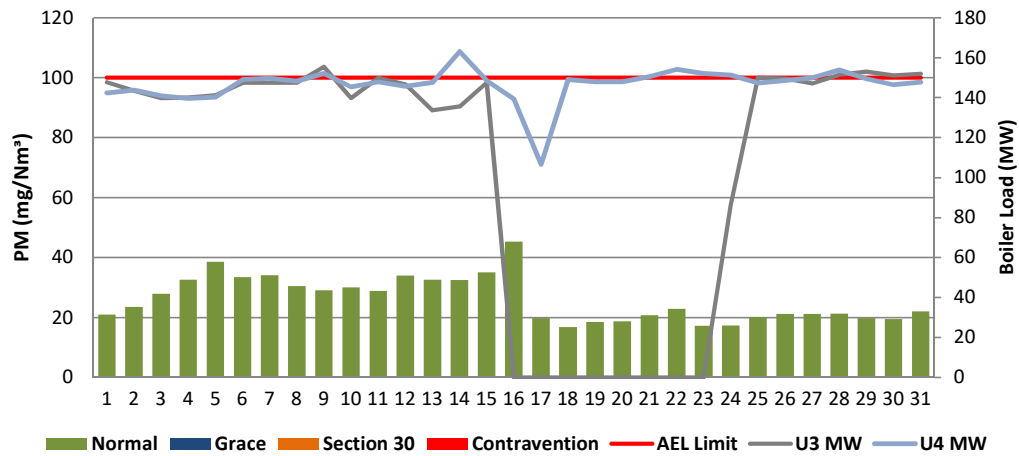


Figure 3: Camden Stack 3 PM Emissions - July 2021

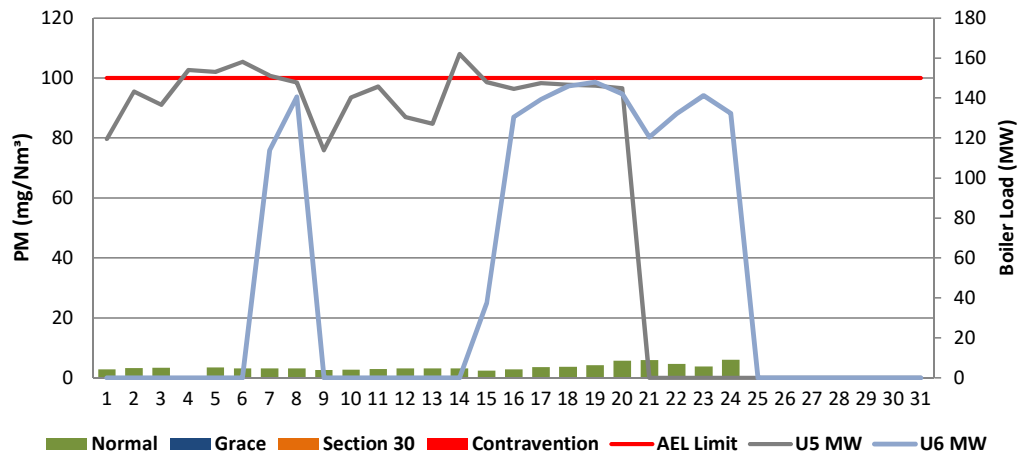


Figure 4: Camden Stack 4 PM Emissions - July 2021

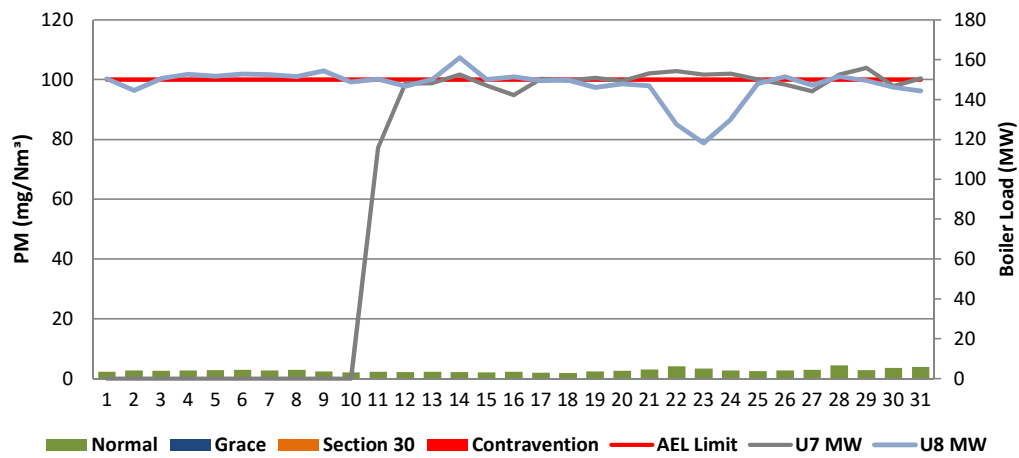


Figure 5: Camden Stack 1 SOx Emissions - July 2021

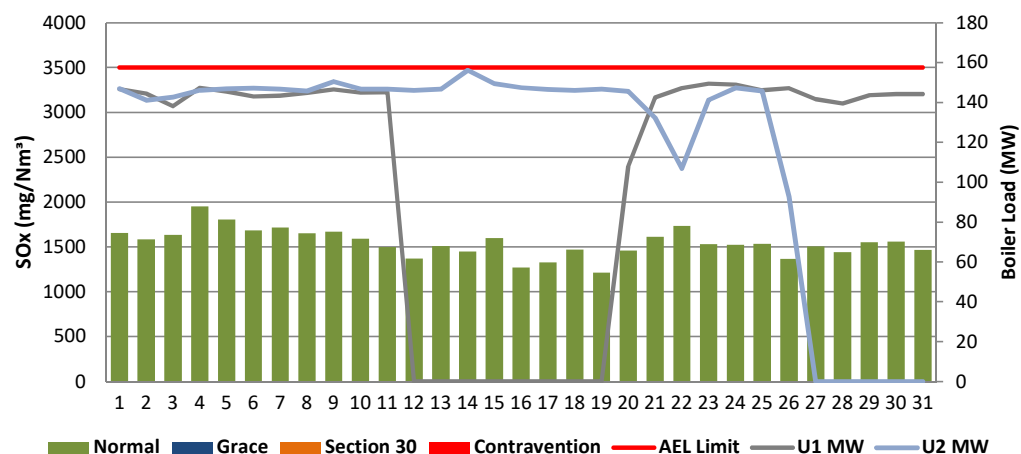


Figure 6: Camden Stack 2 SOx Emissions - July 2021

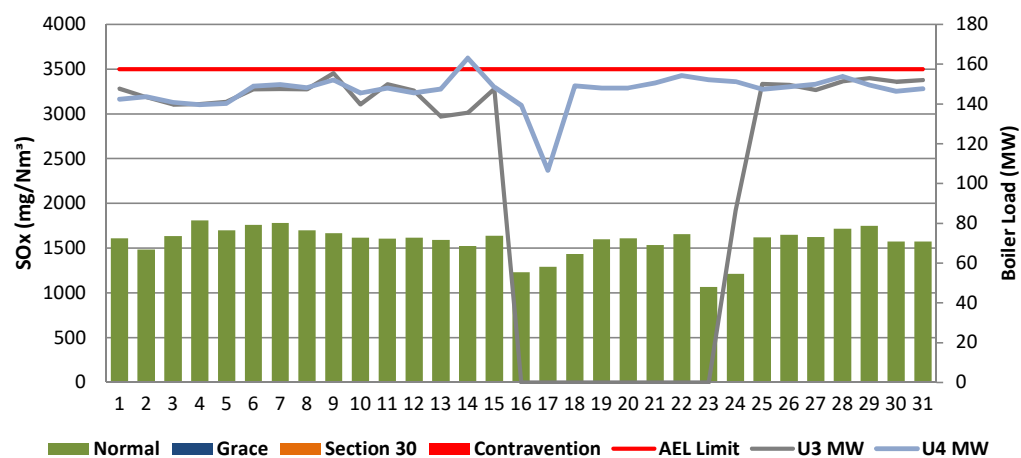


Figure 7: Camden Stack 3 SOx Emissions - July 2021

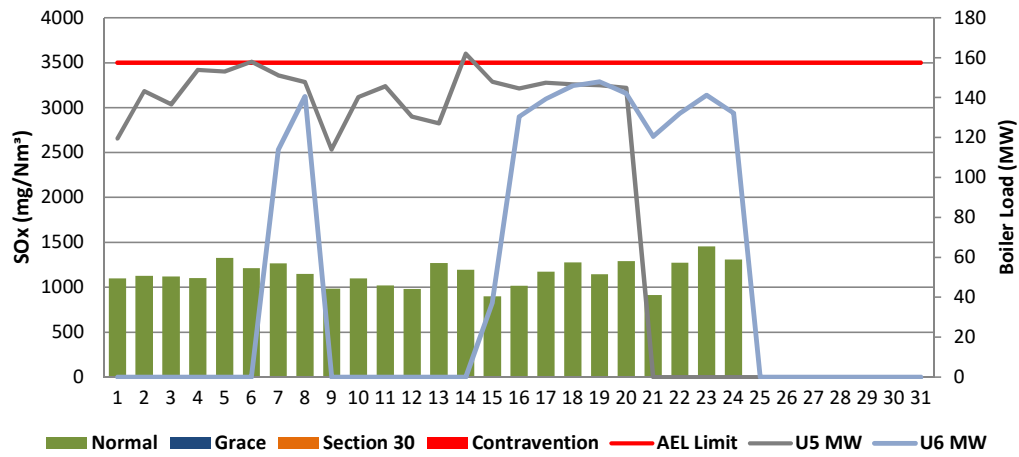


Figure 8: Camden Stack 4 SOx Emissions - July 2021

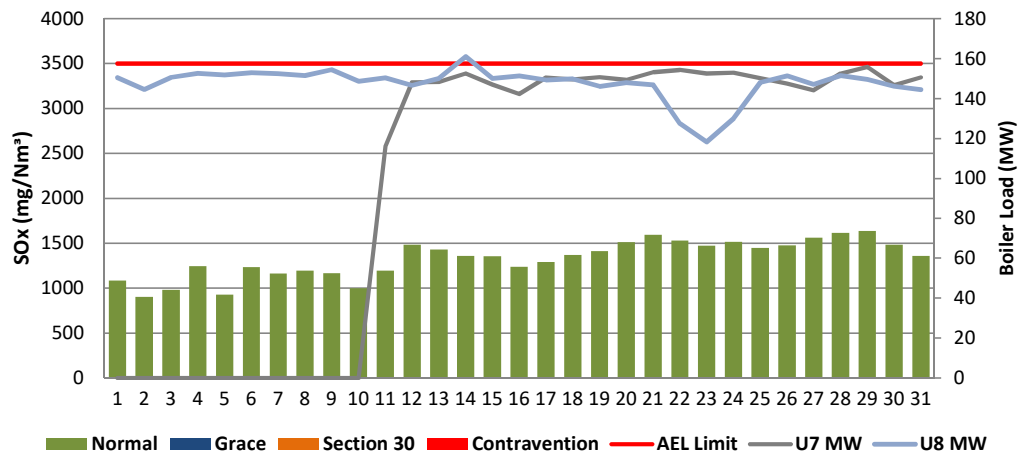


Figure 9: Camden Stack 1 NOx Emissions - July 2021

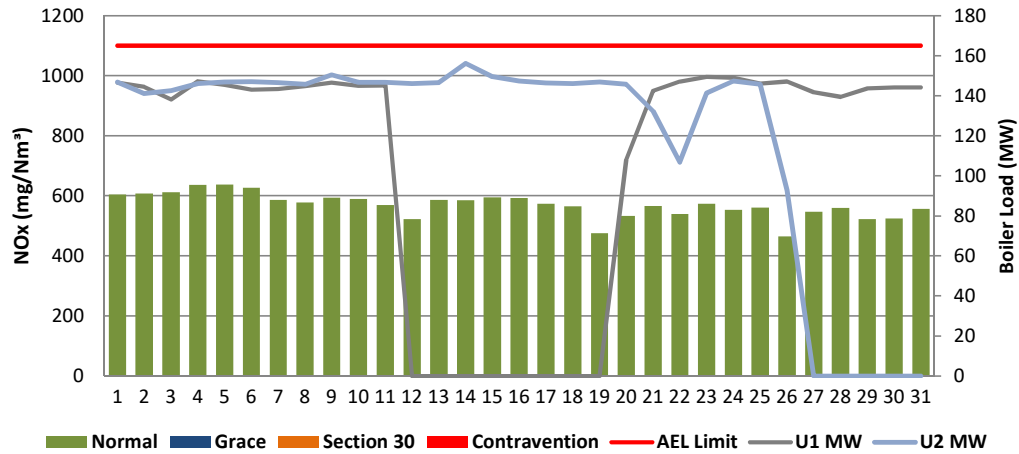


Figure 10: Camden Stack 2 NOx Emissions - July 2021

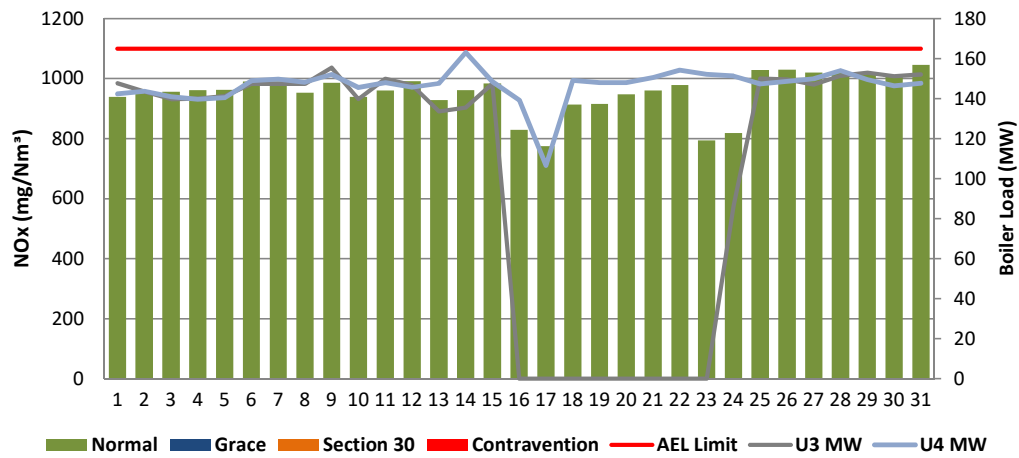


Figure 11: Camden Stack 3 NOx Emissions - July 2021

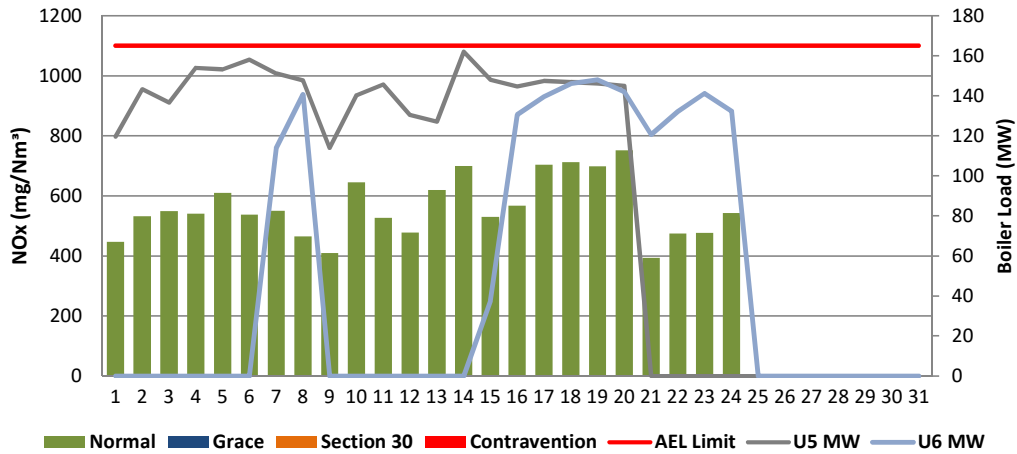
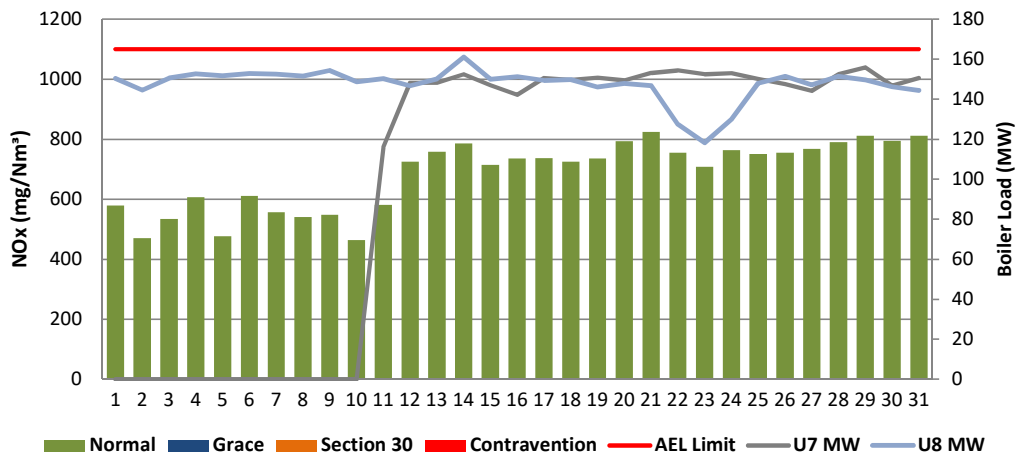


Figure 12: Camden Stack 4 NOx Emissions - July 2021



10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

None

Unit 6:

None

Unit 7:

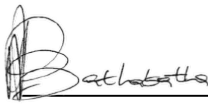
None

Unit 8:

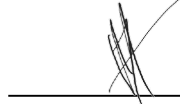
None

General

As previously communicated, average values for the Stack 1-4 O₂ and CO₂ from the QAL2 tests were used for the Month of July 2021


Engineering Manager

17/08/2021
Date


Environmental Manager

17/08/2021
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