

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 Rate	Consumption Rate Dec-2020
	Coal	Tons	550 000	207 961.00
	Fuel Oil	Tons	5 000	2 090.94
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Production Rate Dec-2020
	Energy	GWh	1600	310.89
	Ash	Tons	not specified	49 058
	RE PM	kg/MWh	not specified	0.051

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.67
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	23.59

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SOx	NOx
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 Dec-2020
Unit 1	Fabric Filter Plant (FFP)	100.0%
Unit 2	Fabric Filter Plant (FFP)	99.96%
Unit 3	Fabric Filter Plant (FFP)	100.00%
Unit 4	Fabric Filter Plant (FFP)	99.94%
Unit 5	Fabric Filter Plant (FFP)	99.95%
Unit 6	Fabric Filter Plant (FFP)	99.98%
Unit 7	Fabric Filter Plant (FFP)	99.99%
Unit 8	Fabric Filter Plant (FFP)	Unit Off-line

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
Stack 1	100.0	95.8	99.3	98.8
Stack 2	100.0	38.8	73.1	46.6
Stack 3	100.0	94.7	96.0	87.4
Stack 4	99.9	86.8	93.6	91.3

6 EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of December-2020

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	1.0	312	169	49 881
2	6.3	1 285	756	218 808
3	0.0	173	88	27 234
4	4.8	1 017	491	151 249
5	0.8	331	117	26 306
6	2.3	1 372	529	160 694
7	0.6	0	0	0
8	0.0	0	0	0
SUM	15.8	4 491	2 150	634 171

Table 6.2: Operating days in compliance to PM AEL Limit - December 2020

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	31	0	0	0	0	7.0
Stack 2	16	0	0	0	0	8.0
Stack 3	25	0	0	0	0	3.0
Stack 4	10	0	0	0	0	1.6
SUM	82	0	0	0	0	

Table 6.3: Operating days in compliance to SOx AEL Limit - December 2020

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
Stack 1	31	0	0	0	0	0.0
Stack 2	18	0	0	0	0	0.0
Stack 3	28	0	0	0	0	0.0
Stack 4	0	0	0	0	0	0.0
SUM	77	0	0	0	0	

Table 6.4: Operating days in compliance to NOx AEL Limit - December 2020

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Stack 1	31	0	0	0	0	0.0
Stack 2	18	0	0	0	0	0.0
Stack 3	28	0	0	0	0	0.0
Stack 4	0	0	0	0	0	0.0
SUM	77	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 - December 2020

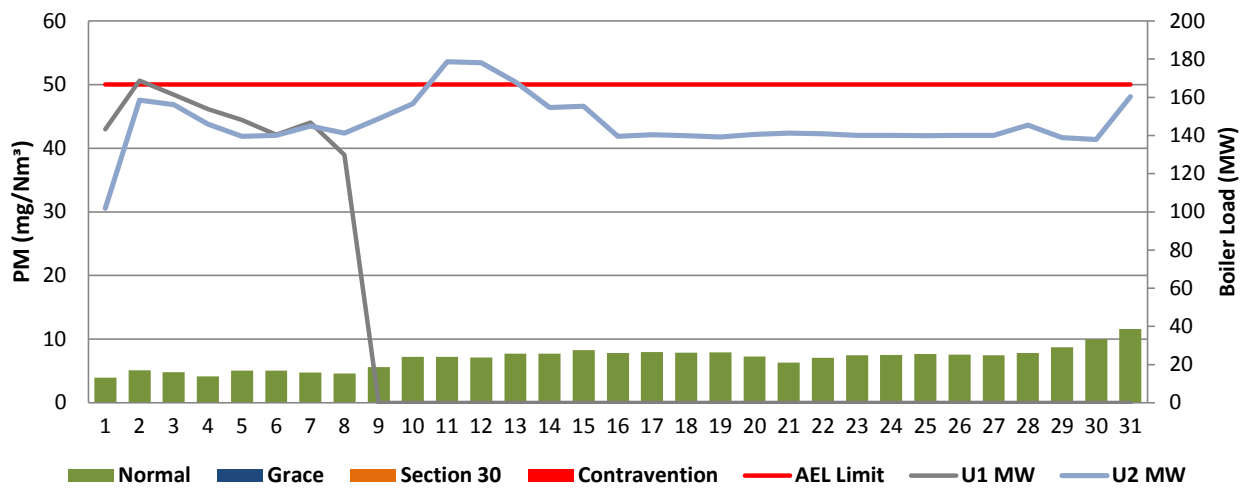


Figure 2: Camden Stack 2 PM Emissions - December 2020

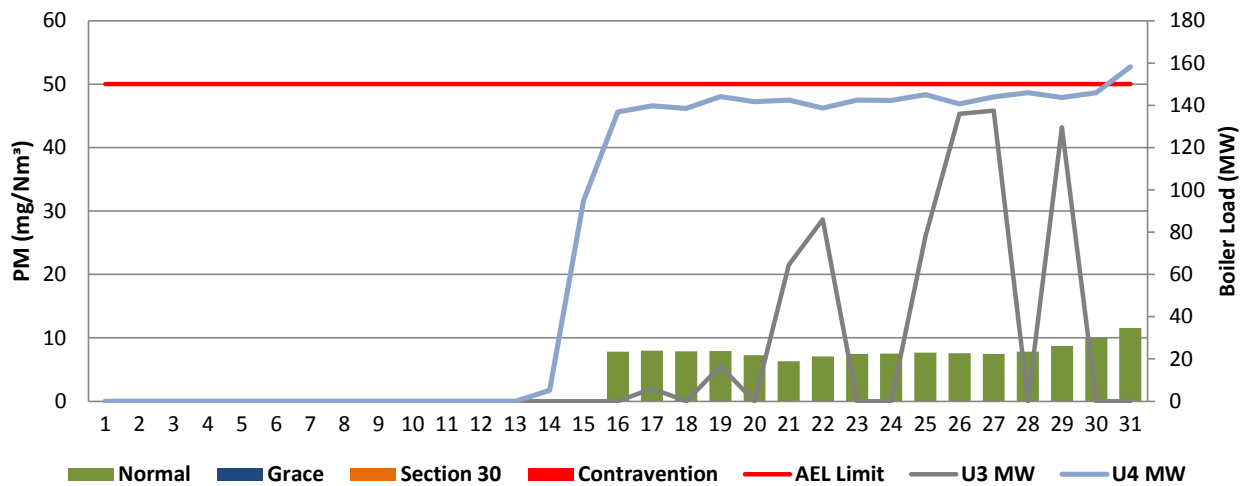


Figure 3: Camden Stack 3 PM Emissions - December 2020

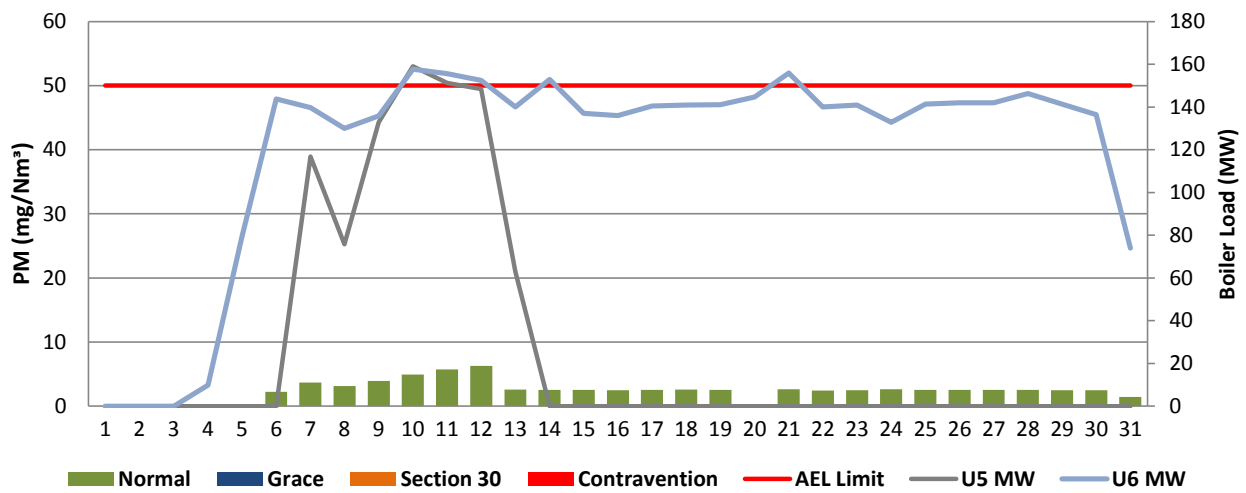


Figure 4: Camden Stack 4 PM Emissions - December 2020

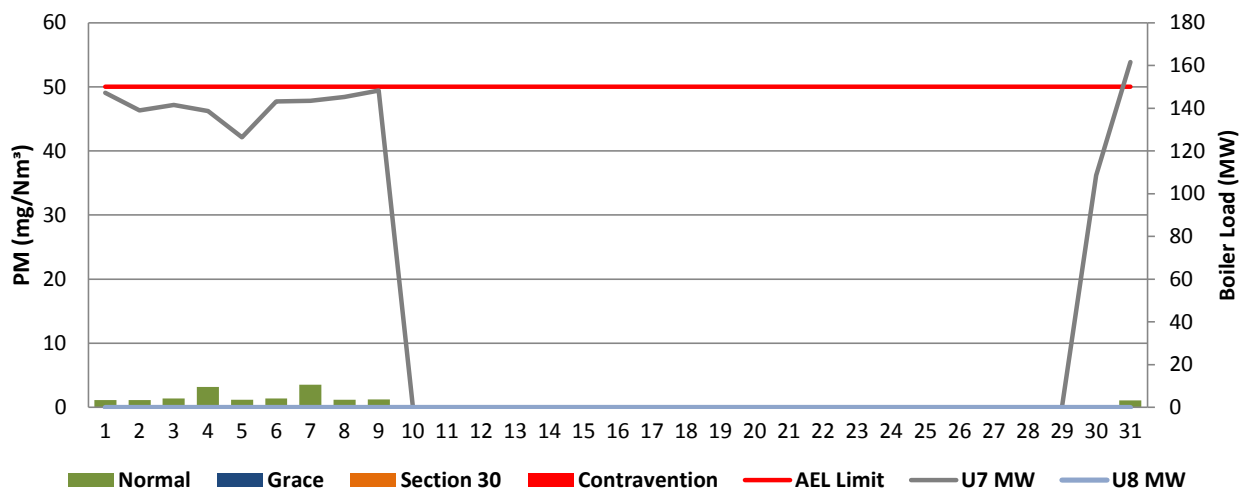


Figure 5: Camden Stack 1 SOx Emissions - December 2020

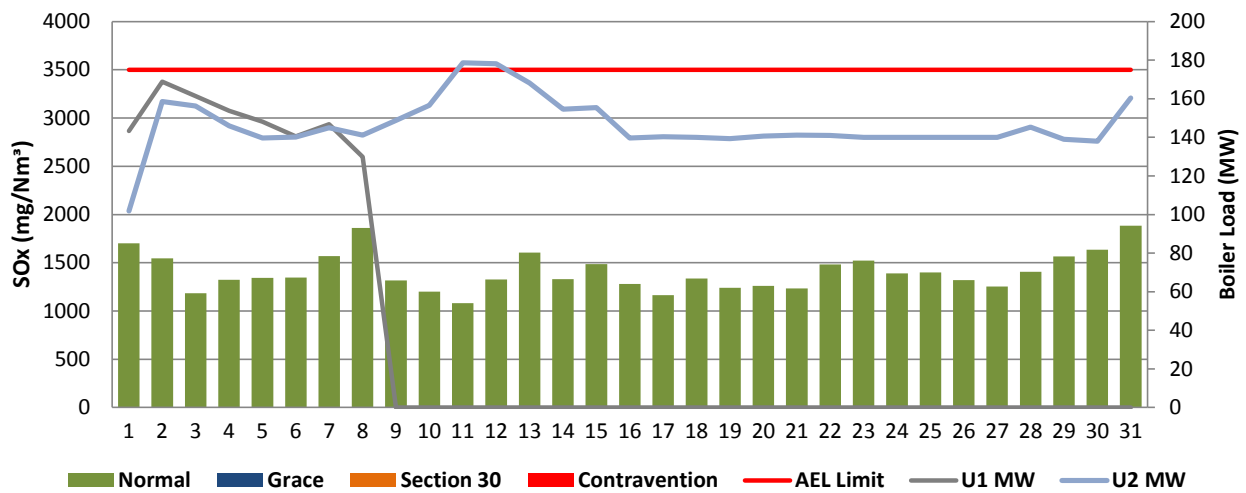


Figure 6: Camden Stack 2 SOx Emissions - December 2020

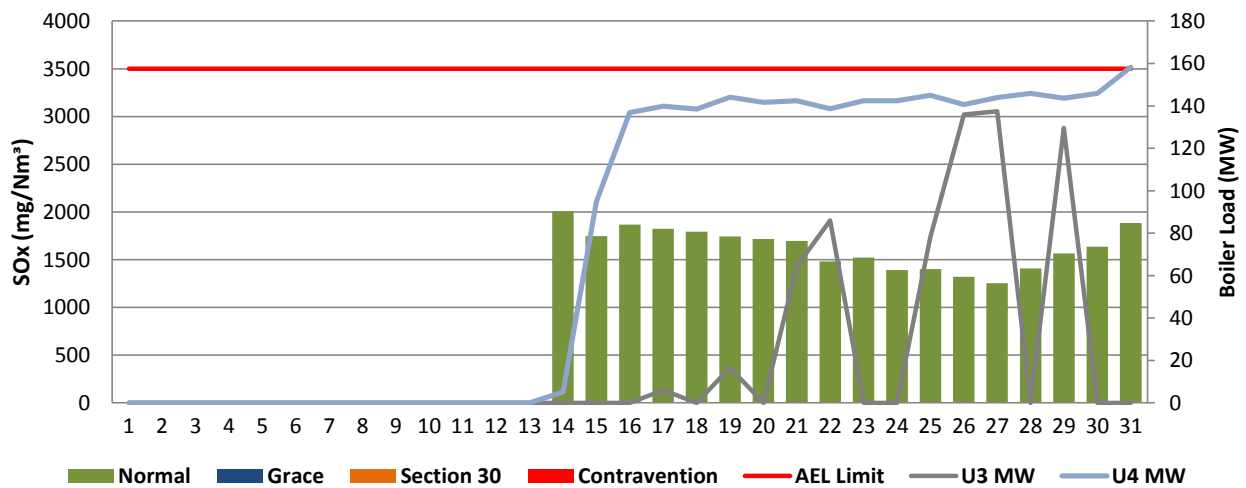


Figure 7: Camden Stack 3 SOx Emissions - December 2020

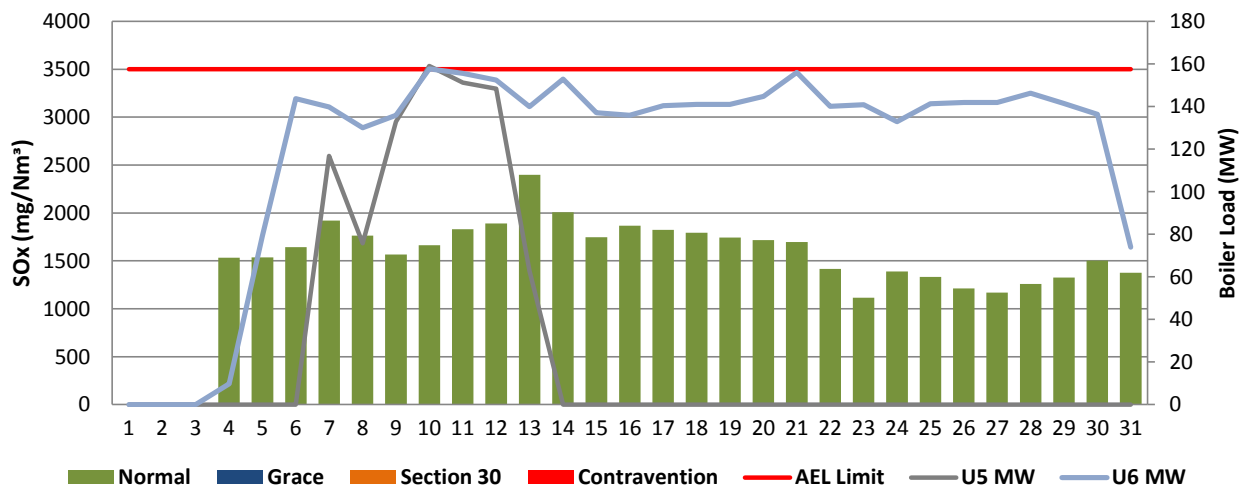


Figure 8: Camden Stack 4 SOx Emissions - December 2020

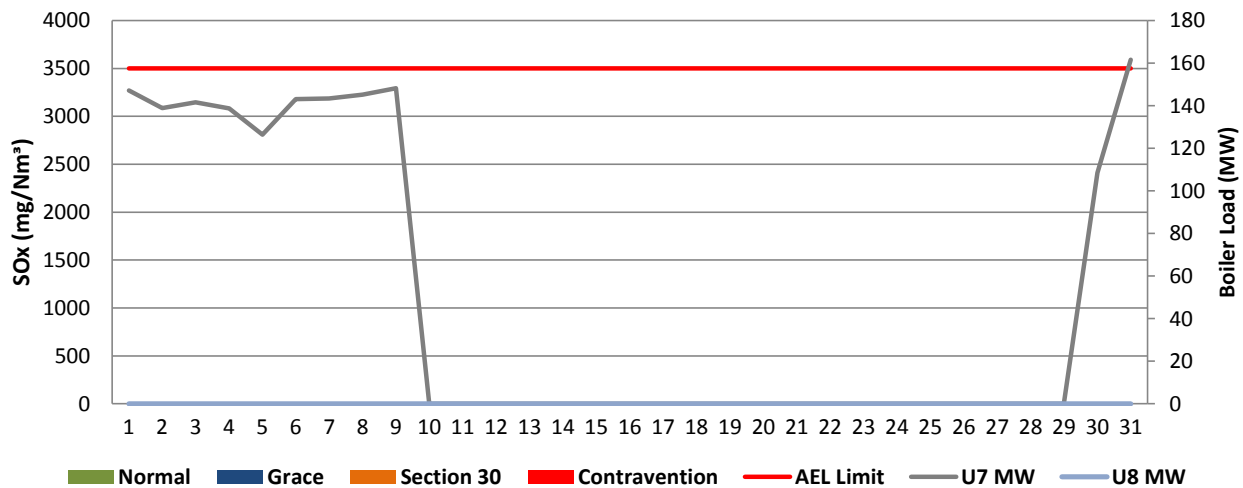


Figure 9: Camden Stack 1 NOx Emissions - December 2020

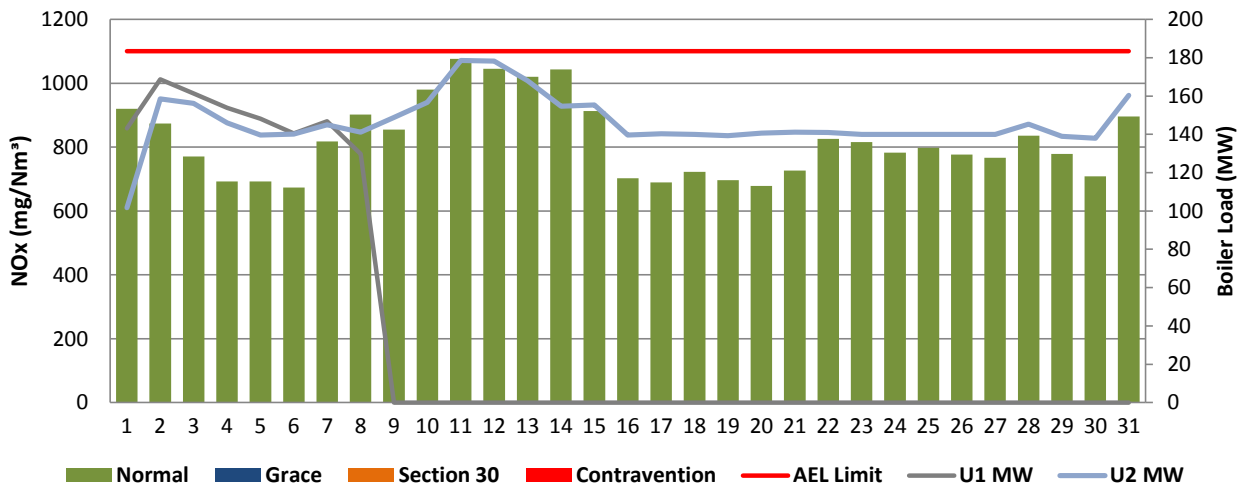


Figure 10: Camden Stack 2 NOx Emissions - December 2020

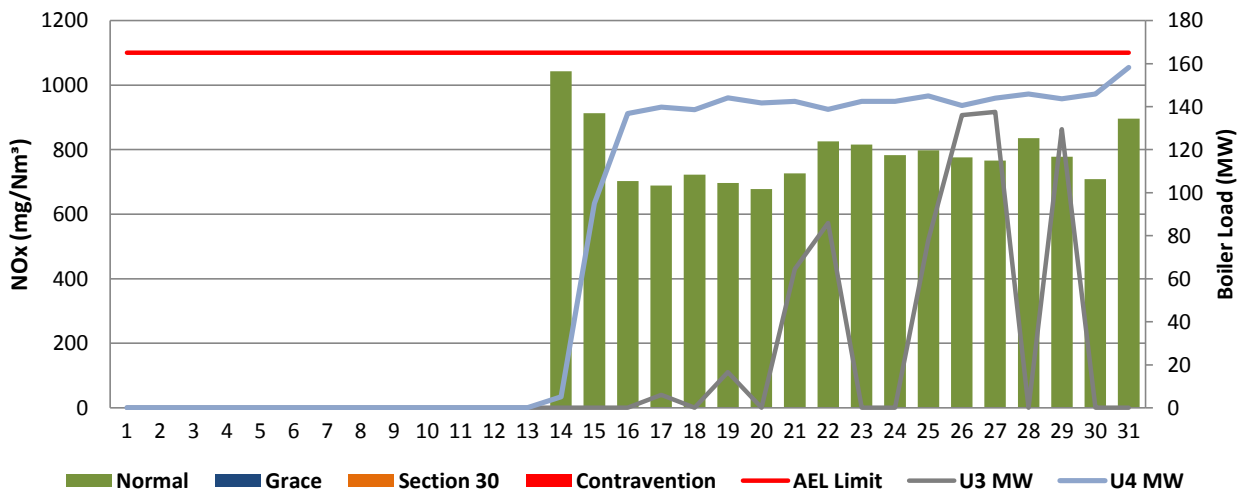


Figure 11: Camden Stack 3 NOx Emissions - December 2020

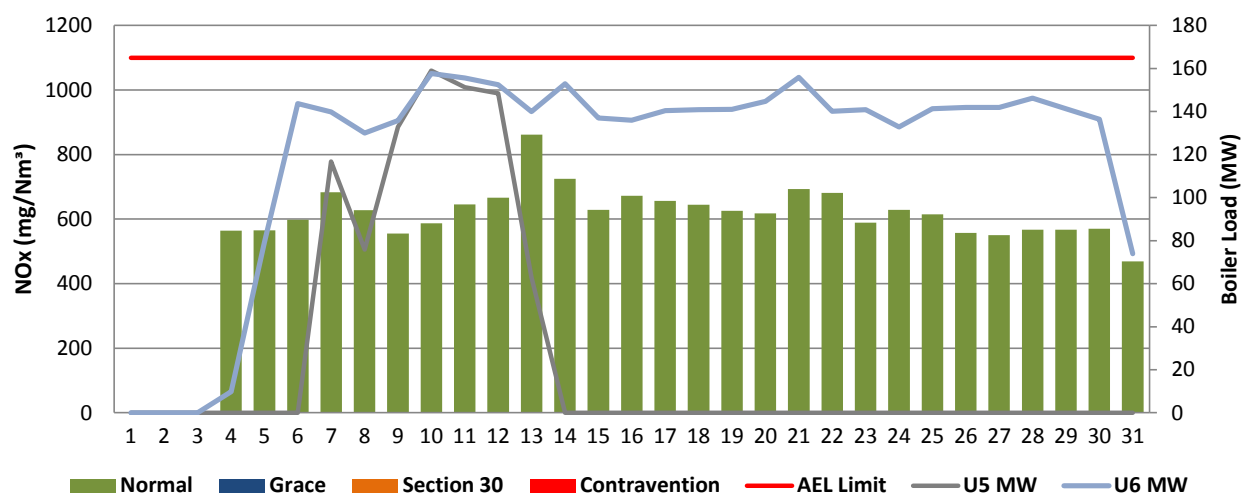
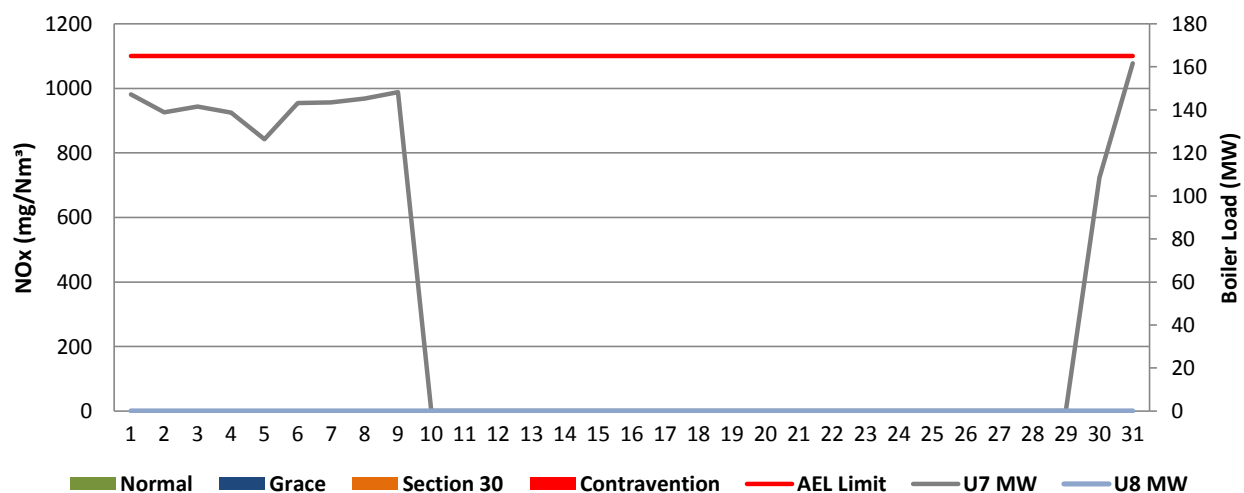


Figure 12: Camden Stack 4 NOx Emissions - December 2020



10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

None

Unit 6:

None

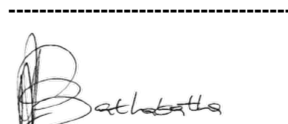
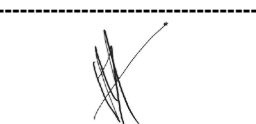
Unit 7:

None

Unit 8:

The unit was off-load for the month.

Stack 2 repairs have been completed. Correlation Tests have been completed on Stacks 1, 3 and 4 as well. Full Correlation Tests on Stack 2 had to be re-scheduled to 26 -30 Jan 2021.

	<u>25/01/2021</u>		<u>25.01.2021</u>
Engineering Manager	Date	Environmental Manager	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

Compliance Management
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