

**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 Mar-2020
	Coal	Tons	550 000	222 715.00
	Fuel Oil	Tons	5 000	1 718.87

Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Production Rate Mar-2020
	Energy	GWh	1600	367.22
	Ash	Tons	not specified	51 247
	RE PM	kg/MWh	not specified	0.293

**2 ENERGY SOURCE CHARACTERISTICS**

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	23.01

### 3 EMISSION LIMITS (mg/Nm<sup>3</sup>)

Associated Unit/Stack	PM	SO <sub>x</sub>	NO <sub>x</sub>
Stack 1	100	3500	1300
Stack 2	100	3500	1300
Stack 3	100	3500	1300
Stack 4	100	3500	1300

### 4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency Mar-2020
Unit 1	Fabric Filter Plant (FFP)	100.0%
Unit 2	Fabric Filter Plant (FFP)	99.98%
Unit 3	Fabric Filter Plant (FFP)	99.67%
Unit 4	Fabric Filter Plant (FFP)	Unit Off-line
Unit 5	Fabric Filter Plant (FFP)	Unit Off-line
Unit 6	Fabric Filter Plant (FFP)	Unit Off-line
Unit 7	Fabric Filter Plant (FFP)	99.54%
Unit 8	Fabric Filter Plant (FFP)	99.68%

Note: Abatement plant does not have bypass mode operation, hence plant 100% Utilised.

### 5 MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO <sub>2</sub>	NO	CO <sub>2</sub>
Stack 1	100.0	98.4	100.0	
Stack 2	99.8	80.2	0.0	
Stack 3	#DIV/0!	#DIV/0!	#DIV/0!	
Stack 4	100.0	96.7	98.6	

### 6 EMISSION PERFORMANCE

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

Associated Unit/Stack	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	CO <sub>2</sub> (tons)
1	2.8	1 316	600	
2	1.7	948	443	
3	29.8	1 164	516	
4	0.0	0	0	
5	0.0	0	0	
6	0.0	0	0	
7	43.0	829	378	
8	30.5	890	407	
<b>SUM</b>	<b>107.7</b>	<b>5 147</b>	<b>2 345</b>	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm <sup>3</sup> )
Stack 1	31	0	0	0	0	3.2
Stack 2	31	0	0	0	0	47.5
Stack 3	0	0	0	0	0	
Stack 4	31	0	0	0	0	47.5
<b>SUM</b>	<b>93</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm <sup>3</sup> )
Stack 1	31	0	0	0	0	0.0
Stack 2	31	0	0	0	0	0.0
Stack 3	0	0	0	0	0	0.0
Stack 4	31	0	0	0	0	0.0
<b>SUM</b>	<b>93</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

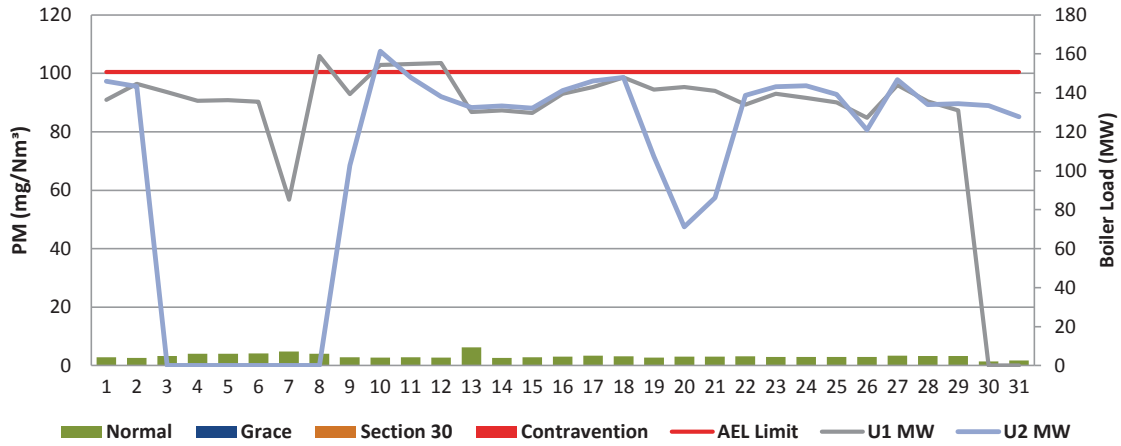
Table 6.4: Operating days in compliance to NOx AEL Limit - March 2020

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm <sup>3</sup> )
Stack 1	31	0	0	0	0	0.0
Stack 2	31	0	0	0	0	0.0
Stack 3	0	0	0	0	0	0.0
Stack 4	31	0	0	0	0	0.0
<b>SUM</b>	<b>93</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

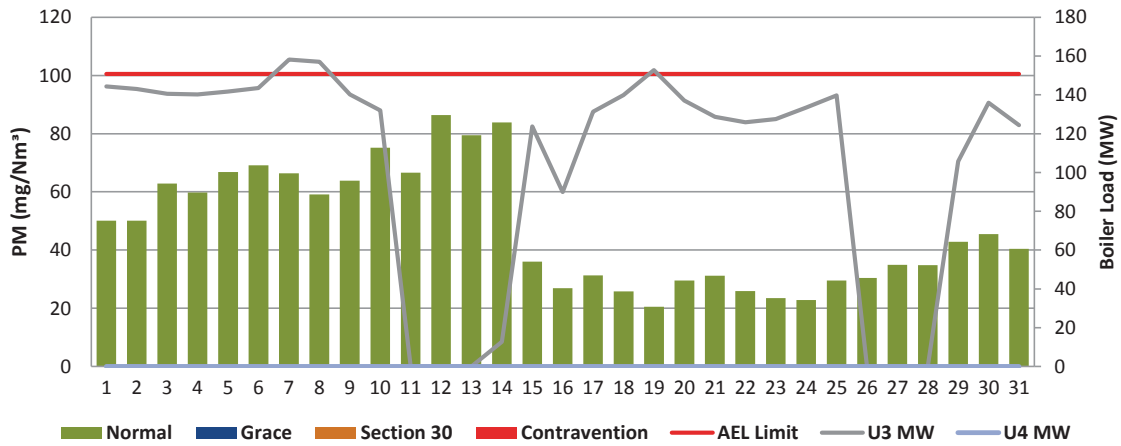
Table 6.5: Legend Description

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

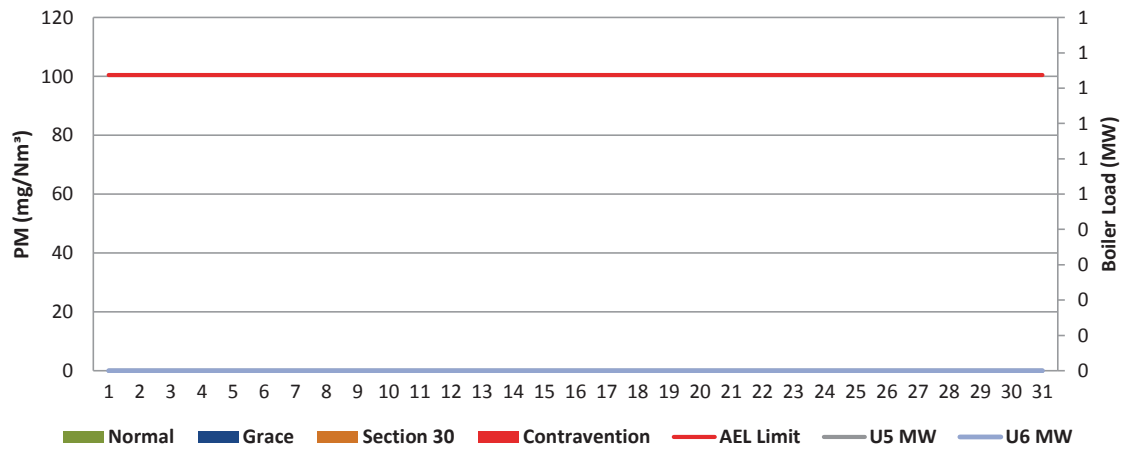
**Figure 1: Camden Stack 1 PM Emissions - March 2020**



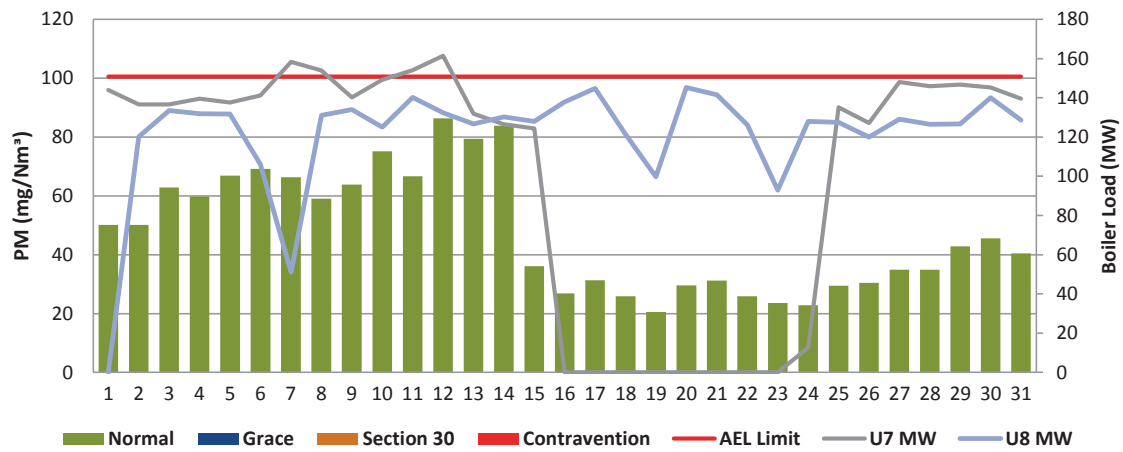
**Figure 2: Camden Stack 2 PM Emissions - March 2020**



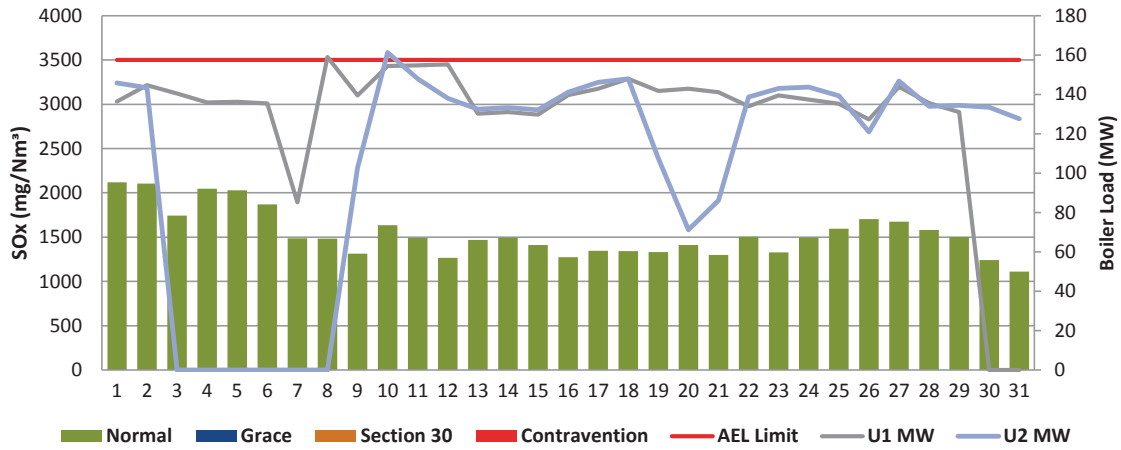
**Figure 3: Camden Stack 3 PM Emissions - March 2020**



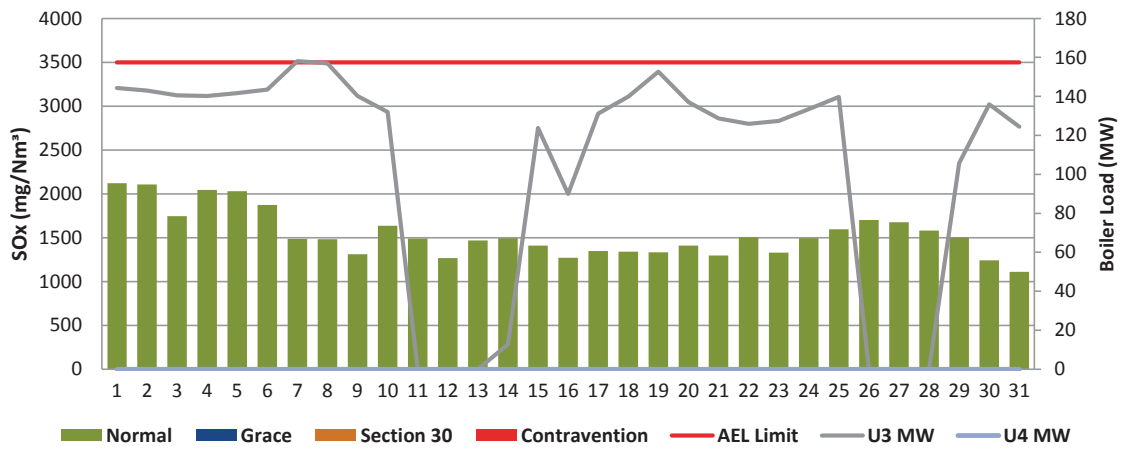
**Figure 4: Camden Stack 4 PM Emissions - March 2020**



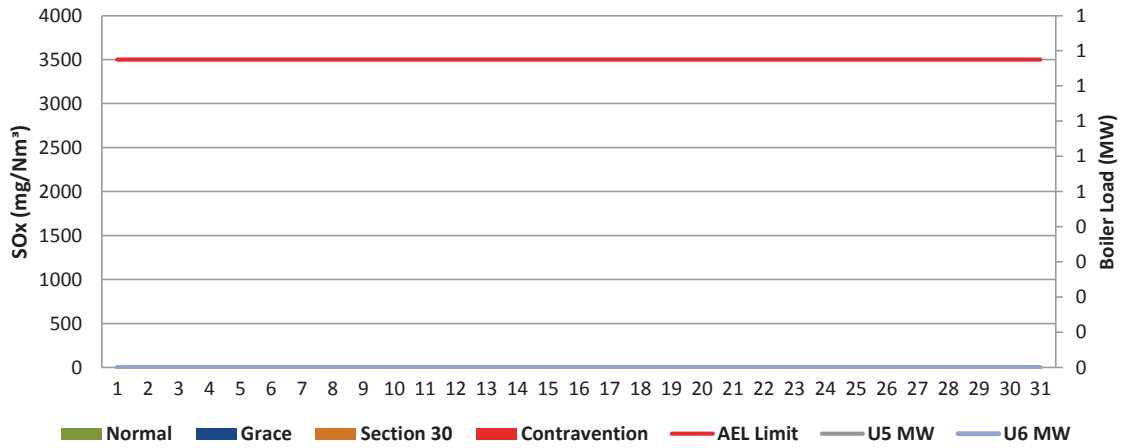
**Figure 5: Camden Stack 1 SOx Emissions - March 2020**



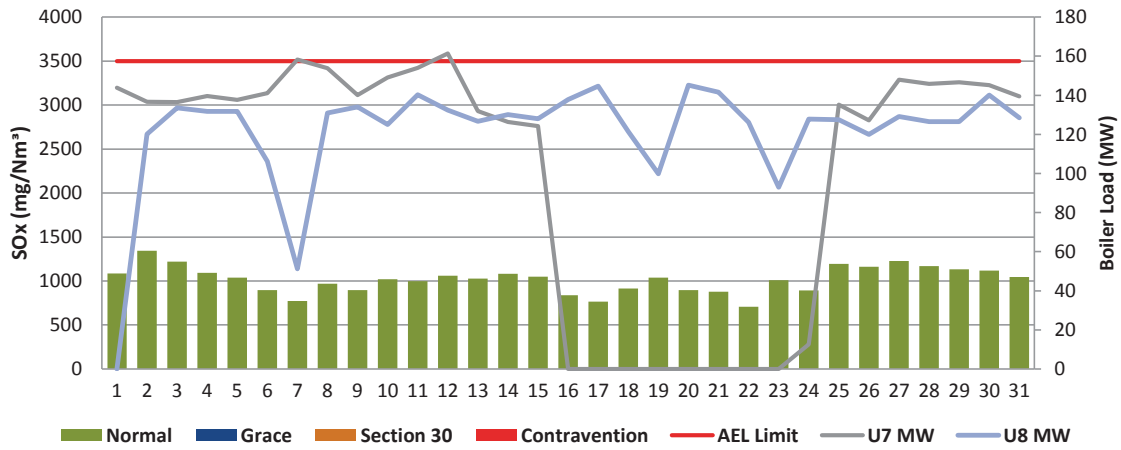
**Figure 6: Camden Stack 2 SOx Emissions - March 2020**



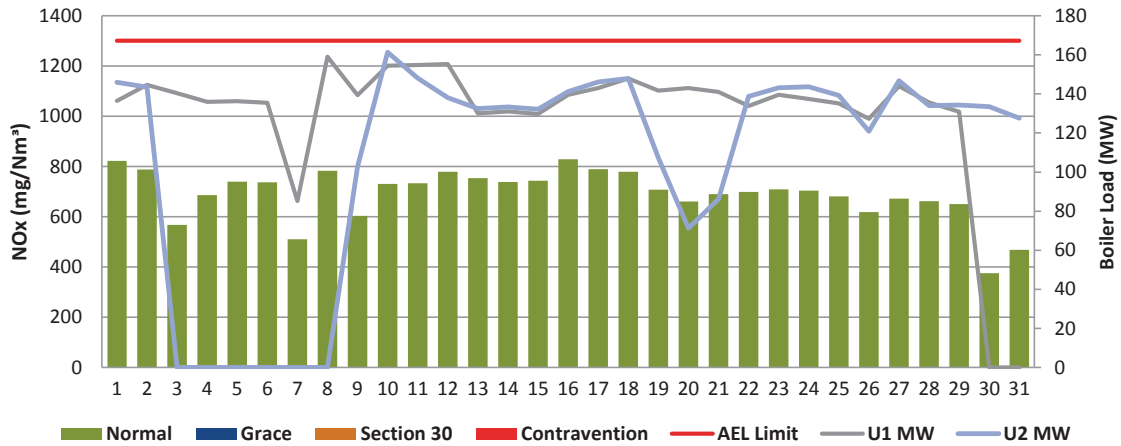
**Figure 7: Camden Stack 3 SOx Emissions - March 2020**



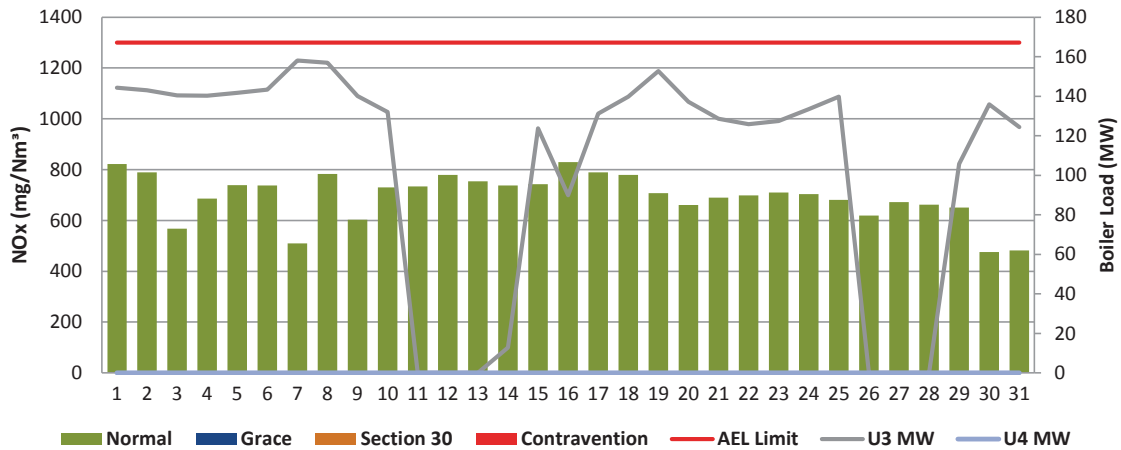
**Figure 8: Camden Stack 4 SOx Emissions - March 2020**



**Figure 9: Camden Stack 1 NOx Emissions - March 2020**

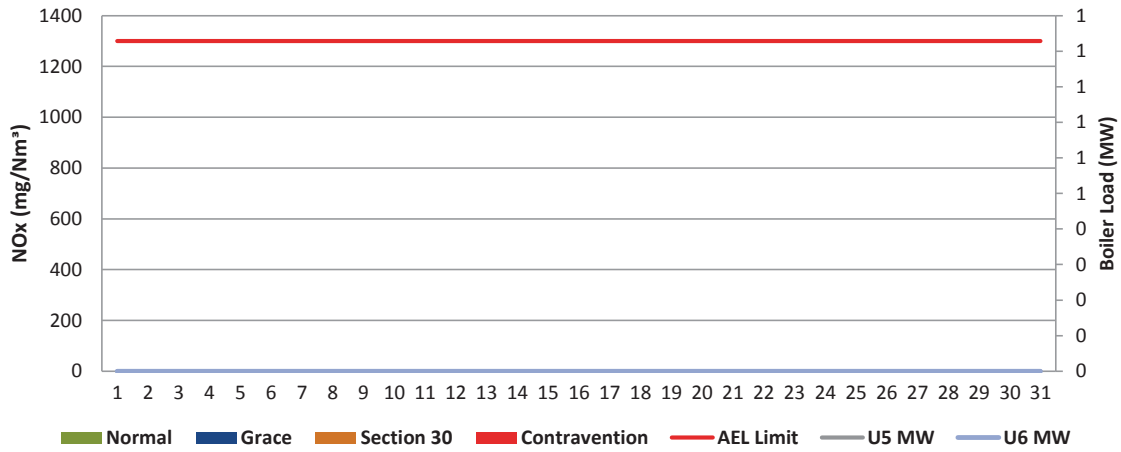


**Figure 10: Camden Stack 2 NOx Emissions - March 2020**

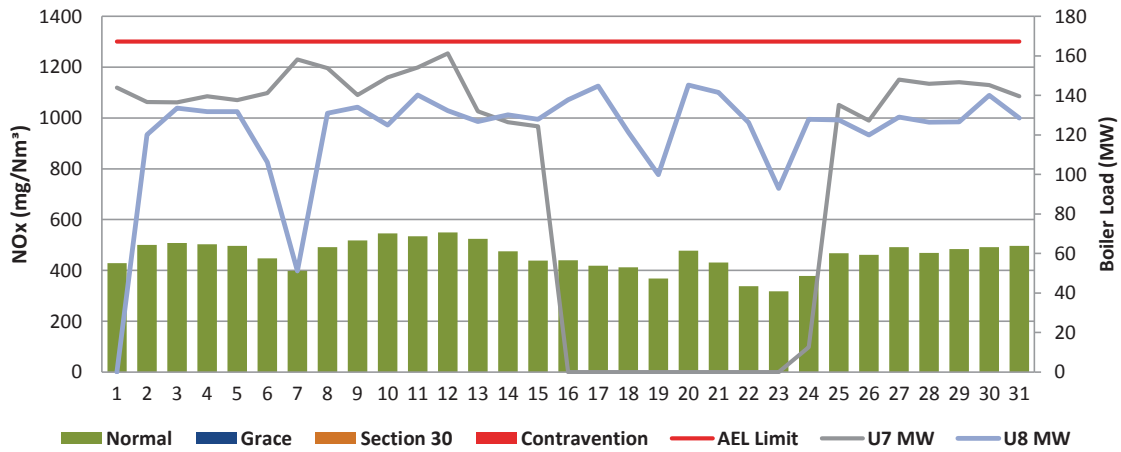




**Figure 11: Camden Stack 3 NOx Emissions - March 2020**



**Figure 12: Camden Stack 4 NOx Emissions - March 2020**



**10 GENERAL / ABNORMALITIES**

**Unit 1:**

None

**Unit 2:**

None

**Unit 3:**

None

**Unit 4:**

Unit off due to ash dam constraints

**Unit 5:**

The unit was expected to return from GO in late December but during RTS & commissioning further issues were discovered so the unit had to be shutdown again.

**Unit 6:**

Unit off due to ash dam constraints

**Unit 7:**

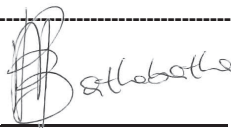

None

**Unit 8:**

None

Please note stack 2 reporting is done in line with the letter sent to GSDM

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 <u>Engineering Manager</u>	<u>08/05/2020</u> Date	 <u>Environmental Manager</u>	<u>08/05/2020</u> Date
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Compiled by: Environmental Department & verified by Boiler Eng

Env. Practitioner & System Eng

For: Department of Environmental Affairs and Tourism

Chief Air Pollution Control Officer

Copies: Eskom Environmental Management

D Herbst  
B Mccourt

Group Technology Engineering

R Rampiar  
E Patel

Camden Power Station:

Engineering Manager  
Operating Manager  
Maintenance Manager  
Unit Production Manager  
Boiler Engineering Manager  
System Engineer  
Environmental Officer  
Performance and Test  
Production Manager