

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 Sep-2021
	Coal	Tons	550 000	238 403,00
	Fuel Oil	Tons	5 000	2 501,86
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Sep-2021
	Energy	GWh	1600	448,93
	Ash	Tons	not specified	52 854
	RE PM	kg/MWh	not specified	0,065

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19,56	23,05
Sulphur Content	%	< 2	0,90
Ash Content	%	25 to 35	22,17

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 Sep-2021
Unit 1	Fabric Filter Plant (FFP)	98,9%
Unit 2	Fabric Filter Plant (FFP)	99,96%
Unit 3	Fabric Filter Plant (FFP)	99,87%
Unit 4	Fabric Filter Plant (FFP)	99,84%
Unit 5	Fabric Filter Plant (FFP)	99,97%
Unit 6	Fabric Filter Plant (FFP)	99,98%
Unit 7	Fabric Filter Plant (FFP)	99,99%
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	97,8	98,6	0,0	0,0
Stack 2	100,0	99,9	100,0	0,0	0,0
Stack 3	100,0	98,9	100,0	0,0	0,0
Stack 4	100,0	93,3	96,0	0,0	0,0

6 EMISSION PERFORMANCE

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

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	1,4	185	73	24 269
2	1,9	504	235	81 219
3	8,1	482	308	72 381
4	12,1	718	421	103 259
5	2,8	944	456	131 883
6	0,5	209	87	25 746
7	0,9	648	338	98 504
8	1,5	965	514	161 929
SUM	29,3	4 654	2 432	699 189

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	21	0	0	0	0	6,9
Stack 2	31	0	0	0	0	20,7
Stack 3	31	0	0	0	0	4,0
Stack 4	31	0	0	0	0	1,8
SUM	114	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
Stack 1	23	0	0	0	0	1 233,3
Stack 2	31	0	0	0	0	1 390,2
Stack 3	31	0	0	0	0	1 330,5
Stack 4	31	0	0	0	0	1 145,4
SUM	116	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Stack 1	23	0	0	0	0	549,8
Stack 2	31	0	0	0	0	834,1
Stack 3	31	0	0	0	0	641,2
Stack 4	31	0	0	0	0	609,7
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 - September 2021

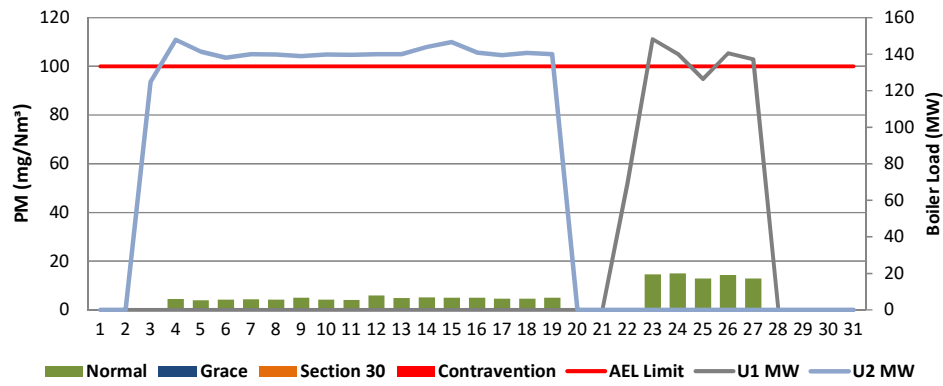


Figure 2: Camden Stack 2 PM Emissions - September 2021

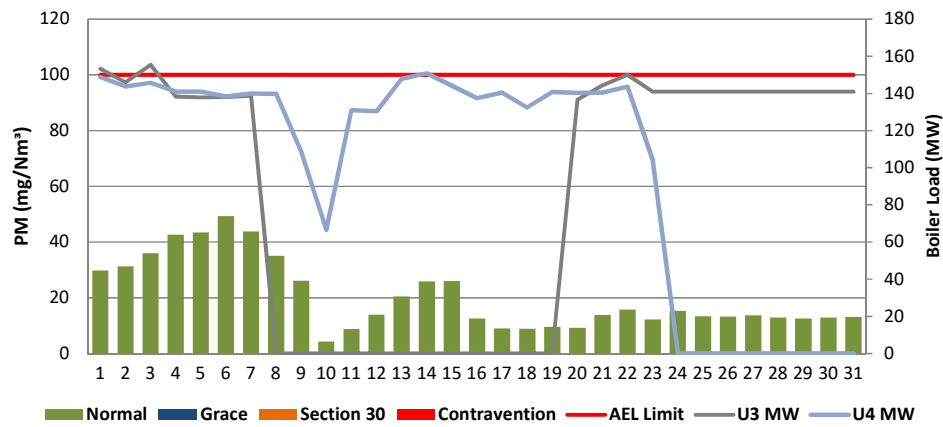


Figure 3: Camden Stack 3 PM Emissions - September 2021

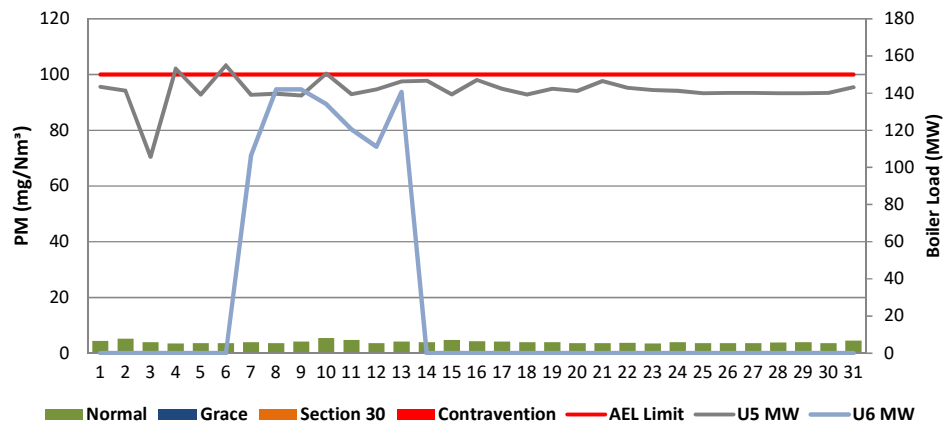


Figure 4: Camden Stack 4 PM Emissions - September 2021

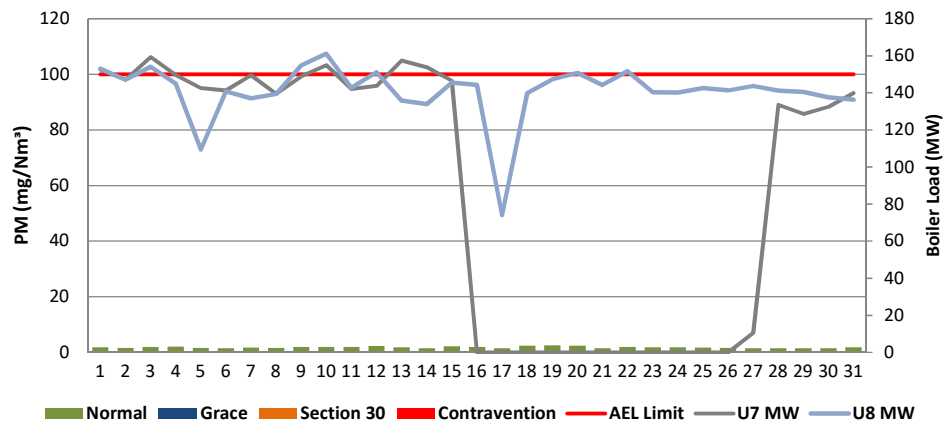


Figure 5: Camden Stack 1 SOx Emissions - September 2021

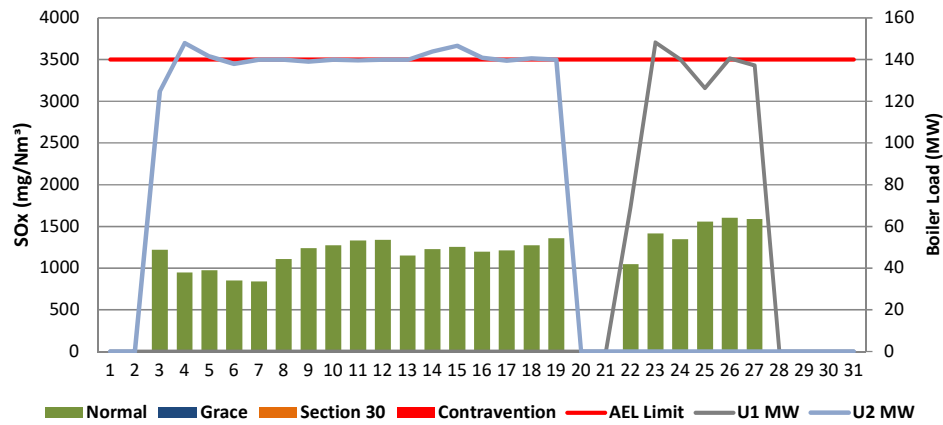


Figure 6: Camden Stack 2 SOx Emissions - September 2021

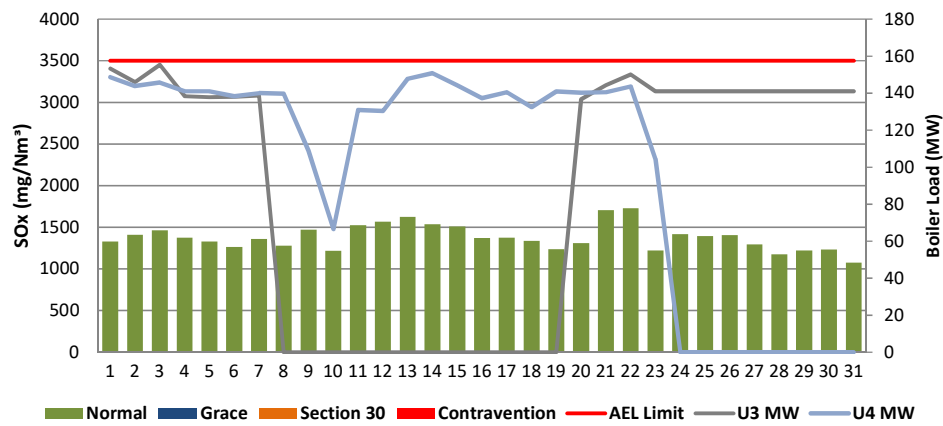


Figure 7: Camden Stack 3 SOx Emissions - September 2021

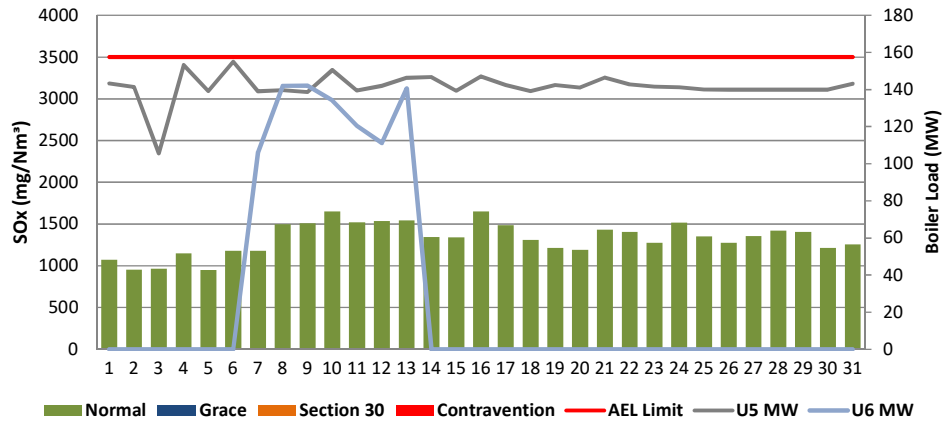


Figure 8: Camden Stack 4 SOx Emissions - September 2021

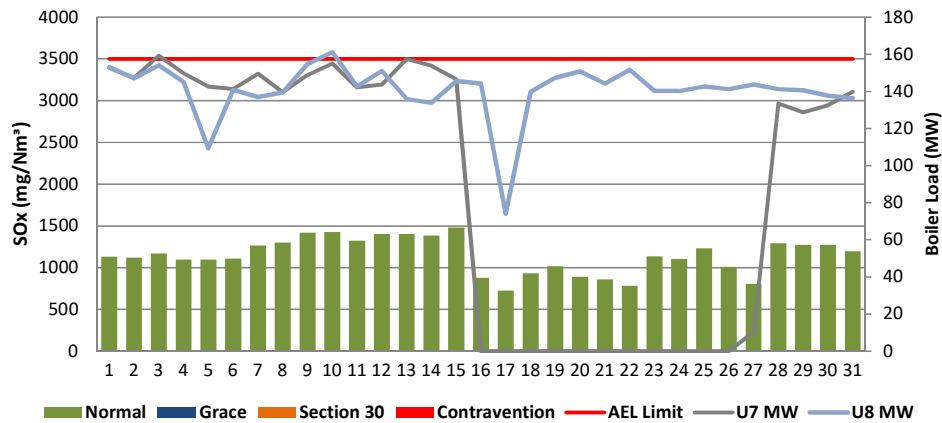


Figure 9: Camden Stack 1 NOx Emissions - September 2021

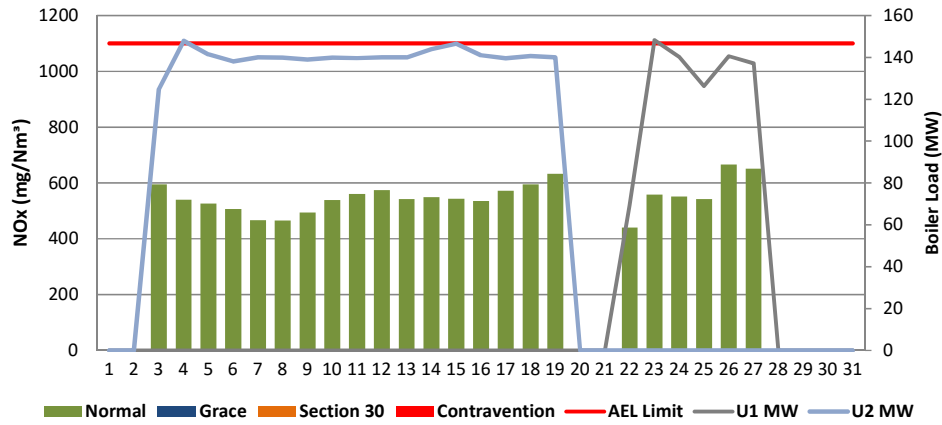


Figure 10: Camden Stack 2 NOx Emissions - September 2021

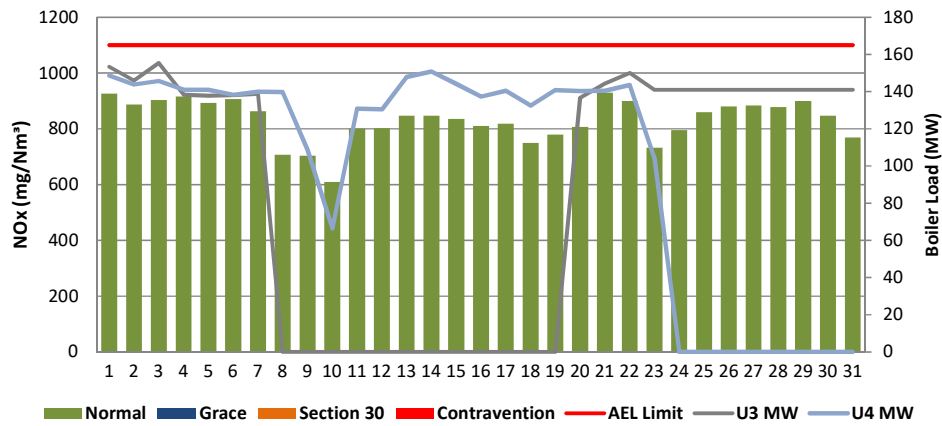


Figure 11: Camden Stack 3 NOx Emissions - September 2021

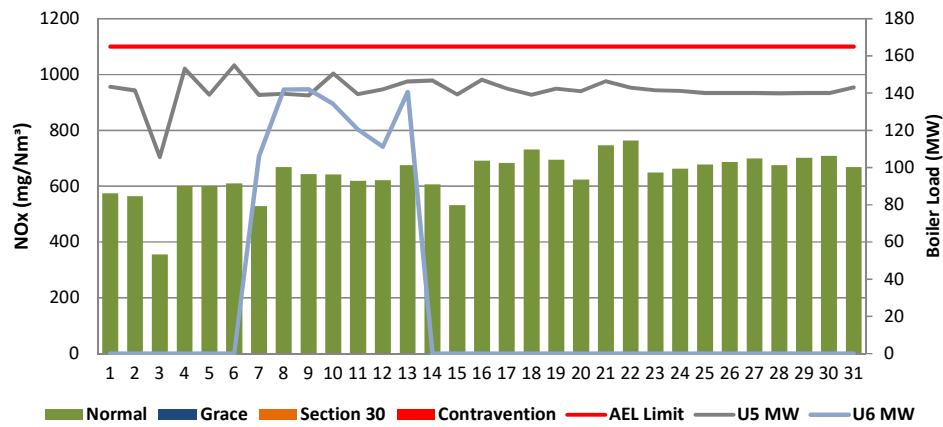
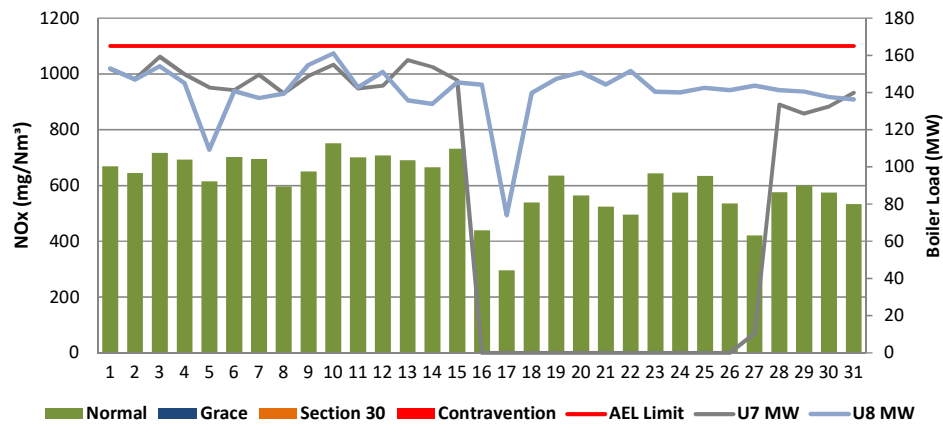


Figure 12: Camden Stack 4 NOx Emissions - September 2021



10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

None

Unit 6:

None

Unit 7:

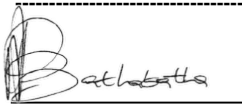
None

Unit 8:

None

General

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


Engineering Manager

19/10/2021
Date


Environmental Manager

25/10/2021
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