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Date:
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Enquiries:
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Ref: GOU/2025/03

Dear Dr Schoeman

GOURIKWA POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF MARCH 2025

This serves as the monthly report required in terms of Section 9 in Gourikwa Power Station's Atmospheric Emission License (WCED013). The report addresses the period from 1-31 March 2025 and covers Particulate Matter, CO, SO₂ and NO_x (as NO₂) emissions.

1. Raw Materials and Products

Table 1: Quantity of Raw Materials and Products used/produced in Normal Operation

Raw Materials and Products	Raw Material Type	Units	Max Permitted Consumption Rate/unit/hour	Consumption Rate per unit/hr March 2025	Station fuel consumption for March 2025
	Diesel	Litres	40 000	Unit 11: 37 177.05 Unit 12: 32 472.76 Unit 13: 36 148.41 Unit 21: 37 180.02 Unit 22: 36 908.02	70 548 477.29
Production Rates	Product/By-product	Units	Max Production Capacity Permitted/unit	Production capacity per unit	Station Production Rate: March 2025
	Energy	MW	170	Unit 11: 56238.00 Unit 12: 26617.50 Unit 13: 48114.30 Unit 21: 41080.50 Unit 22: 56393.30	228 443.60

2. Abatement Technology

Table 2: Abatement Equipment Control Technology utilisation for the month of March

Associated Unit/Stack	Technology Type	Actual Utilisation (%) for the month
Unit 11	Low NOx burners	100%
Unit 12	Low NOx burners	100%
Unit 13	Low NOx burners	100%
Unit 21	Low NOx burners	100%
Unit 22	Low NOx burners	100%

3. Emissions Reporting

Table 3: Total monthly emission rates and Licence limits

	Date & time	CO (mg/N m ³)	NO _x (mg/Nm ³)	PM (mg/Nm ³)	SO ₂ (mg/Nm ³)
Hourly Licence Limit mg/Nm³			250	50	500
Unit 11	2025/03/01	1.24	66.12	0.5	11.54
	2025/03/02	0.97	57.57	0.1	14.07
	2025/03/03	2.83	80.8	0.09	15.02
	2025/03/04	4.37	80.2	0.09	5.07
	2025/03/05	4.49	77.89	0.09	0.04
	2025/03/06	4.97	77	0.09	0
	2025/03/07	4.38	113.56	0.12	0.75
	2025/03/08	2.17	128.85	0.09	0.59
	2025/03/09	1.3	160.4	0.1	1
	2025/03/10	3.63	150.31	0.13	6.76
	2025/03/11	1.71	150.33	0.16	5.28
	2025/03/12	5.78	148.44	0.16	15.97
	2025/03/13	3.08	145.17	0.1	14.52
	2025/03/15	2.91	92.63	0.1	9.2
	2025/03/16	0.73	90.5	0.09	0.76
	2025/03/18	0.5	2.2	0.1	1.68
	2025/03/19	0.71	96.63	0.16	1.25
	2025/03/20	1.48	145	0.19	2.05
	2025/03/21	1.5	143.17	0.13	1.35
	2025/03/22	1.58	134.78	0.19	3.38
	2025/03/24	1.09	144.85	0.2	0.96
	2025/03/25	1.03	151.78	0.2	2.71

	2025/03/26	1.35	148.73	0.2	1.73
	2025/03/27	2.09	140	0.2	2.8
	2025/03/28	0.61	156	0.2	0.43
	2025/03/29	1.4	154.46	0.18	1.54
	2025/03/30	1.31	147.21	0.13	2.68
	2025/03/31	1.4	136.78	01	1.6
Unit 12	2025/03/01	0	0	0	0
	2025/03/02	0	0	0	0
	2025/03/03	0	0	0	0
	2025/03/04	6.32	55.83	0	0.27
	2025/03/05	16.72	145.12	0	0.25
	2025/03/06	18.35	146.5	0	0.28
	2025/03/07	18.92	152.17	0	0.32
	2025/03/08	23.4	149	0	0.25
	2025/03/10	39.42	165.17	0	0.18
	2025/03/11	45.51	159.78	0	0.89
	2025/03/15	48.03	163.38	0	0.19
	2025/03/16	41.51	157.53	0	0.13
	2025/03/19	034.83	173.25	0	0.31
	2025/03/20	37.78	169.18	0	0.31
	2025/03/24	40.89	171.86	0	0.37
	2025/03/25	42.36	170.73	0	0.18
Unit 13	2025/03/01	2.37	169.44	0	0.09
	2025/03/02	3.2	118.33	0	0
	2025/03/03	1.97	162.73	0	1.18
	2025/03/04	3.35	129.12	0	2.61
	2025/03/05	2.51	109.41	0	4.44
	2025/03/06	2.32	175.72	0	1.36
	2025/03/07	1.93	188.06	0	1.64
	2025/03/08	3.67	161	0	0.07
	2025/03/09	2.08	204.5	0	1.58
	2025/03/10	2.85	189.33	0	1.76
	2025/03/11	2.31	196.11	0	0.65
	2025/03/12 1	3.65	192.71	0.01	5.61

	2025/03/13	157	197.83	0	0.07
	2025/03/15	0.4	169	0	0
	2025/03/16	1.41	171.19	0	0.46
	2025/03/19	1.69	193.73	0	1.45
	2025/03/20	1.41	201.12	0	2.77
	2025/03/21	2	195.8	0	1.42
	2025/03/22	1.92	186.88	0	1.04
	2025/03/24	1.76	217	0	5.03
	2025/03/25	1.81	218.78	0.01	2.42
	2025/03/26	1.54	211.64	0	0.29
	2025/03/27	1.75	226	0	0.05
	2025/03/28	1.65	213.25	0	0.15
	2025/03/29	1.3	212	0	0
Unit 21	2025/03/01	16.84	173.35	60	0.19
	2025/03/02	13	165.8	60	0.54
	2025/03/03	15.77	159.93	60	0.64
	2025/03/04	18.93	158.22	60	0.08
	2025/03/05	18.69	158.39	60	0.02
	2025/03/06	14.41	155.89	60	0.12
	2025/03/07	11.51	166.44	60	0.02
	2025/03/08	10.64	154.2	60	0.4
	2025/03/09	11.94	142.5	60	0
	2025/03/10	12.26	138.5	60	0.17
	2025/03/11	11.87	157.06	60	0.12
	2025/03/12	12.19	162.39	60	0.15
	2025/03/13	11.93	154.17	60	0
	2025/03/16	8.1	131	60	0.2
	2025/03/19	10.13	127.33	60	0.23
	2025/03/20	16.24	125.29	60	0.36
	2025/03/21	16.1	122	60	0
	2025/03/24	8.4	130.86	60	0.23
	2025/03/25	11.37	133.83	60	0.09
	2025/03/26	12.71	135.29	60	0.11
	2025/03/27	13.85	134	60	0.15
Unit 22	2025/03/01	21.47	148.76	0	1.11

	2025/03/02	20.2	146	0	1.5
	2025/03/03	23.58	150.73	0	1.03
	2025/03/04	24.8	147.59	0	1.35
	2025/03/05	24.86	154.12	0	1.16
	2025/03/06	20.54	166.71	0	1.24
	2025/03/07	15.79	175.5	0	1.5
	2025/03/08	15.64	165.14	0	1.29
	2025/03/09	18.78	196.8	0	0.42
	2025/03/10	18.31	185.14	0	0.96
	2025/03/11	16.39	202.95	0	1.53
	2025/03/12	14.22	191.2	0	1.27
	2025/03/13	13.62	180.33	0	0.72
	2025/03/15	12.2	172.63	0	0.68
	2025/03/16	14.7	168.73	0	1.19
	2025/03/18	10.8	180.8	0	0.7
	2025/03/19	14.26	181.53	0	0.91
	2025/03/20	18.29	169.88	0	1.21
	2025/03/22	19.08	163.25	0	0.64
	2025/03/24	16.64	167.57	0	0.21
	2025/03/25	18.24	187.32	0	0.88
	2025/03/26	16.15	182.15	0	0.43
	2025/03/27	15.4	170.89	0	0.92
	2025/03/28	15.77	182.46	0	1.14
	2025/03/29	17.21	197.86	0	1.97
	2025/03/30	16.44	188.36	0	1.2
	2025/03/31	15.22	174.33	0	0.6
Total Emission mass (tons)		17.957	183.27	0	1.218

GT12 recorded zero readings even under normal conditions

Table 4: Each unit and respective days operating under normal operation

Unit	Hours operating under normal operation	Hours of start-up and shut-down	Total
11	360	118	478

12	188	71	259
13	289	104	393
21	247	94	341
22	345	128	473
Total	1429	515	1944

Table 5: Monitoring Equipment-Continuous Emission Monitoring System (CEMS) availability

Associated Unit/Stack	Technology Type	Availability of CEMS	Actual Utilisation/reliability (%) for the month
Unit 11	CEMS	100%	63.33%
Unit 12	CEMS	100%	77.12
Unit 13	CEMS	100%	95.51%
Unit 21	CEMS	100%	100%
Unit 22	CEMS	100%	100%

Note: Continuous Emission Monitoring System (CEMS) is always online unless a fault is reported. The system auto calibrates every four (4) hours and raises an alarm if auto calibration is out of spec. Onsite technicians calibrate the system with calibration gas annually.

Table 6: Average Point Source Emissions released during start-up, maintenance and shut-down for the month of March 2025 in mg/Nm³

Unit	NO _x	SO ₂
11	115.53	4.88
12	114.15	3.09
13	158.04	2.86
21	138.66	1.12
22	166.71	1.53

4. Comments on the performance and availability of each unit

- All 5 units were available to generate power for the month of March 2025
- **Leak Detection and Repair programme-** No leaks were reported during March 2025.

5. Load Factor: 41.56%

6. Complaints Register

Table 7: Complaints

Source Code/ Name	Root Cause Analysis	Calculation of Impacts/ emissions associated with the incident	Dispersion modeling of pollutants where applicable	Measures implemented to prevent reoccurrence	Date by which measure will be implemented
None	N/A	N/A	N/A	N/A	N/A

The rest of the information demonstrating compliance with the emission license conditions is supplied in the annual emission reports sent to your office.

For any related queries, please do not hesitate to contact me on 021 573 6162

Yours sincerely



Pamela Mrubata

GOURIKWA POWER STATION