

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 Feb-2021
	Coal	Tons	550 000	170 478.99
	Fuel Oil	Tons	5 000	2 133.37
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Actual Production Feb-2021
	Energy	GWh	1600	260.69
	Ash	Tons	not specified	39 722
	RE PM	kg/MWh	not specified	0.101

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	22.11
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	23.30

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SO _x	NO _x
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 Feb-2021
Unit 1	Fabric Filter Plant (FFP)	Unit Off-load
Unit 2	Fabric Filter Plant (FFP)	99.97%
Unit 3	Fabric Filter Plant (FFP)	99.89%
Unit 4	Fabric Filter Plant (FFP)	99.86%
Unit 5	Fabric Filter Plant (FFP)	Unit Off-line
Unit 6	Fabric Filter Plant (FFP)	Unit Off-line
Unit 7	Fabric Filter Plant (FFP)	99.96%
Unit 8	Fabric Filter Plant (FFP)	99.93%

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	92.2	93.2	58.1	93.5
Stack 2	98.7	94.5	82.8	94.6	84.1
Stack 3					
Stack 4	99.9	98.4	99.4	99.4	100.0

6 EMISSION PERFORMANCE

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

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	0.0	0	0	80
2	2.1	630	323	180 237
3	7.3	581	344	83 985
4	8.5	616	361	87 671
5	0.0	0	0	0
6	0.0	0	0	0
7	5.4	1 122	568	166 705
8	3.0	458	227	65 671
SUM	26.4	3 406	1 824	584 349

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	16	0	0	0	0	5.7
Stack 2	16	0	0	0	0	23.6
Stack 3	0	0	0	0	0	
Stack 4	29	0	0	0	0	6.7
SUM	61	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
Stack 1	17	0	0	0	0	1 622.5
Stack 2	16	0	0	0	0	1 746.1
Stack 3	0	0	0	0	0	
Stack 4	29	0	0	0	0	1 397.5
SUM	62	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Stack 1	17	0	0	0	0	832.6
Stack 2	10	0	6	0	6	1 039.8
Stack 3	0	0	0	0	0	
Stack 4	29	0	0	0	0	707.9
SUM	56	0	6	0	6	

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 - February 2021

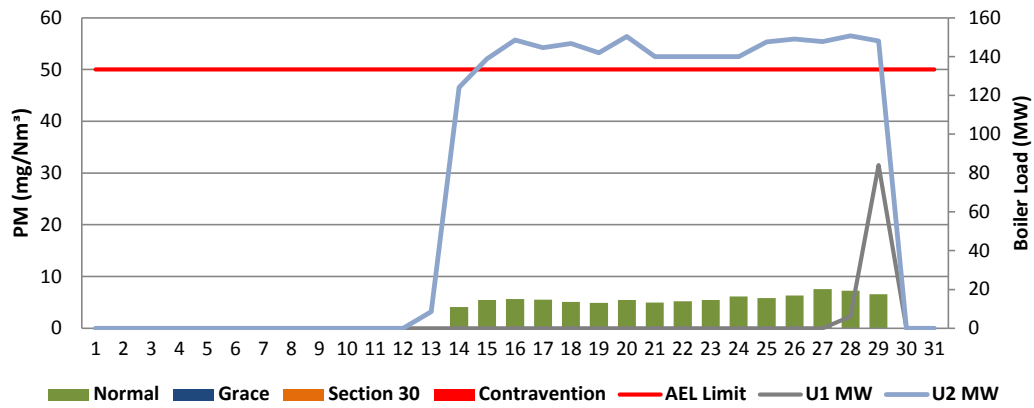


Figure 2: Camden Stack 2 PM Emissions - February 2021

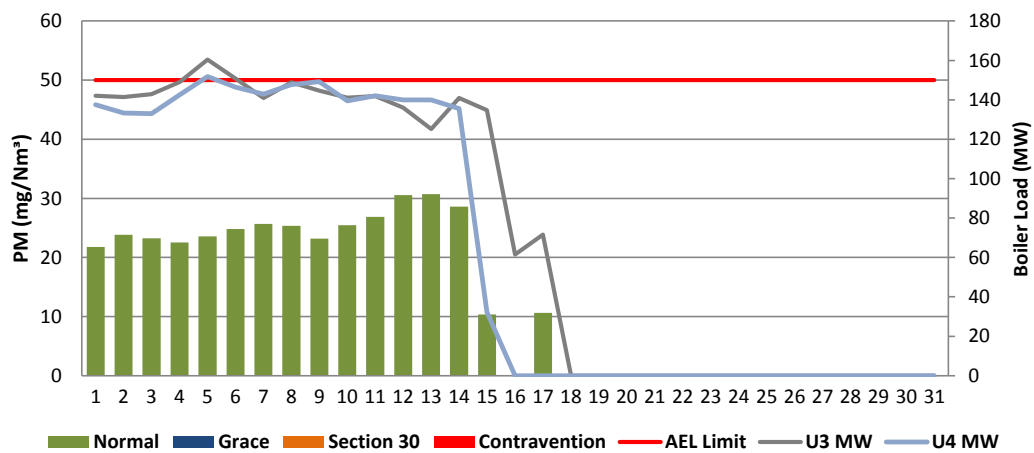


Figure 3: Camden Stack 3 PM Emissions - February 2021

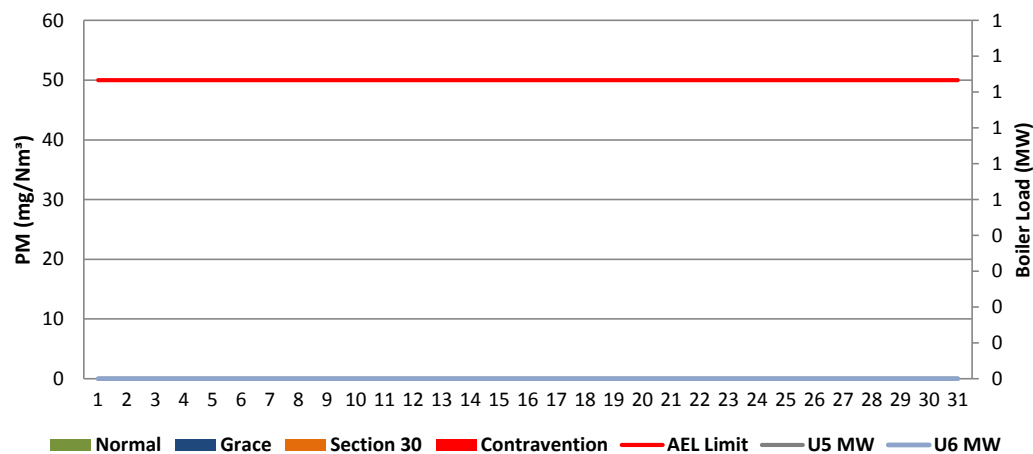


Figure 4: Camden Stack 4 PM Emissions - February 2021

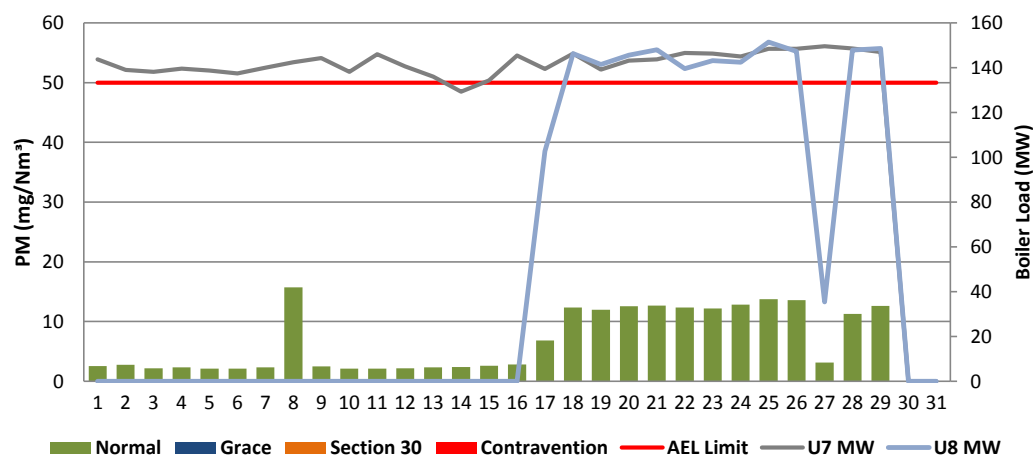


Figure 5: Camden Stack 1 SOx Emissions - February 2021

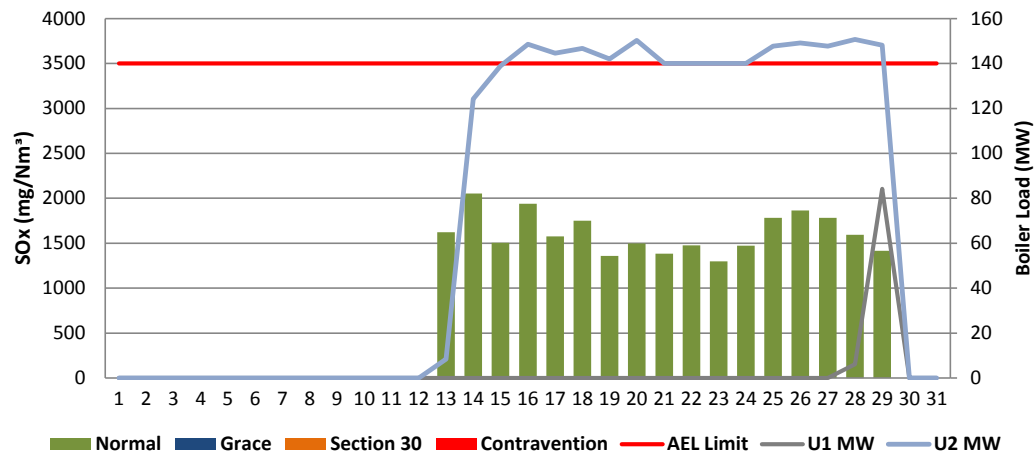


Figure 6: Camden Stack 2 SOx Emissions - February 2021

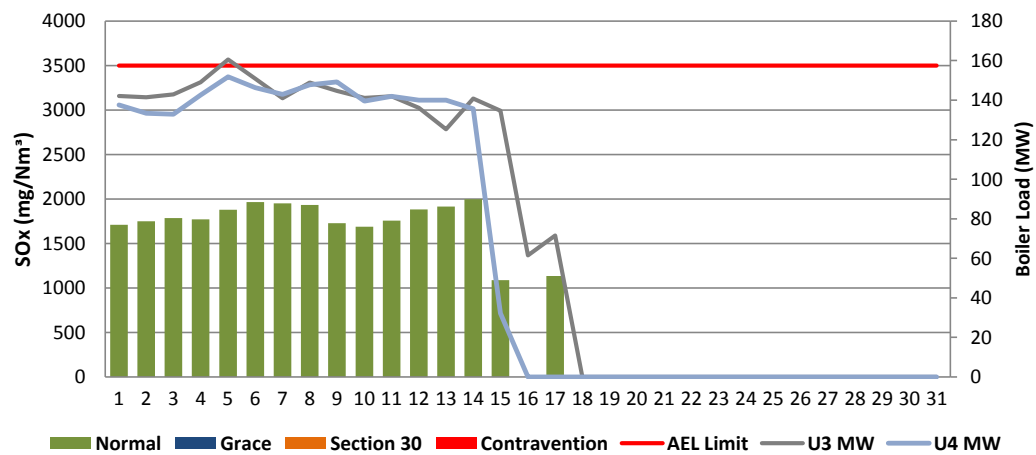


Figure 7: Camden Stack 3 SOx Emissions - February 2021

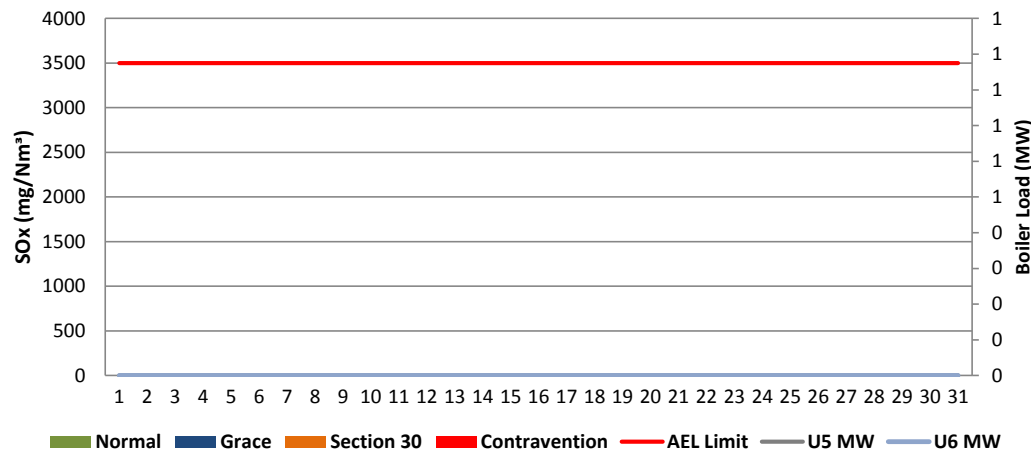


Figure 8: Camden Stack 4 SOx Emissions - February 2021

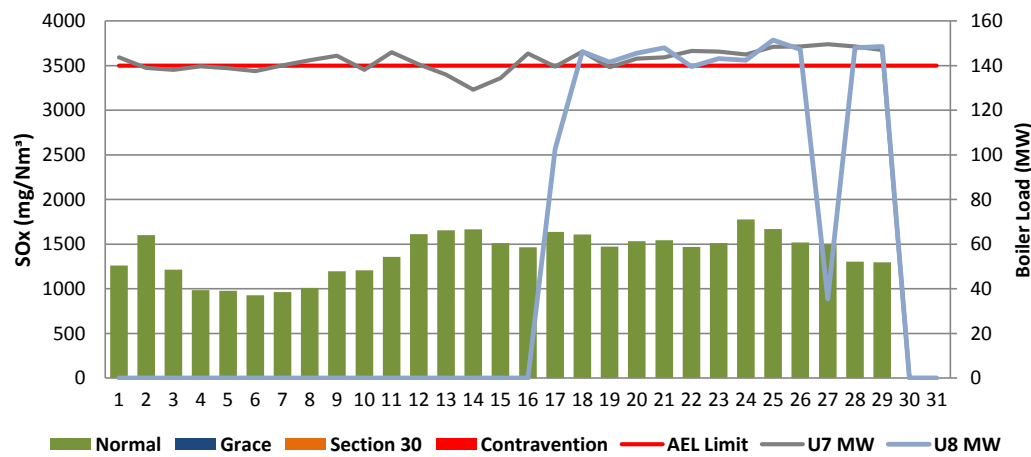


Figure 9: Camden Stack 1 NOx Emissions - February 2021

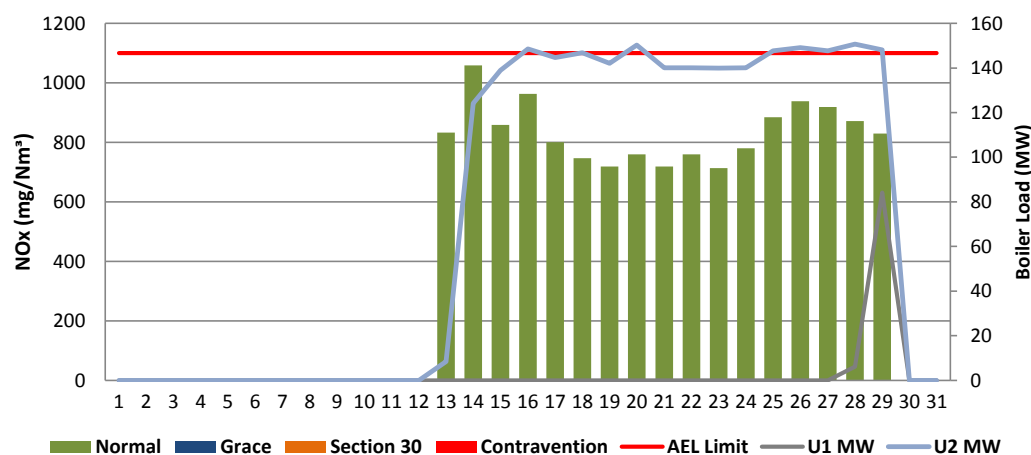


Figure 10: Camden Stack 2 NOx Emissions - February 2021

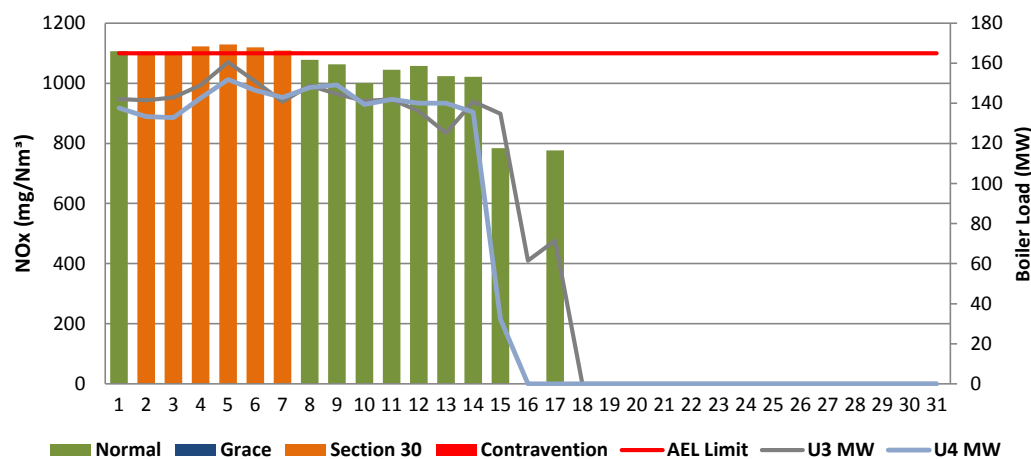


Figure 11: Camden Stack 3 NOx Emissions - February 2021

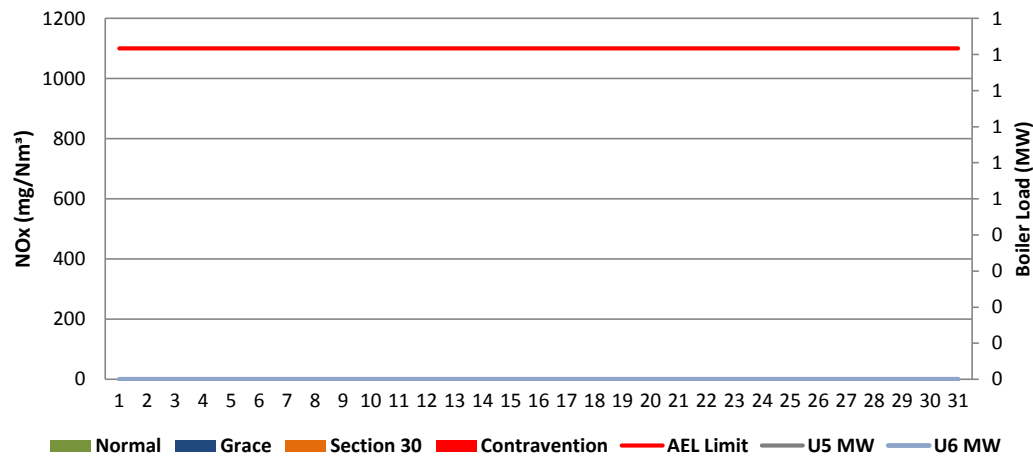
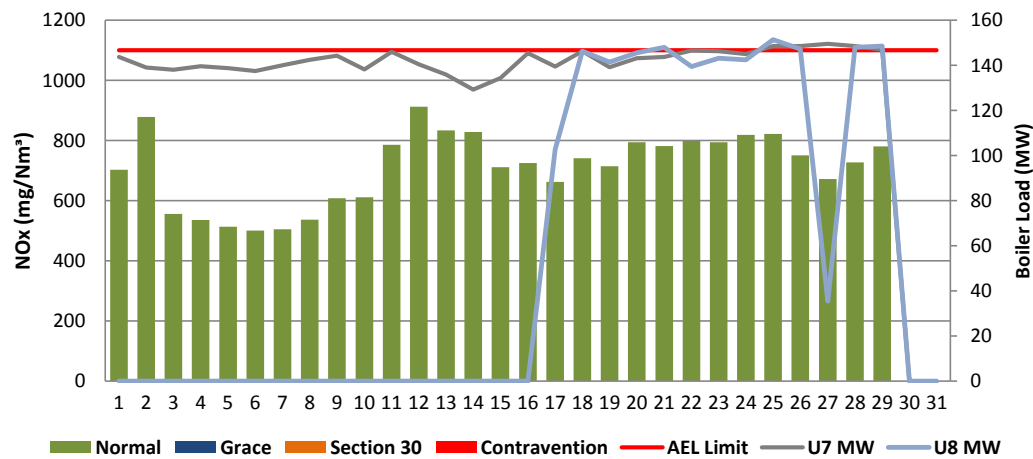


Figure 12: Camden Stack 4 NOx Emissions - February 2021



10 GENERAL / ABNORMALITIES

Unit 1:

The unit was off-load for the month.

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

The unit was off-load for the month.

Unit 6:

The unit was off-load for the month.

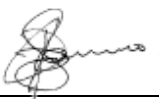
Unit 7:

None

Unit 8:

None

All Stack
Correlation
and Parallel
Verification
Tests have
been
completed
and curves
implemented.
Please also
note the NOX
exceedances
from the
period 31st
Jan 2021 -
7th February
2021 on
stack 2, this
are under
investigation
especially
that Camden
has recently
implemented
new curves in
February
2021


p.p

Engineering Manager

26/03/2021

Date



Environmental Manager

26/03/2021

Date

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