



Generation

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Total number of pages:

16

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Total number of annexes:

## MATLA POWER STATION

Atmospheric Emission License 17/4/AEL/MP312/11/14

~~BOILER ENGINEERING MANAGER~~

~~DATE~~

~~ENVIRONMENTAL MANAGER~~

~~DATE~~

~~ENGINEERING MANAGER~~

~~DATE~~

MONTHLY EMISSIONS REPORT FOR MATLA POWER STATION  
 Atmospheric Emission License 17/4/AEL/MP312/11/14  
 REPORTING MONTH June-2019

1 PARTICULATE EMISSIONS

EMISSION LIMIT: North U5 & U6: 100 mg/Nm<sup>3</sup> South Stack: 200 mg/Nm<sup>3</sup>  
 North U4: 200 mg/Nm<sup>3</sup>

2 GASEOUS EMISSIONS

EMISSION LIMIT: North Stack: South Stack  
 NOx 1200 mg/Nm<sup>3</sup> 1200 mg/Nm<sup>3</sup>  
 SO<sub>2</sub> 3500 mg/Nm<sup>3</sup> 3500 mg/Nm<sup>3</sup>

1 RAW MATERIALS AND PRODUCTS

Raw Materials and Products used	Raw Material Type	Units	Maximum Permitted Consumption/ Rate (Quantity)	Consumption/ Rate June-2019
	Coal	Tons/month		1 475 000
Fuel Oil	Tons/month		2 500	1785.77

Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of June-2019
	Energy	GWh		2484
Ash	Tons/month		471000	255619
RE PM	kg/MWh		not specified	1.006

2 ABATEMET TECHNOLOGY

Associated Unit/Stack	Technology Type	Efficiency (%) for Jun-2019	Reliability (%) June-2019			
			PM	SO <sub>2</sub>	NO	CO <sub>2</sub>
South Stack	ESP	99.3%	90.3	83.4	83.7	
Unit 4	ESP	98.1%	86.2	95.7	95.7	
Unit 5	ESP	99.8%	84.3	83.4	83.7	
Unit 6	ESP	99.4%	71.9	87.9	88.1	

### 3 ENERGY SOURCE CHARACTERISTICS

Characteristic	Stipulated Range (Unit)	Monthly Average Content
CV Content	16-24 (MJ/kg)	
Sulphur Content	0.8-1.1 (%)	1.00
Ash Content	21-40 (%)	25.99

### 4 EMISSION PERFORMANCE

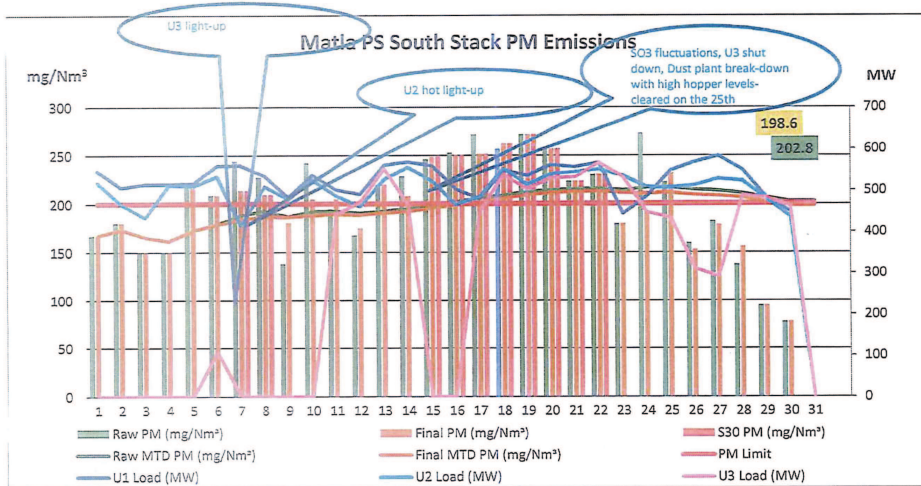


Figure 1. PM emissions (daily averages) for the month of June-2019 against emission limit for the South Stack

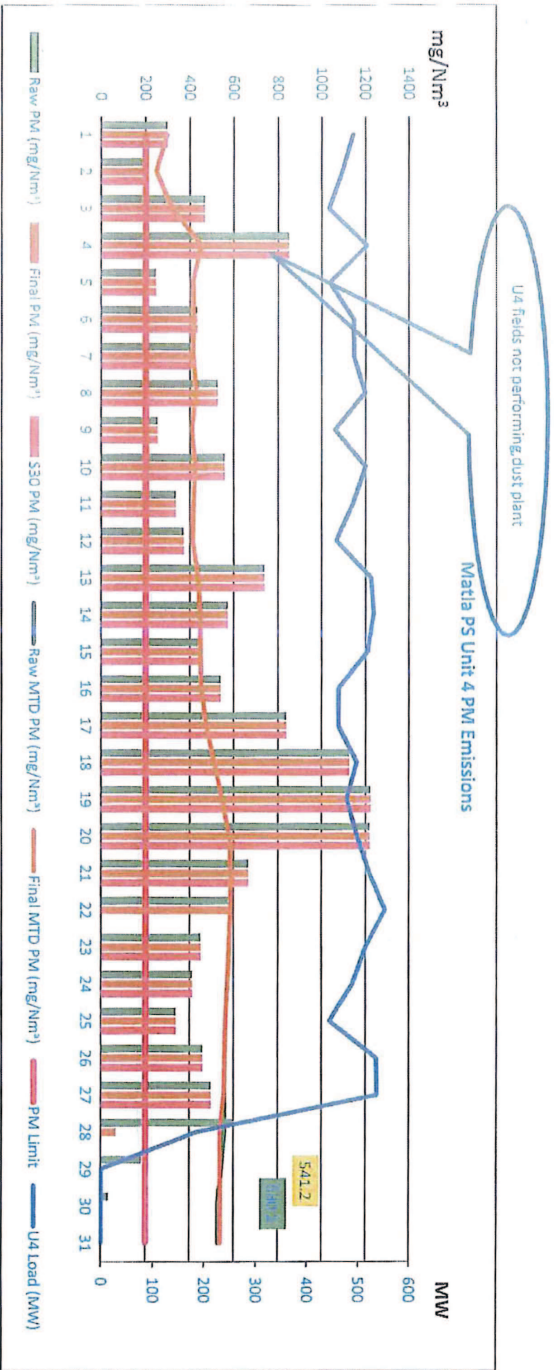


Figure 2. PM emissions (daily averages) for the month of June-2019 against emission limit for Unit 4

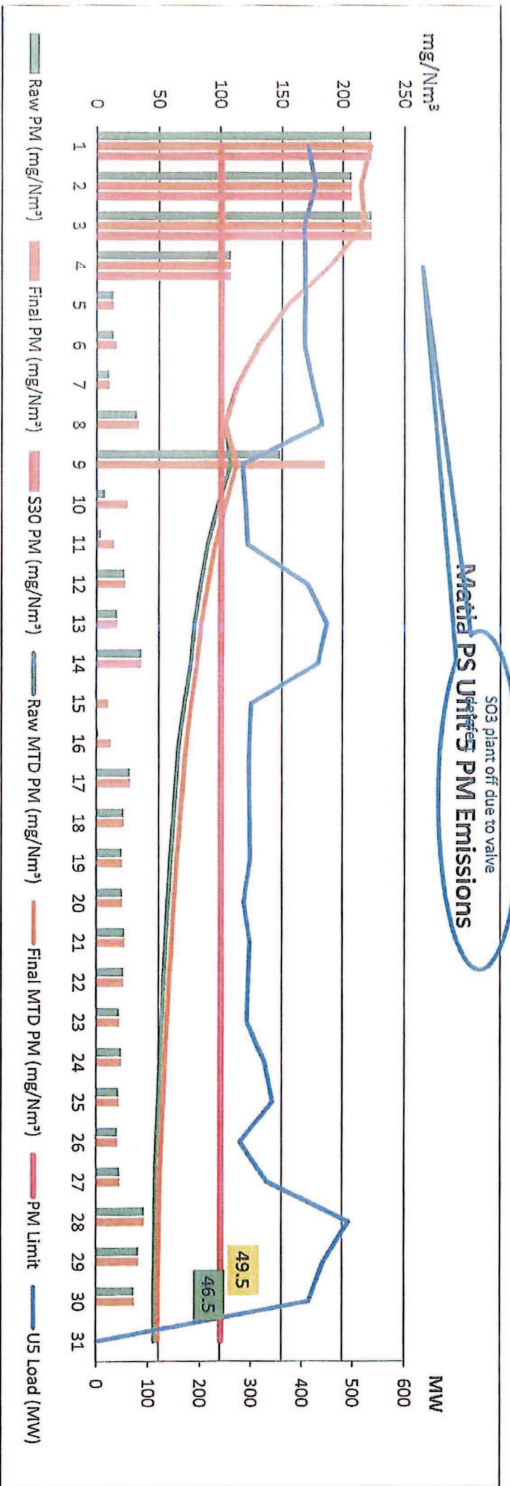


Figure 3. PM emissions (daily averages) for the month of June-2019 against emission limit for Unit 5

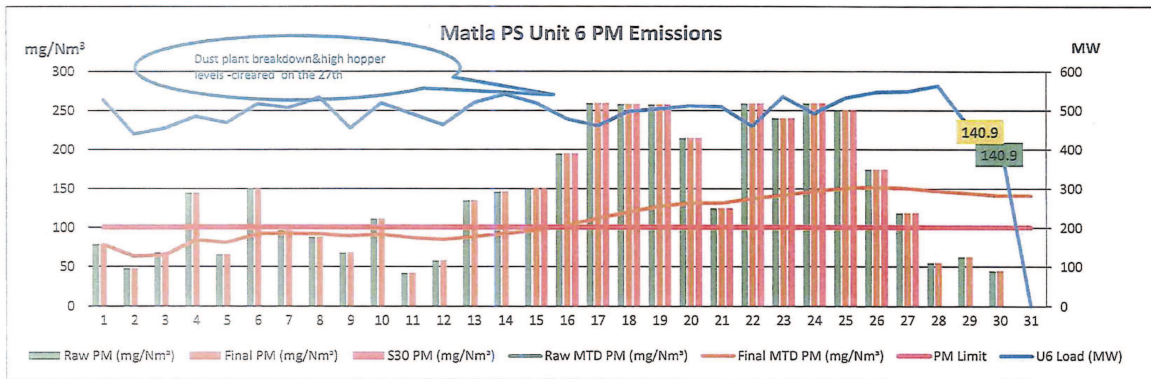


Figure 4. PM emissions (daily averages) for the month of June-2019 against emission limit for Unit 6

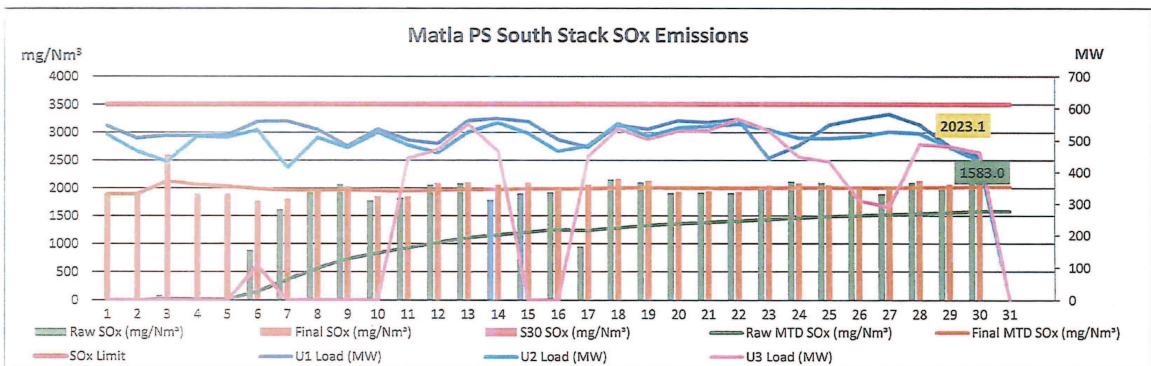


Figure 5. SO<sub>2</sub> emissions (daily averages) for the month of June-2019 against emission limit for the South Stack

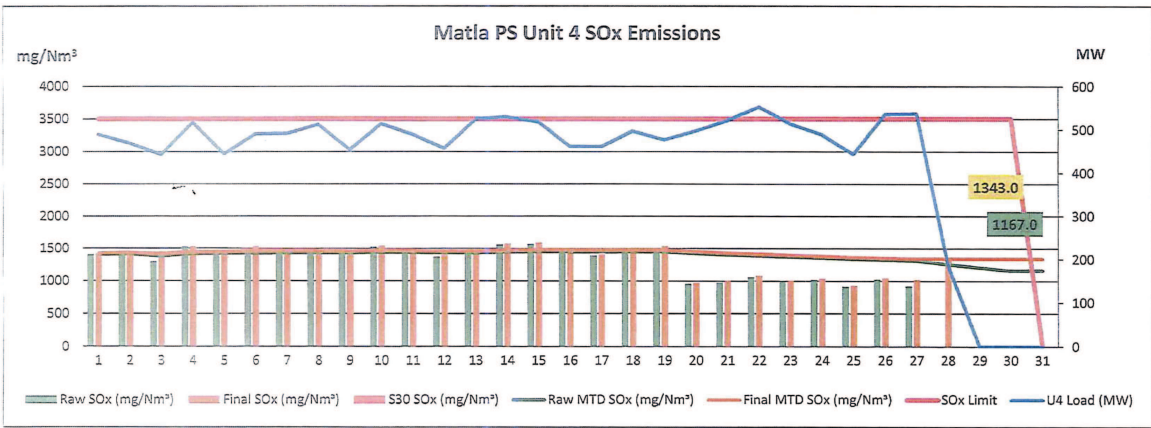


Figure 6. SO<sub>2</sub> emissions (daily averages) for the month of June-2019 against emission limit for Unit 4

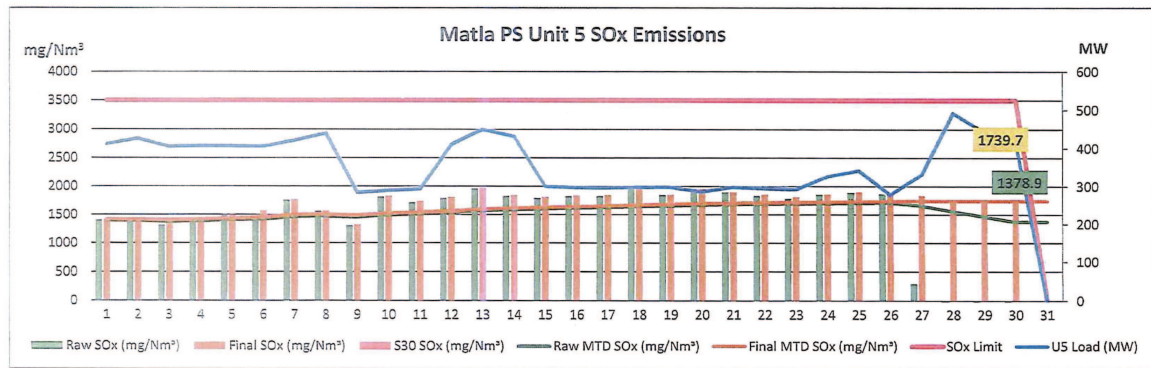


Figure 7. SO<sub>2</sub> emissions (daily averages) for the month of June-2019 against emission limit for Unit 5

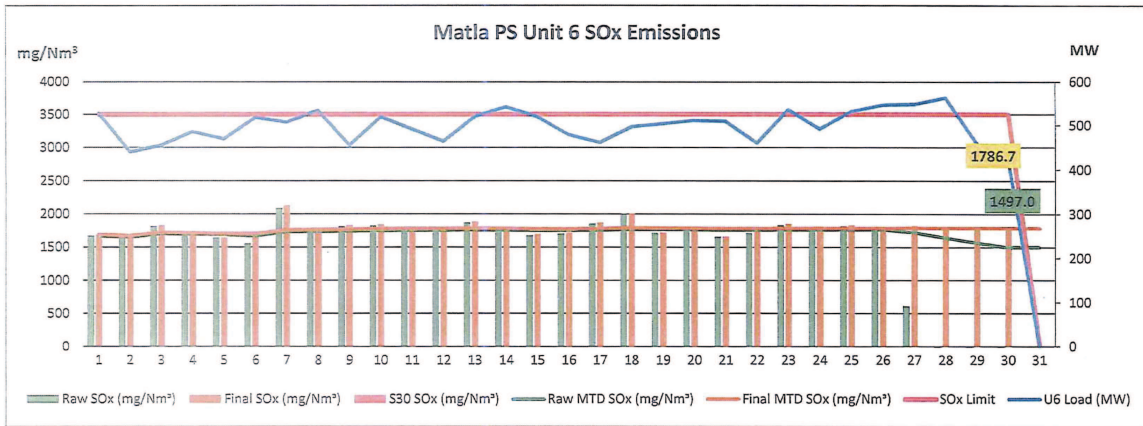


Figure 8. SO<sub>2</sub> emissions (daily averages) for the month of June-2019 against emission limit for Unit 6

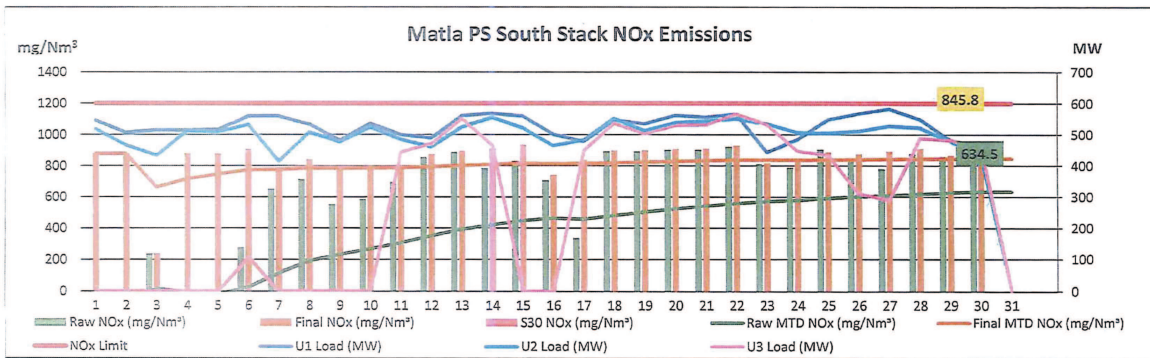


Figure 9. NOx emissions (daily averages) for the month of June-2019 against emission limit for the South Stack

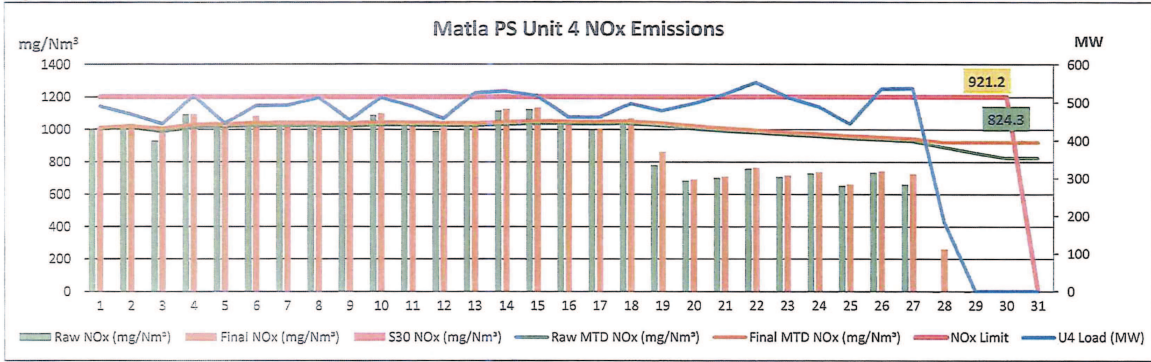


Figure 10. NOx emissions (daily averages) for the month of June-2019 against emission limit for Unit 4

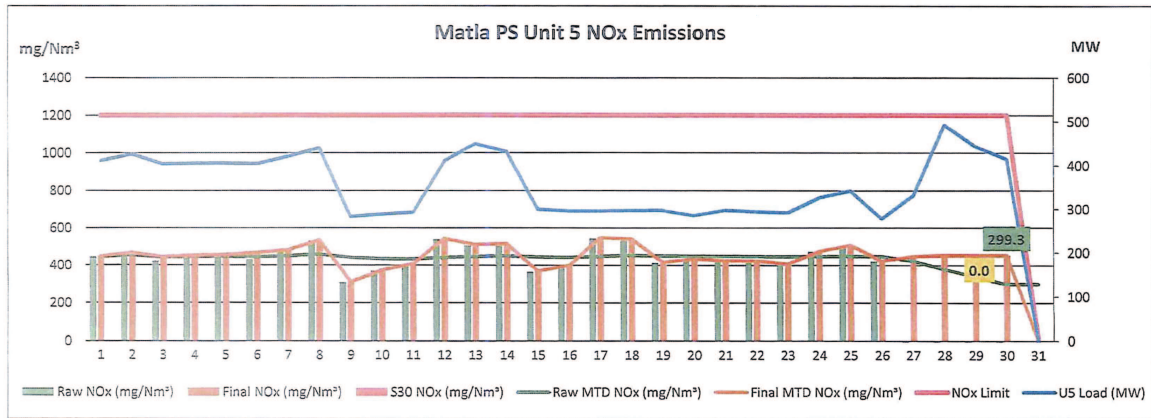




Figure 11. NOx emissions (daily averages) for the month of June-2019 against emission limit for Unit 5

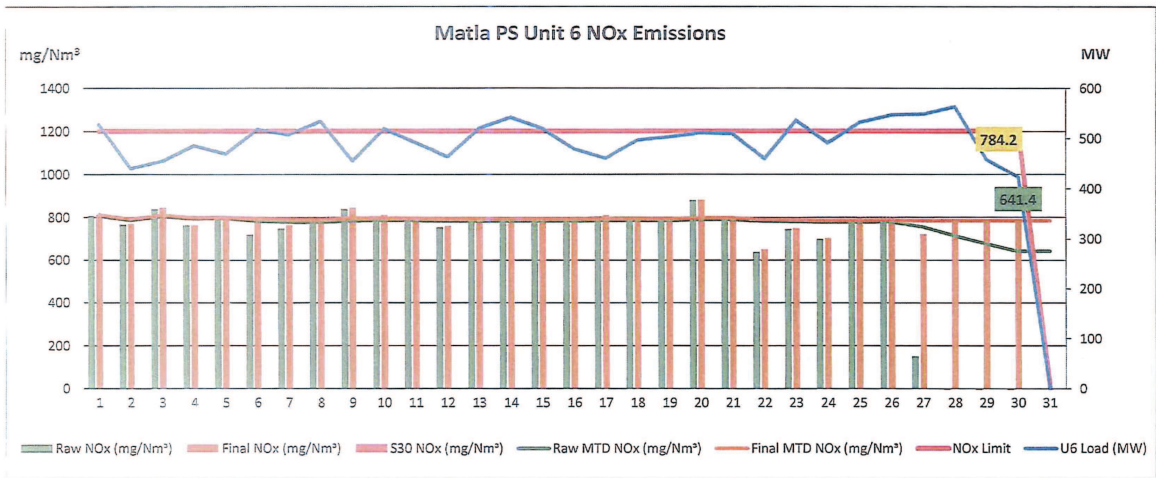


Figure 12. NOx emissions (daily averages) for the month of June-2019 against emission limit for Unit 6

Table 4: Monthly tonnages for the month of June-2019

Unit	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>2</sub> (tons)	CO <sub>2</sub> (tons)
1	316.1	3 199.5	1 343.5	
2	315.5	3 213.5	1 348.7	
3	139.6	1 471.7	633.3	
4	713.0	1 705.3	1 200.7	
5	56.5	2 047.7	538.1	
6	259.3	3 298.3	1 448.0	
SUM	1 800.0	14 936.1	6 512.3	

Table 5: Each unit and respective days operating under normal operation, days in grace period, and section 30 days respectively

Unit	Operating Days (DD:HH:MM)			
	Normal operation	In grace period	Under S 30	Unit off load
1	26:06:50	02:00:00	10:10:00	00:00:00
2	29:13:30	00:00:00	00:00:00	00:10:30
3	12:19:45	02:00:00	01:17:00	13:11:15
4	00:02:40	04:00:00	16:00:00	02:23:20
5	21:04:00	03:00:00	05:20:00	00:00:00
6	15:15:00	02:00:00	12:09:00	00:00:00

5 LIGHT UP INFORMATION

Table 6. PM Start-up information for the month of June-2019

South Stack	Event 1		Event 2		Event 3		Event 4		Event 5
Unit No.	Unit 2		Unit 3		Unit 3		Unit 3		no event
Fires in	10:30 AM	2019/06/07	05:55 AM	2019/06/09	06:50 PM	2019/06/16	01:10 AM	2019/06/24	
Synch. to Grid	06:05 PM	2019/06/07	01:45 AM	2019/06/11	10:20 AM	2019/06/17	06:35 AM	2019/06/24	
Emissions > limit from Synch. (Date and Time)	12:00 AM	2019/06/09	09:00 PM	2019/06/11	12:00 AM	2019/06/23	12:00 AM	2019/06/26	
Fires in to Synch.	00:07:35	Hrs (dd:hh:mm)	01:19:50	Hrs (dd:hh:mm)	00:15:30	Hrs (dd:hh:mm)	00:05:25	Hrs (dd:hh:mm)	
Emissions < limit from Synch. (Duration)	01:05:55	Hrs (dd:hh:mm)	00:19:15	Hrs (dd:hh:mm)	05:13:40	Hrs (dd:hh:mm)	01:17:25	Hrs (dd:hh:mm)	
South Stack ...cont.	Event 6		Event 7		Event 8		Event 9		Event 10
Unit No.	no event		no event		no event		no event		no event
Fires in									
Synch. to Grid									
Emissions > limit from Synch. (Date and Time)									
Fires in to Synch.		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)	
Emissions < limit from Synch. (Duration)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)	

Event No.	Event 1	Event 2	Event 3	Event 4	Event 5
Unit No.4	no event	no event	no event	no event	no event
Fires in					
Synch. to Grid					
Emissions > limit from Synch. (Date and Time)					
Fires in to Synch.	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)
Emissions < limit from Synch. (Duration)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)

Event No.	Event 1	Event 2	Event 3	Event 4	Event 5
Unit No.5	no event	no event	no event	no event	Unit 5
Fires in					2019/05/27 17:00:00 PM
Synch. to Grid					12:00 AM
Emissions > limit from Synch. (Date and Time)					not > limit
Fires in to Synch.	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)
Emissions < limit from Synch. (Duration)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm) not > limit

Event No.	Event 1	Event 2	Event 3	Event 4	Event 5
Unit No.6	no event	no event	no event	no event	no event
Fires in					
Synch. to Grid					
Emissions > limit from Synch. (Date and Time)					
Fires in to Synch.	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)
Emissions < limit from Synch. (Duration)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)

Table 7. Point Source emissions released during start-up (fires-in) for the month of June-2019 in mg/Nm<sup>3</sup>

South Stack Emission Average from Fires-in to Synchronisation (Date and Time)