

1 PARTICULATE EI PARTICULATE EMISSIONS

EMISSION LIMIT: North Stack: 75 mg/Nm³ South Stack: 75 mg/Nm³

2 GASEOUS EMISSIONS

EMISSION LIMIT: North Stack: 1200 mg/Nm³ South Stack 1200 mg/Nm³
 3500 mg/Nm³ 3500 mg/Nm³

1 RAW MATERIALS AND PRODUCTS

Raw Materials and Products used	Raw Material Type	Units	Maximum Permitted Consumption/ Rate (Quantity)	Consumption/ Rate in Month of August-2018
	Coal	Tons/month	820 000	444 195.0
Fuel Oil	Tons/month	3 200	2582.67	
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of August-2018
	Energy	GWh	1488	672.06
	Ash	Tons/month	290 000	96 701
	RE PM	kg/MWh	not specified	0.106

2 ABATEMET TECHNOLOGY

Associated Unit/Stack	Technology Type	Actual Performance(%) for the month of August-2018
Unit 1	FFP	Unit Off-line
Unit 2	FFP	99.84%
Unit 3	FFP	Unit Off-line
Unit 4	FFP	99.94%
Unit 5	FFP	99.93%
Unit 6	FFP	99.81%
Unit 7	FFP	99.89%
Unit 8	FFP	99.96%
Unit 9	FFP	99.92%
Unit 10	FFP	99.93%

3 ENERGY SOURCE CHARACTERISTICS

Characteristic	Stipulated Range (Unit)	Monthly Average Content
CV Content	16-24 (MJ/kg)	
Sulphur Content	0.6 to < 1 (%)	1.09
Ash Content	31 to < 35 (%)	21.77

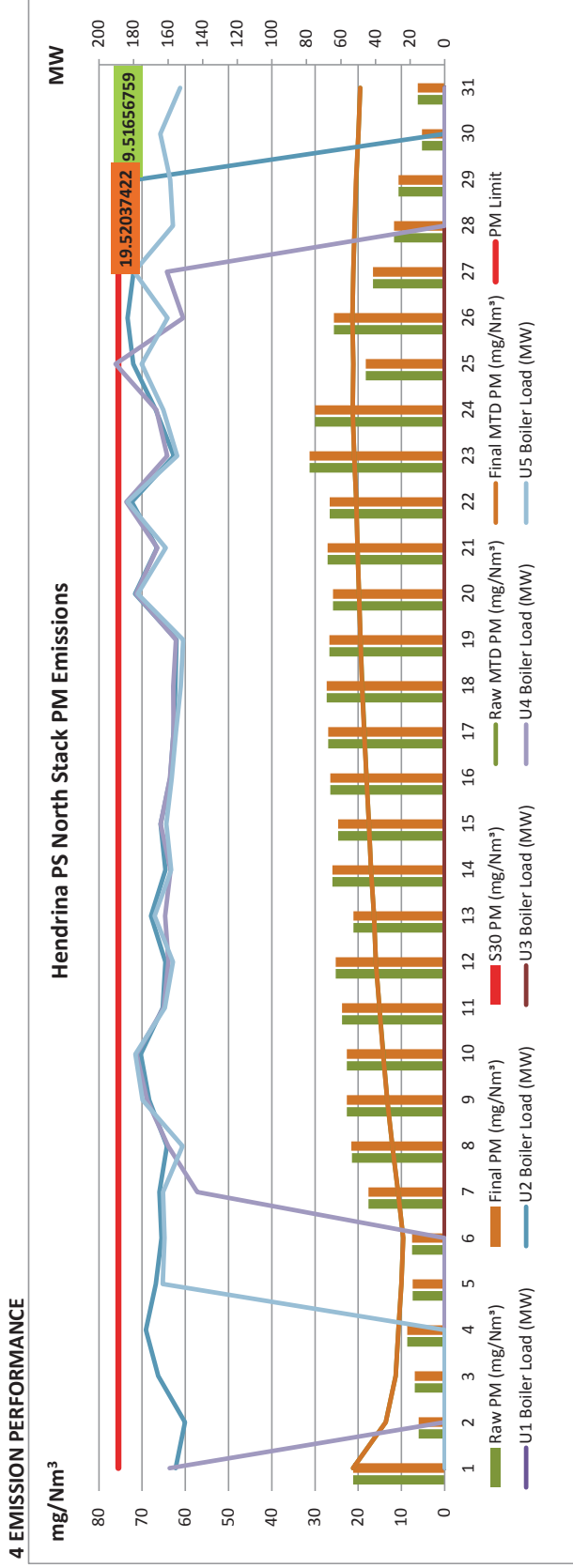


Figure 1. PM emissions (daily averages) for the month of August-2018 against emission limit for the North Stack

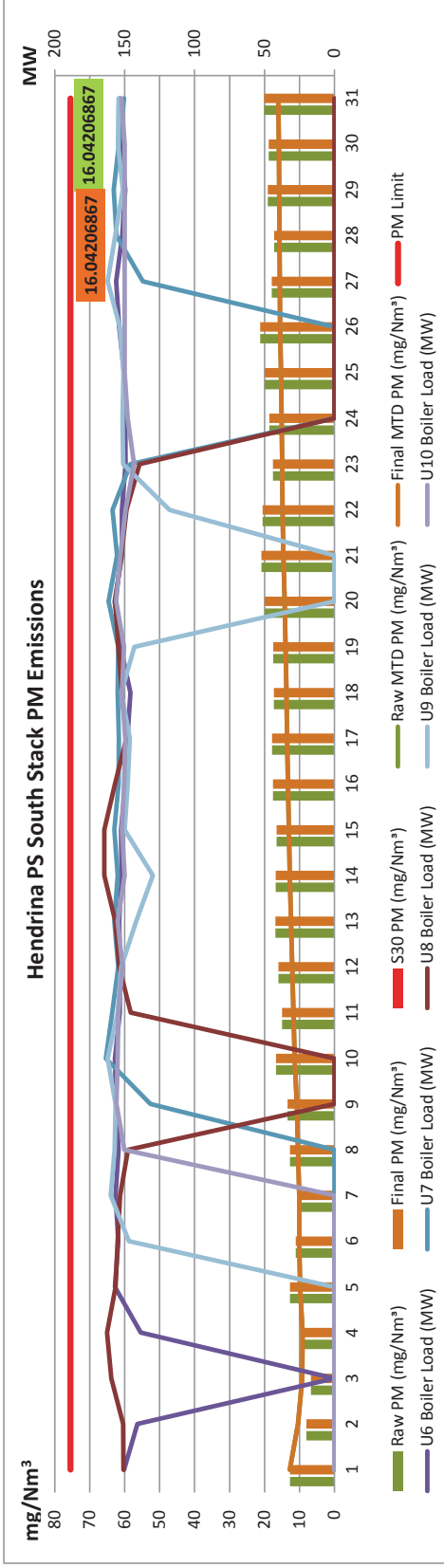


Figure 2. PM emissions (daily averages) for the month of August-2018 against emission limit for the South Stack

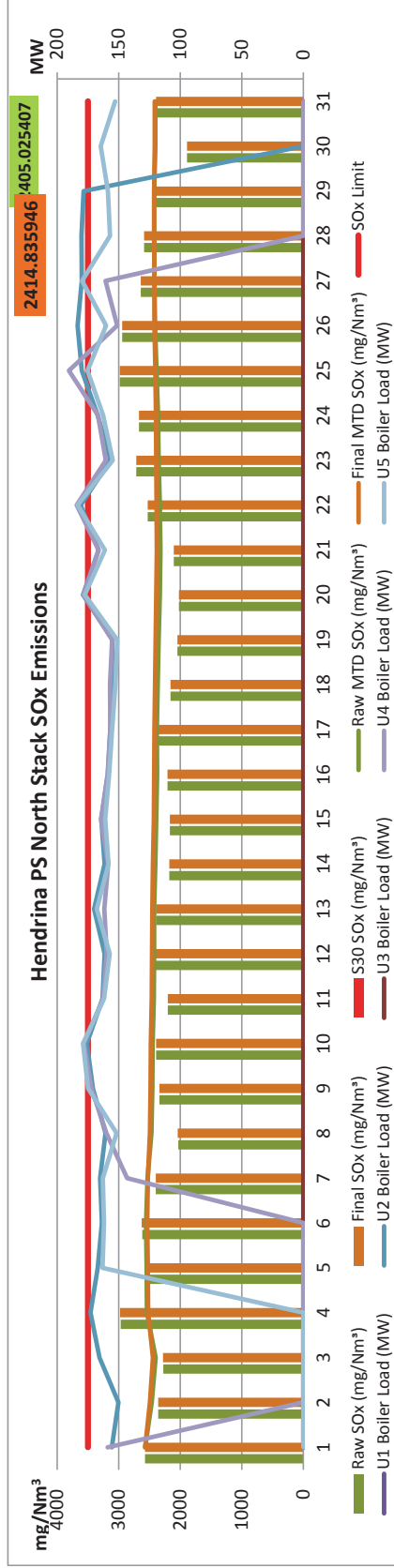


Figure 3. SO₂ emissions (daily averages) for the month of August-2018 against emission limit for the North Stack

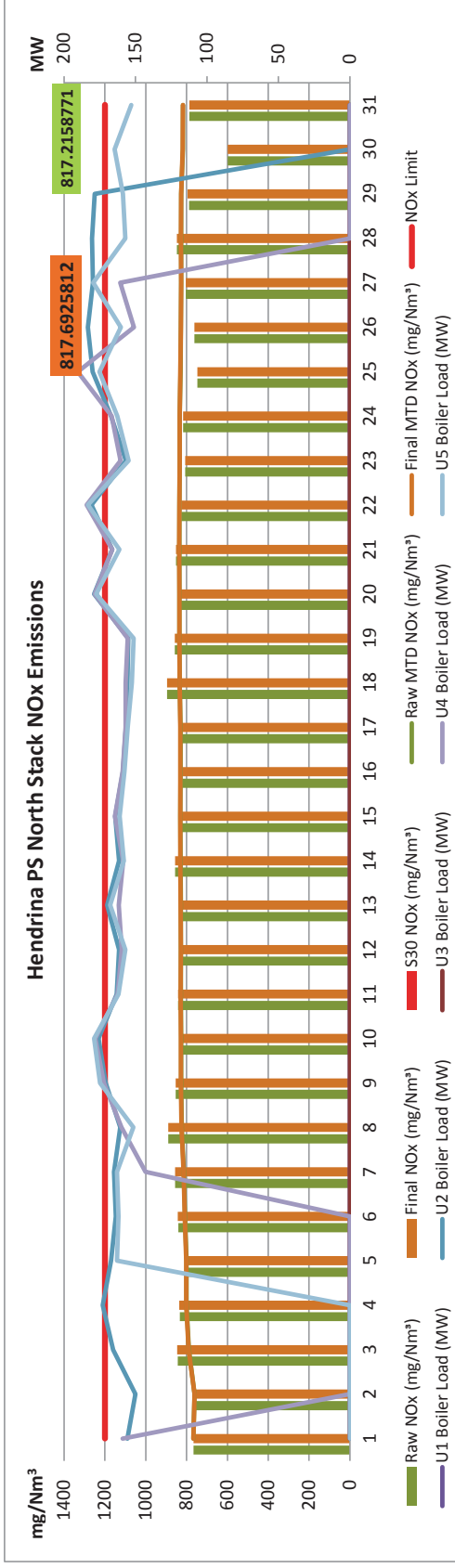


Figure 4. NO_x emissions (daily averages) for the month of August-2018 against emission limit for the North Stack

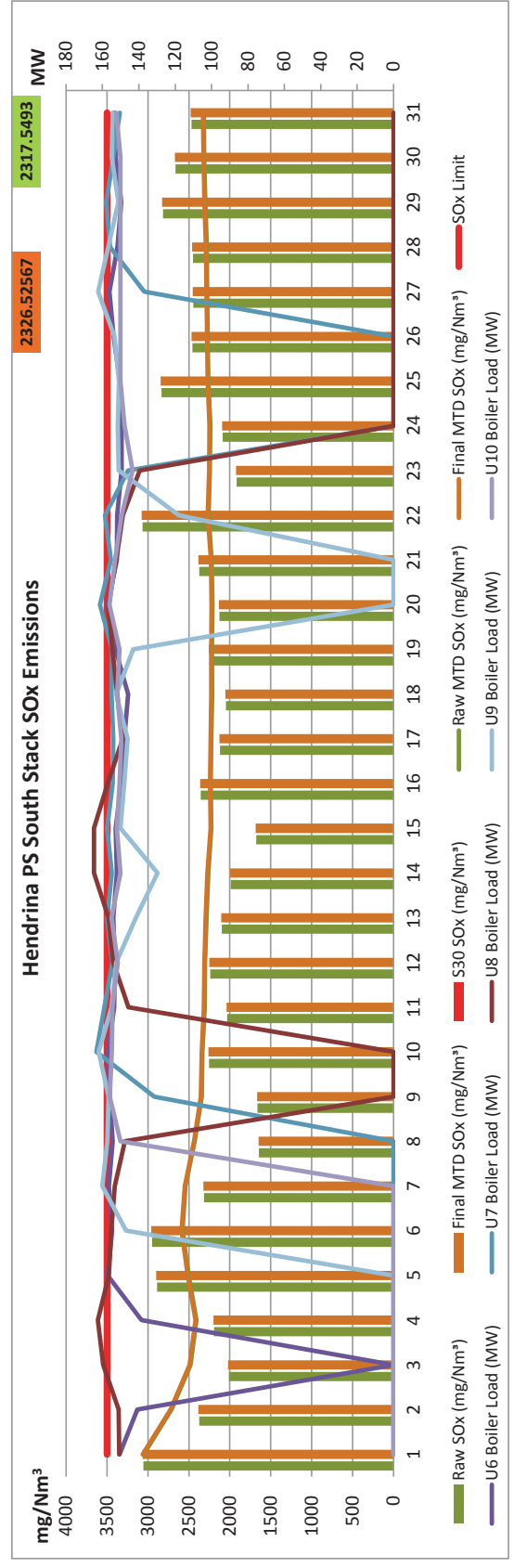


Figure 5. SO₂ emissions (daily averages) for the month of August-2018 against emission limit for the North Stack

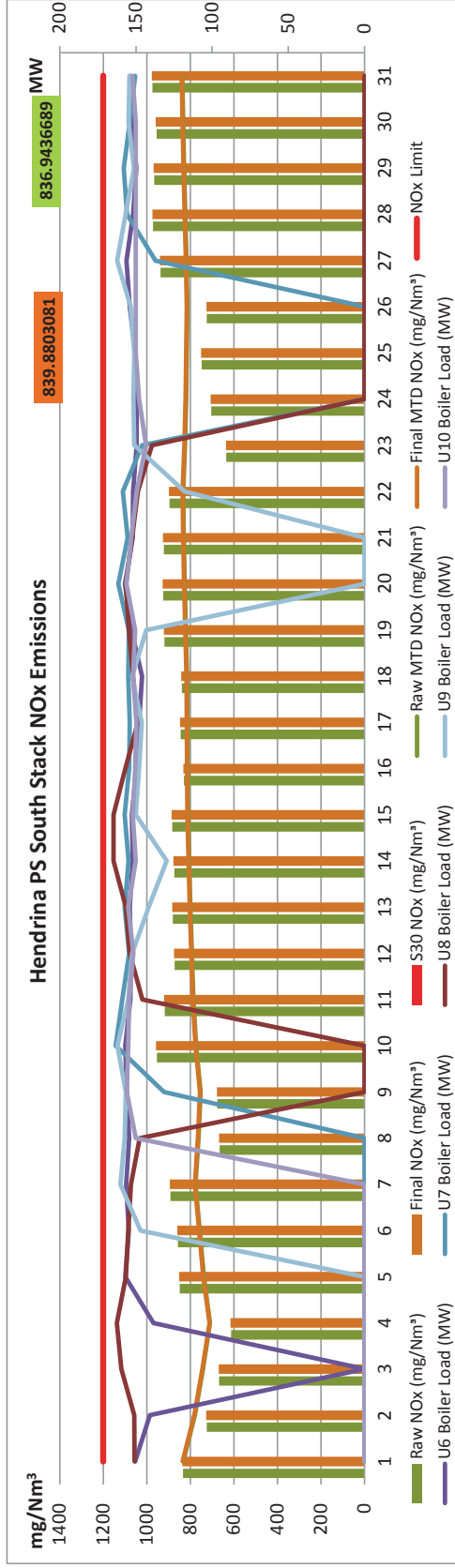


Figure 6. NO₂ emissions (daily averages) for the month of August-2018 against emission limit for the North Stack

Table 4: Monthly tonnages for the month of August-2018

Emission Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO (tons)	CO ₂ (tons)
North Stack	32.1	3 627.4	1 250.5	127.0	
South Stack	39.4	5 849.0	2 189.8	149.4	
SUM	71.4	9 476.4	3 440.3	276.5	

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

Unit	Normal operation	Operating Days (DD:HH:MM)		
		In grace period	Under S 30	Unit off load
1	00:00:00	00:00:00	00:00:00	31:00:00
2	28:20:55	00:00:00	00:00:00	02:03:05
3	00:00:00	00:00:00	00:00:00	31:00:00
4	19:19:35	00:00:00	00:00:00	11:04:25
5	26:14:15	00:00:00	00:00:00	04:09:45
6	28:15:20	00:00:00	00:00:00	02:08:40
7	18:03:35	00:00:00	00:00:00	12:20:25
8	19:18:05	00:00:00	00:00:00	11:05:55
9	21:19:25	00:00:00	00:00:00	09:04:35
10	23:19:55	00:00:00	00:00:00	07:04:05

5 LIGHT UP INFORMATION

Table 6: PM Start-up information for the month of August-2018

North Stack	Event 1	Event 2	Event 3	Event 4	Event 5
Unit No.	Unit 4	Unit 5	no event	no event	no event
Fires in	06:10 PM	09:40 PM	2018/08/06	2018/08/04	
Synchronisation with Grid	06:10 AM	09:40 AM	2018/08/07	2018/08/05	
Emissions below limit from Sync (Date and Time)	did not exceed limit	did not exceed limit	did not exceed limit	did not exceed limit	
Fires in to synchronization	00:12:00	00:12:00	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)
Synchronization to < limit (Duration)			Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)

North 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					
Synchronisation with Grid					
Emissions below limit from Sync					

Fires in to synchronization to < limit	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)
	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)	Hrs (dd:hh:mm)

South Stack	Event 1		Event 2		Event 3		Event 4		Event 5	
Unit No.	Unit 6		Unit		Unit 7		Unit 9		Unit 9	
Fires in	08:20 AM	2018/08/04	08:40 AM	2018/08/09	09:00 AM	2018/08/27	12:20 AM	2018/08/06	11:50 AM	2018/08/22
Synchronisation with Grid	02:20 PM	2018/08/04	02:40 PM	2018/08/09	01:00 PM	2018/08/27	06:20 AM	2018/08/06	05:50 PM	2018/08/22
Emissions below limit from Sync	did not exceed limit	did not exceed limit	did not exceed limit	did not exceed limit	did not exceed limit	did not exceed limit	did not exceed limit	did not exceed limit	did not exceed limit	did not exceed limit
Fires in to synchronization	00:06:00	Hrs (dd:hh:mm)	00:06:00	Hrs (dd:hh:mm)	00:04:00	Hrs (dd:hh:mm)	00:06:00	Hrs (dd:hh:mm)	00:06:00	Hrs (dd:hh:mm)
Synchronization to < limit		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)

South Stack ... cont.	Event 6		Event 7		Event 8		Event 9		Event 10	
Unit No.	Unit		no event		no event		no event		no event	
Fires in	2018/08/07 22:00:00 PM	2018/08/07 22:00:00 PM								
Synchronisation with Grid	04:00 AM	2018/08/08								
Emissions below limit from Sync	did not exceed limit	did not exceed limit								
Fires in to synchronization	#VALUE!	Hrs (dd:hh:mm)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)		Hrs (dd:hh:mm)
Synchronization to < limit		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 August-2018 in mg/Nm³

North Stack Emission Average from Fires-in to Synchronisation (Date and Time)						
Unit	Fires-In	Synchronisation	PM	SO ₂	NO _x	
Unit 4	2018/08/06 06:10 PM	2018/08/07 06:10 AM	8.5	2453.4	789.5	
Unit 5	2018/08/04 09:40 PM	2018/08/05 09:40 AM	8.2	2423.3	775.8	
no event						
no event						
no event						
no event						
no event						
no event						
no event						
no event						

South Stack Emission Average from Fires-in to Synchronisation (Date and Time)						
Unit	Fires-In	Synchronisation	PM	SO ₂	NO _x	
Unit 6	2018/08/04 08:20 AM	2018/08/04 02:20 PM	7.7	88.4	839.0	
Unit 7	2018/08/09 08:40 AM	2018/08/09 02:40 PM	12.7	109.5	839.0	
Unit 7	2018/08/27 09:00 AM	2018/08/27 01:00 PM	16.8	97.0	839.8	
Unit 9	2018/08/06 12:20 AM	2018/08/06 06:20 AM	10.4	90.6	836.5	
Unit 9	2018/08/22 11:50 AM	2018/08/22 05:50 PM	19.8	117.8	835.4	
Unit 10	2018/08/07 22:00:00 PM	2018/08/08 04:00 AM				
no event						
no event						
no event						
no event						

Table 8. Point Source emissions released during Shut-down (SD) for the month of August-2018 in mg/Nm³

North Stack Emission Average Breaker Open (BO) to Draft Group Shut Down (SD) (Date & Time)						
Unit	Breaker Open	DG SD	PM	SO ₂	NO _x	
Unit 4	2018/08/01 03:05 PM	2018/08/01 05:25 PM	13.8	2347.2	858.4	
no event						
no event						
no event						
no event						
no event						

6 EMERGENCY GENERATION

Emergency Generation *[This is only required for stations that are requested to report on this information]*

Table 8. Emergency Generation per unit for the month of August-2018

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Emergency Generation hours declared by national Control										
Emergency Hours declared including hours after stand down										
Hours over the Limit during Emergency Generation										

Table 9. Complaints for the month of August-2018

Received? (Yes/ No)	Source Code/ Name	Root Cause Analysis	Calculation of Impacts/ emissions associated with	Dispersion modeling of pollutants where	Measures implemented to prevent reoccurrence	Date by which measure will be implemented
No						

8 Monitor availability (%)

	Particulate Matter	SOx	NOx	CO	CO ₂	O ₂	H ₂ O	Pressure
North Stack	100.0	97.3	100.0	100.0		98.0	100.0	100.0
South Stack	100.0	100.0	100.0	100.0		90.1	100.0	100.0

9 General

unit 1 and 3 on cold reserve (off)

Environmental Department Date Boiler Engineering Date

PSM _____ Date