

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 Nov-2021
	Coal	Tons	550 000	390 300,00
	Fuel Oil	Tons	5 000	4 277,45
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Nov-2021
	Energy	GWh	1600	543,20
	Ash	Tons	not specified	82 587
	RE PM	kg/MWh	not specified	0,107

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19,56	23,35
Sulphur Content	%	< 2	0,90
Ash Content	%	25 to 35	21,16

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 Nov-2021
Unit 1	Fabric Filter Plant (FFP)	99,8%
Unit 2	Fabric Filter Plant (FFP)	99,87%
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)	99,99%
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	99,6	100,0	0,0	0,0
Stack 2	100,0	99,2	95,5	0,0	0,0
Stack 3	100,0	99,5	96,6	0,0	0,0
Stack 4	100,0	97,3	96,6	0,0	0,0

6 EMISSION PERFORMANCE

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

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	20,0	1 047	451	141 357
2	12,1	785	345	104 124
3	9,7	783	463	96 439
4	9,9	666	390	84 779
5	1,4	400	224	58 635
6	2,2	679	280	95 726
7	0,7	615	263	79 558
8	2,4	1 145	497	164 873
SUM	58,4	6 120	2 913	825 491

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	31	0	0	0	0	27,4
Stack 2	27	0	0	0	0	25,2
Stack 3	29	0	0	0	0	5,0
Stack 4	31	0	0	0	0	2,9
SUM	118	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
Stack 1	31	0	0	0	0	1 386,0
Stack 2	28	0	0	0	0	1 581,7
Stack 3	30	0	0	0	0	1 303,1
Stack 4	31	0	0	0	0	1 344,9
SUM	120	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Stack 1	31	0	0	0	0	596,9
Stack 2	28	0	0	0	0	942,7
Stack 3	30	0	0	0	0	584,5
Stack 4	31	0	0	0	0	584,4
SUM	120	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 - November 2021

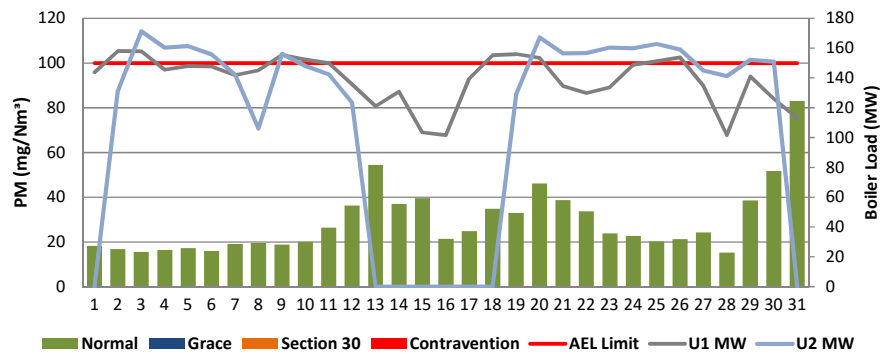


Figure 2: Camden Stack 2 PM Emissions - November 2021

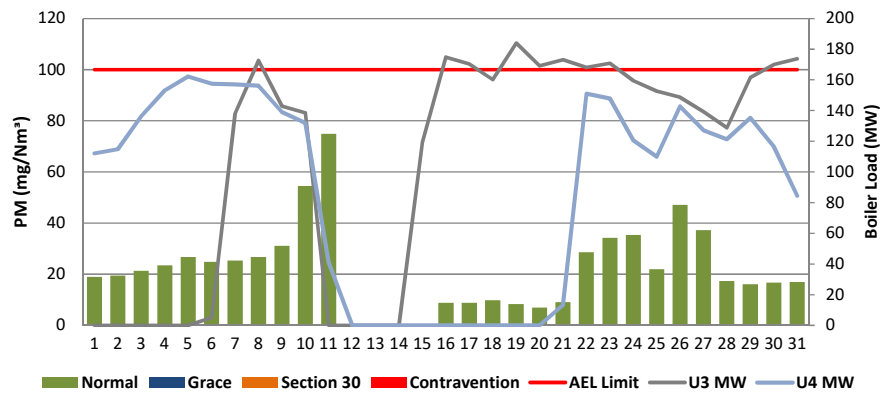


Figure 3: Camden Stack 3 PM Emissions - November 2021

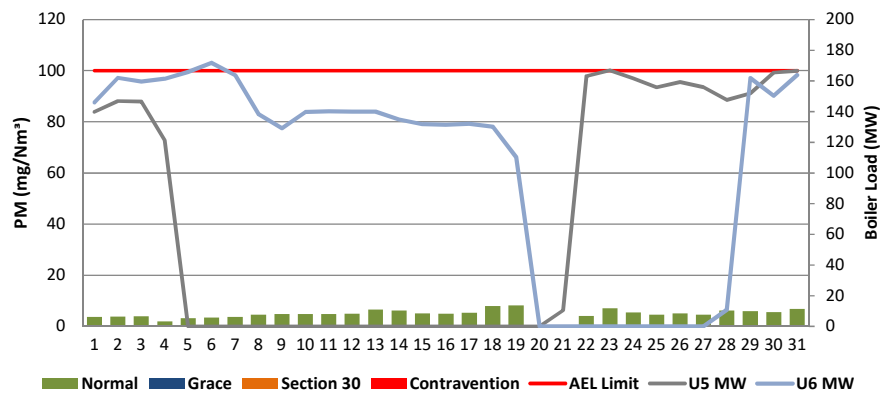


Figure 4: Camden Stack 4 PM Emissions - November 2021

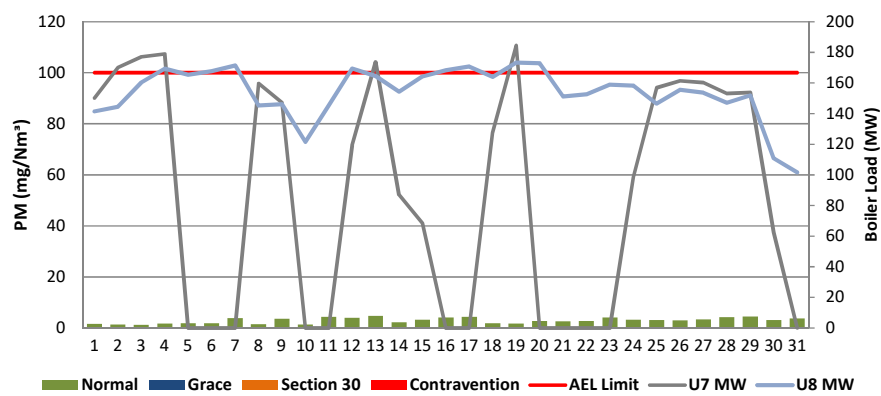


Figure 5: Camden Stack 1 SOx Emissions - November 2021

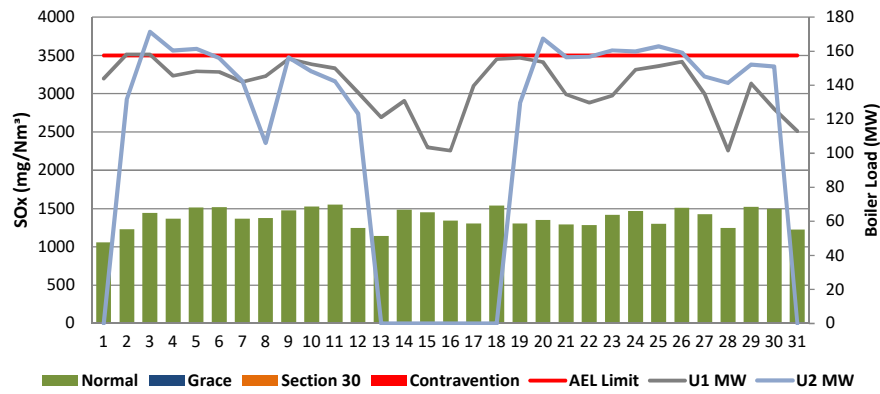


Figure 6: Camden Stack 2 SOx Emissions - November 2021

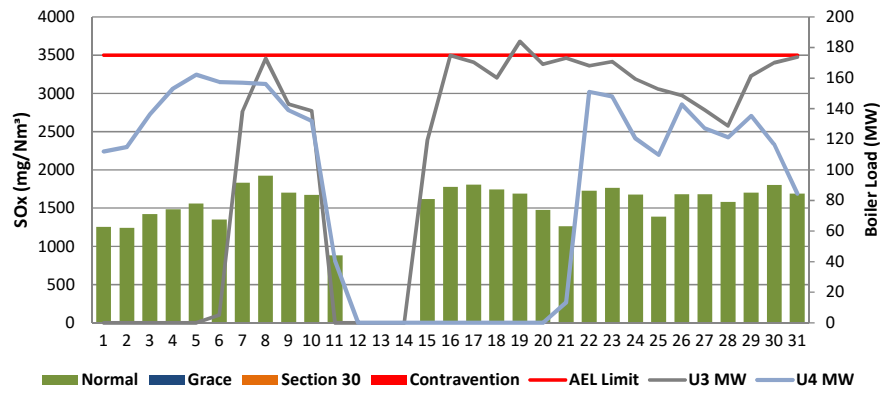


Figure 7: Camden Stack 3 SOx Emissions - November 2021

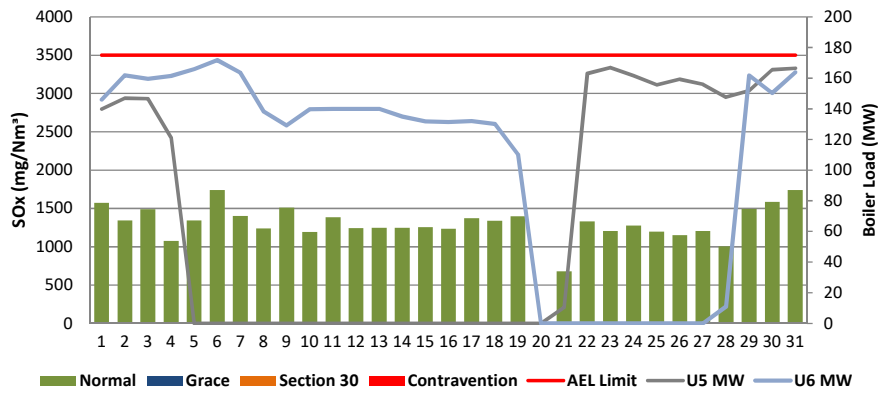


Figure 8: Camden Stack 4 SOx Emissions - November 2021

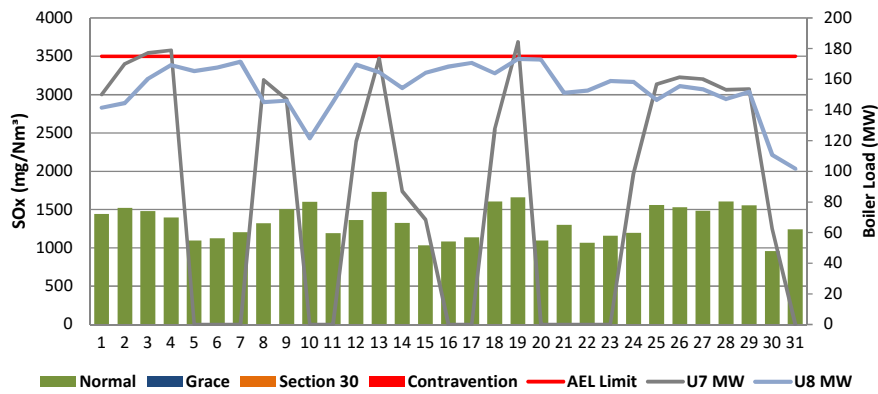


Figure 9: Camden Stack 1 NOx Emissions - November 2021

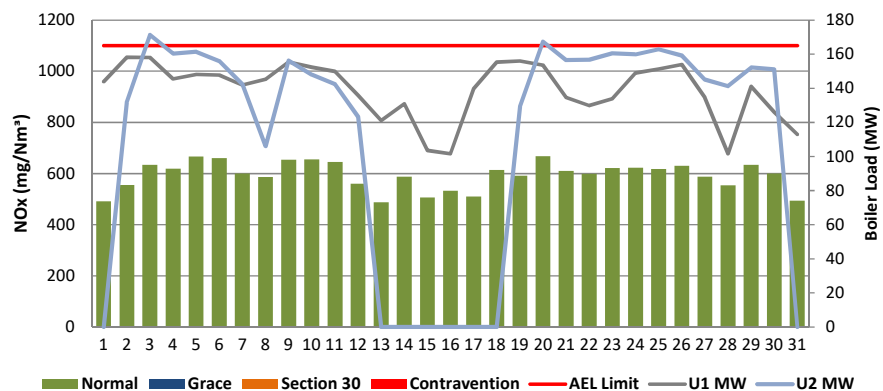


Figure 10: Camden Stack 2 NOx Emissions - November 2021

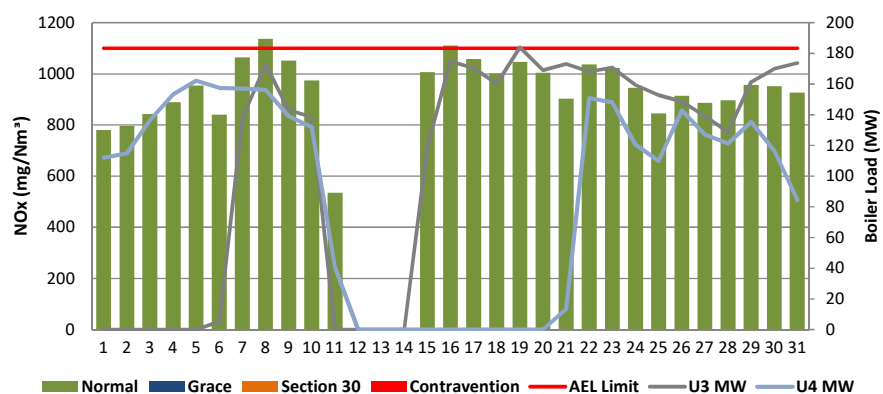


Figure 11: Camden Stack 3 NOx Emissions - November 2021

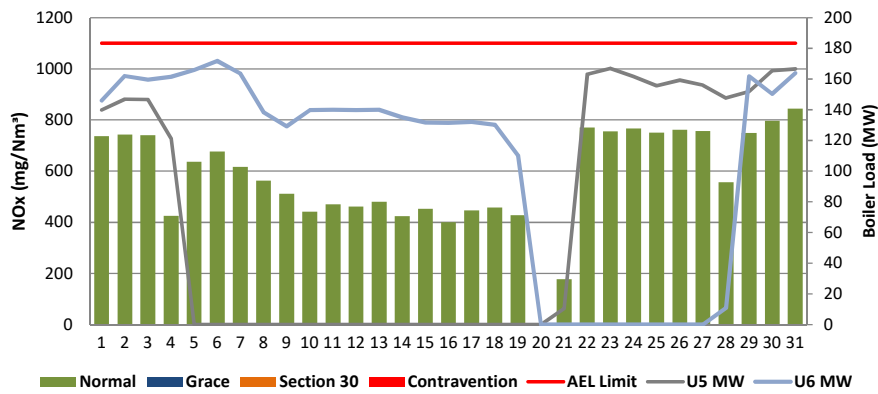
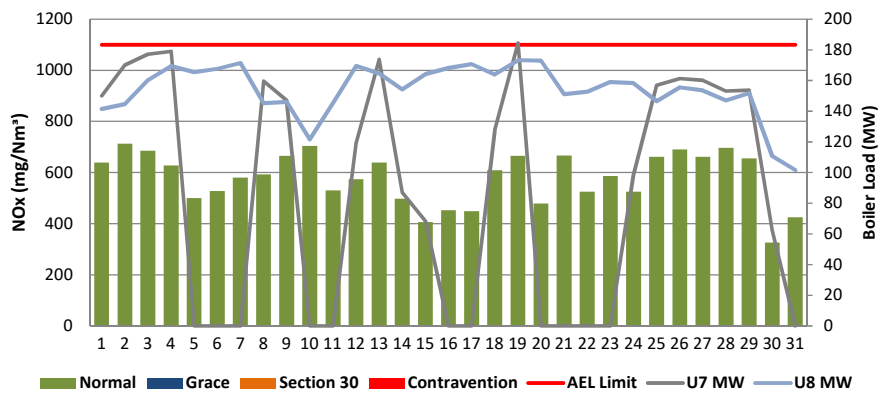


Figure 12: Camden Stack 4 NOx Emissions - November 2021



10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

None

Unit 6:

None

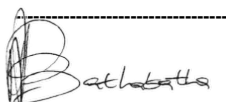
Unit 7:

None

Unit 8:

None

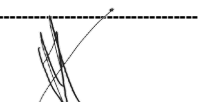
Comments on Use of averages for O2 and CO2 from QAL2 tests as per previous months



Engineering Manager

21/01/2022

Date



Environmental Manager

21/01/2022

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