

MARCH 2025

ANKERLIG POWER STATION MONTHLY EMISSION REPORT
Atmospheric Emission Licence WCCT036





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Air Quality Management
246 Voortrekker Road
Vasco
7460

Date:
19 April 2025

Enquiries:
021 573 6162

Ref: ANK/2025/03

Dear Ian

ANKERLIG 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 Ankerlig Power Station's Atmospheric Emission License (WCCT036). The emissions are for the month of March, these being SO₂, CO₂, PM and NO_x (as NO₂).

1 Raw Materials and Products

Table 1: Quantity of Raw Materials and Products used/produced for the month of March 2025

Raw Materials and Products	Raw Material Type	Units	Max Permitted Consumption Rates/unit	Station Consumption Rate March 2025
	Diesel	Litres	40 000	77 431 735.92
	LPG	Kg	19 per start/unit	
Hours of operation	Permitted Hrs of operation	Total No of hours operated under normal conditions		
	24/7	1655		
Production Rates	Product/By-product	Units	Max Production Capacity Permitted	Production Rate: March 2025
	Energy	MW	150	242 881.21

NB: Figures reported are station figures while the limits are unit based (x9)

Generation Division
Peaking Business Unit
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Table 2: Fuel usage per unit and efficiency

Fuel Usage Per Unit/Hour	Fuel Efficiency
Unit 11: 35 184.49 Unit 12: N/A Unit 21: 38 004.15 Unit 22: 37 101.40 Unit 31: 33 864.25 Unit 32: 37 099.98 Unit 41: 37 169.48 Unit 42: 36 757.84 Unit 43: 37 799.37	Unit 11: 312.27 Unit 12: N/A Unit 21: 309.44 Unit 22: 313.30 Unit 31: 316.53 Unit 32: 319.84 Unit 41: 305.68 Unit 42: 311.95 Unit 43: 311.01

2 Hours of Operation

Table 3: Each unit and respective days operating under normal operation (Please note the units rarely run for the entire day)

Unit	Hours operating under normal operation	Test-run hours	Total
11	56	24	80
12	0	0	0
21	332	54	386
22	205	53	258
31	123	40	163
32	145	47	192
41	296	66	362
42	222	68	290
43	276	67	343
Total	1655	419	2074

3 Abatement Technology

Table 4: Abatement Equipment Control Technology availability for the month of March

Associated Unit	Technology Type	Actual Utilisation (%) for the month of March
Unit 11	Low NOx burners	100%
Unit 12	N/A	N/A
Unit 21	Low NOx burners	100%
Unit 22	Low NOx burners	100%
Unit 31	Low NOx burners	100%
Unit 32	Low NOx burners	100%
Unit 41	Low NOx burners	100%
Unit 42	Low NOx burners	100%
Unit 43	Low NOx burners	100%

Table 5: Tonnages and mg/Nm³ for the month of March

	Date	CO (mg/Nm 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	2025/03/02	0.6	122	0	0.6
	2025/03/10	1.46	112.4	0	1.68
	2025/03/12	0.7	143	0	0.9
	2025/03/19	4.03	139	0	1.58
	2025/03/20	1.13	102.33	0	0.67
	2025/03/24	0.54	64.53	0	1.07
	2025/03/25	0.2	26.2	0	0.5
	2025/03/26	0.92	90.38	0	0.74
	2025/03/27	0.18	27.5	0	0.22
	2025/03/28	0.1	3	0	0.2
	2025/03/30	0.65	130	0	0.7
				0	
Unit 12	N/A				
Unit 21	2025/03/02	1.79	126.88	0	0.43
	2025/03/03	1.97	128.33	0	0.4
	2025/03/04	1.91	117.19	0	0.51
	2025/03/05	2.13	118.27	0	0.85
	2025/03/06	1.88	122.25	0	0.51
	2025/03/07	1.63	129.77	0	0.38
	2025/03/10	1.83	134.56	0	0.67

	2025/03/11	1.92	133.17	0	0.58
	2025/03/12	2.09	125.58	0	0.28
	2025/03/13	2.04	120	0	0.93
	2025/03/15	5.54	95.43	0	3.73
	2025/03/16	1.42	121.75	0	1.75
	2025/03/17	2.32	115.6	0	0.1
	2025/03/18	2.04	136.63	0	0.46
	2025/03/19	1.78	141.21	0	0.55
	2025/03/20	1.98	127.5	0	1.08
	2025/03/21	1.94	112.29	0	0.7
	2025/03/22	1.67	111.5	0	0.15
	2025/03/24	1.81	118.38	0	0.1
	2025/03/25	1.8	119.54	0	0.58
	2025/03/26	1.66	115.71	0	0.46
	2025/03/27	1.77	126.1	0	1.01
	2025/03/28	1.76	125.36	0	0.71
	2025/03/29	1.92	130.53	0	0.62
	2025/03/30	1.83	132.88	0	0.56
	2025/03/31	1.83	107.33	0	1
Unit 22	2025/03/02	0.56	112.75	0	1.99
	2025/03/03	0.93	111	0	0.46
	2025/03/04	0.71	103.4	0	1.91
	2025/03/05	0.43	109	0	0.96
	2025/03/06	0.51	106.72	0	0.61
	2025/03/07	0.6	110.96	0	1.19
	2025/03/10	0.68	123.67	0	0.93
	2025/03/11	0.41	113.5	0	0.95
	2025/03/12	0.69	110	0	0.63
	2025/03/13	0.51	106.63	0	1.35
	2025/03/16	0.72	121.17	0	0.5
	2025/03/18	0.68	117.33	0	0.38
	2025/03/19	0.32	115.2	0	0.33
	2025/03/20	0.42	109.4	0	0.56
	2025/03/21	0.75	98	0	0
	2025/03/24	0.53	105.25	0	0.69
	2025/03/25	0.68	103	0	0
	2025/03/26	0.38	114.2	0	1.1
	2025/03/27	0.86	105.57	0	1.79
	2025/03/28	0.41	108.71	0	0.69
	2025/03/29	0.54	114.47	0	1.12
	2025/03/30	0.5	115.25	0	1.15
	2025/03/31	0.43	98	0	0.36

Unit 31	2025/03/04	0.2	1.5	0	1.7
	2025/03/06	3.48	125.17	0.025	2.66
	2025/03/07	4.21	129.85	0.1	2.45
	2025/03/10	4.72	142.6	0	2.78
	2025/03/12	5.77	129.83	0.05	1.75
	2025/03/13	4.63	115.33	0	2.17
	2025/03/18	4.68	141.5	0.1	1.15
	2025/03/19	6.16	89.09	0.14	5.59
	2025/03/20	5.72	123.6	0.12	2.16
	2025/03/24	3.47	120.29	0.04	2.21
	2025/03/25	3.96	122	0.14	3.14
	2025/03/26	3.78	127.46	0	2.53
	2025/03/27	4.28	116.5	0	1.81
	2025/03/28	5.1	130	0.3	2.7
	2025/03/29	2.09	125.46	0	2.05
	2025/03/30	1.64	118.4	0	1.76
Unit 32	2025/03/03	1.63	150.33	0	0.97
	2025/03/04	1.86	146	0	1.04
	2025/03/05	1.62	149.17	0	0.72
	2025/03/06	1.68	153.25	0	0.61
	2025/03/07	1.82	166.11	0	0.48
	2025/03/10	1.62	173.2	0	1.38
	2025/03/11	1.23	147.67	0	0.03
	2025/03/12	1.63	159.67	0	0
	2025/03/13	1.51	148.5	0	1.08
	2025/03/18	1.63	174.25	0	0.08
	2025/03/19	1.72	157.88	0	0.34
	2025/03/20	1.63	143.75	0	0.28
	2025/03/24	1.68	154	0	1.19
	2025/03/25	1.62	153.2	0	0.74
	2025/03/26	1.62	160.19	0	0.45
	2025/03/27	1.63	147.5	0	0.46
	2025/03/28	1.9	165	0	1.5
	2025/03/30	1.43	147	0	0.37
Unit 41	2025/03/02	7.11	157.88	0	6.24
	2025/03/03	6.26	157.85	0	3.87
	2025/03/04	6.69	143.45	0	6.09
	2025/03/05	6.54	145.8	0	5.69
	2025/03/06	6.47	159.59	0	7.80
	2025/03/07	5.92	169.71	0	8.71
	2025/03/10	4.66	147.75	0	6.63

	2025/03/11	5.44	165.25	0	5.68
	2025/03/12	5.18	158.30	0	3.88
	2025/03/13	6.31	155.29	0	8.83
	2025/03/15	5.37	158.86	0	3.14
	2025/03/16	6.11	154.64	0	5.23
	2025/03/17	5.57	144.67	0	3
	2025/03/18	5.82	166	0	3.14
	2025/03/19	9.24	170.17	0	6.99
	2025/03/20	8.03	142.88	0	4.61
	2025/03/21	6.8	144.14	0	5.06
	2025/03/22	6.93	146	0	6.67
	2025/03/24	5.21	161.38	0	6.54
	2025/03/25	5.2	160.79	0	4.75
	2025/03/26	4.55	150.67	0	3.08
	2025/03/27	5.13	154.9	0	5.38
	2025/03/28	6.69	162.79	0	6.01
	2025/03/29	5.68	160.5	0	5.38
	2025/03/30	4.9	152	0	3.65
	2025/03/31	3.9	127	0	2.83
Unit 42	2025/03/02	4.21	173.13	0.1	0.56
	2025/03/03	3.95	170.83	0.1	0.85
	2025/03/04	3.74	155.59	0.1	0.56
	2025/03/05	3.44	156.85	0.1	0.56
	2025/03/06	3.89	165.94	0.1	0.66
	2025/03/07	3.34	177.5	0.1	0.61
	2025/03/10	3.76	164.25	0.1	0.76
	2025/03/11	3.66	174.07	0.1	0.82
	2025/03/12	4.24	173.18	0.1	0.8
	2025/03/13	3.36	168.29	0.1	0.59
	2025/03/15	4.14	169.14	0.1	0.53
	2025/03/16	3.63	164.5	0.1	3.4
	2025/03/17	2.24	165	0.1	0.5
	2025/03/18	4.56	196	0.1	2.2
	2025/03/19	4.91	181	0.09	2.91
	2025/03/20	4.18	164.79	0.09	1.54
	2025/03/21	3.5	158.33	0.1	1.07
	2025/03/24	4.33	170.25	0.09	2.31
	2025/03/25	2.74	163.2	0.1	0.58
	2025/03/26	2.24	176	0.1	0.54
	2025/03/27	4.89	162.57	0.1	0.6
	2025/03/28	4.56	175.14	0.1	0.97
	2025/03/29	1	31.83	0.07	0.7
	2025/03/30	4.37	166.83	0.1	1.97
	2025/03/31	4.53	150	0.1	1.33

Unit 43	2025/03/02	1.97	112.67	0.12	0.08
	2025/03/03	2.34	20.14	0.11	0.75
	2025/03/04	0.86	67.53	0.1	0.45
	2025/03/05	1.4	104.13	0.1	0.22
	2025/03/06	1.39	113.62	0.11	0.99
	2025/03/07	1.23	125.47	0.1	1.19
	2025/03/10	1.4	113.29	0.1	0.81
	2025/03/11	2.5	114.8	0.1	0.28
	2025/03/12	2.12	111.92	0.11	0.74
	2025/03/13	1.59	112.29	0.1	1.69
	2025/03/15	1.48	98.92	0	3.32
	2025/03/17	2.1	105	0	0.62
	2025/03/18	2.22	123.33	0	0.86
	2025/03/19	1.35	124.55	0	1.55
	2025/03/20	1.41	107	0	1.51
	2025/03/21	1.69	103.71	0	1.2
	2025/03/22	1.35	103.29	0	1.24
	2025/03/24	1.94	116.38	0	0.7
	2025/03/25	1.68	117.43	0	1.09
	2025/03/26	1.98	112.17	0	1.18
	2025/03/28	2.53	115.17	0	1.53
	2025/03/29	1.62	110.72	0.54	0.54
	2025/03/30	1.52	111.2	0.52	1.33
	2025/03/31	2.3	101.67	0.63	1.7
Total Emission mass (Tons)		13.631	245.455	0.034	3.95

Units 11, 21,22 & 32's NOx and SOx monitor read abnormal at times during the month due to the cooler leak. Spares have been ordered and delivery is expected in March 2025

COMMENT: All pollutants measured were within allowed limits and no non-conformances were registered for the month under review.

4 Monitoring Equipment: Continuous Emission Monitoring System (CEMS) availability

Table 6: Actual Utilisation (%) for the month

Associated Unit	Technology Type	Actual Utilisation (%) for the month of March
Unit 11	CEMS	66.07%
Unit 12	CEMS	N/A
Unit 21	CEMS	98.49%
Unit 22	CEMS	93.66%
Unit 31	CEMS	95.12%

Unit 32	CEMS	100%
Unit 41	CEMS	100%
Unit 42	CEMS	97.75%
Unit 43	CEMS	85.51%

Continuous Emissions Monitoring System (CEMS) at GT11's availability was below 80%. Please note that the unit is not operating under any "upset" combustion process and does not pose a risk to the environment.

GT11: 66.07%. Faulty sampling tube. Oxygen being sucked into the piping where joints were made on the tube. Hence the reading is slightly lower. Procurement still ongoing.

GT31 - Analyzer was replaced and availability is above threshold.

GT43 - Cooler was replaced, Availability should increase going forward.

5 Monitoring Equipment Calibration

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.

6 Ambient Monitoring Station

The station's new AEL does not require operation of an ambient monitoring station until decommissioning of Acacia Power Station.

7 Load Factor: 24.41%

8 Leak Detection and Repair programme

No leaks were reported during March 2025

9 Complaints Register

Table 7. Complaints for the month of March 2025

Source Code/ Name	Root Cause Analysis	Calculation of Impacts/ emissions associated with the incident	Dispersion modelling 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

10 General

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

Trusting the above meets the reporting requirements specified within the stations' Atmospheric Emission License.

Do not hesitate to contact Maureen Dlulisa on 021 573 6162 for any related queries.

Yours sincerely



A handwritten signature in black ink, appearing to read 'PMM'.

Pamela Mrubata

ANKERLIG POWER STATION