

Mr. Mcebo Mkhathshwa
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Date:
22 May 2022

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LRP01PLA000_0396/20240415

Dear Mr. Mkhathshwa

LETHABO POWER STATION ANNUAL EMISSION REPORT FOR THE 2023/2024 FINANCIAL YEAR

This serves as Lethabo Power Station's Annual Emission Report as required in terms of section 7.7 in the Atmospheric Emission License issued to Lethabo Power Station.

The emissions reported is for Eskom's 2022/2024 financial year which is from 01 April 2023 to 31 March 2024.

For any additional information please do not hesitate to contact us.

Yours sincerely



Karabo Rakgolela
GENERAL MANAGER

 Eskom	REPORT	Lethabo Power Station
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LRP01PLA000

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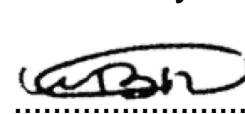
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C & I Eng Manager

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Date: 2024/05/23

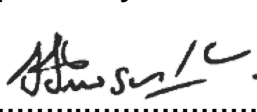
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1 TOTAL EMISSIONS TONNAGES FOR THE 2023/2024 FINANCIAL YEAR

The emissions in the table below are for the 2023/2024 financial year.

Table 1: Total Emissions for 2023/2024 Financial year

Power Station	Coal-fired emissions (tons/annum)	Fuel-oil emissions (tons/annum)	Total (tons/annum)
Lethabo Power Station	PM: 12 602 SO₂: 210 751 NO_x: 102 098	PM: Not Calculated SO₂: 565 NO_x: Not Calculated	PM: 12 602 SO₂: 211 315 NO_x: 102 098

Greenhouse Gases such as CO₂ and N₂O are no longer reported at station level and is included in the Eskom Greenhouse Gas Emissions Report as per the communication from the National Air Quality Officer (see Annexure B).

Eskom Research Technology and Development (RT&D) calculated figures were used for reporting gaseous emissions and are subject to data integrity reviews by external service providers. Particulate Matter (PM) are recorded CEMS data.

2 POLLUTION EMISSION TRENDS:

Table 2: Monthly Emissions Trends 2023/2024 financial year coal fired

Month	PM (tons)	SO₂ (tons)	NO_x (tons)
April 2023	716	13617	6275
May 2023	835	18941	8192
June 2023	689	17845	8260
July 2023	671	16994	9442
August 2023	1045	18196	9717
September 2023	794	19445	9317
October 2023	962	22883	10889
November 2023	1666	19721	9922
December 2023	1639	16214	7931
January 2024	1450	20557	9931
February 2024	933	16626	7674
March 2024	1202	9710	4547

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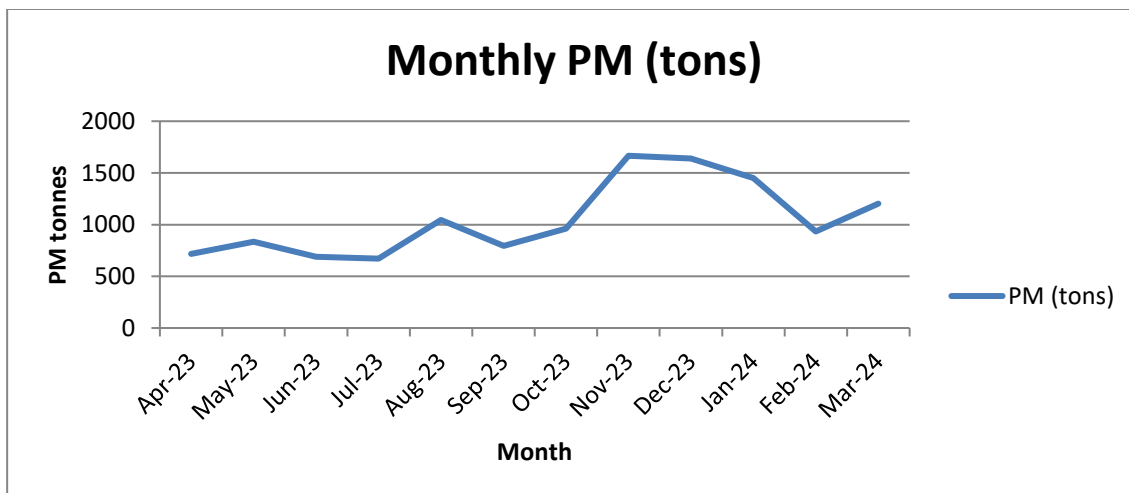


Figure 1: Graphical representation of PM monthly data

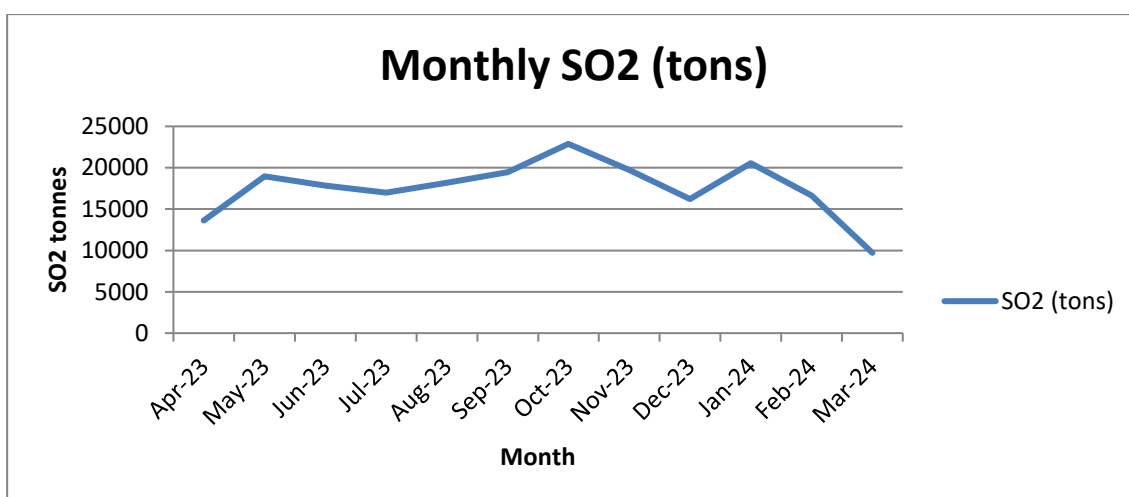


Figure 2: Graphical representation of SO₂ monthly data

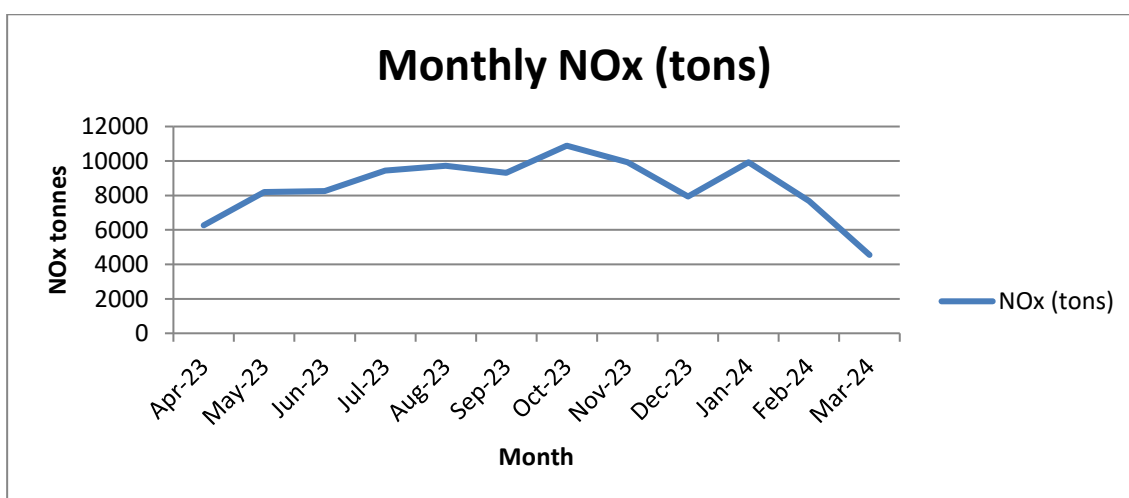


Figure 3: Graphical representation of NO_x monthly data

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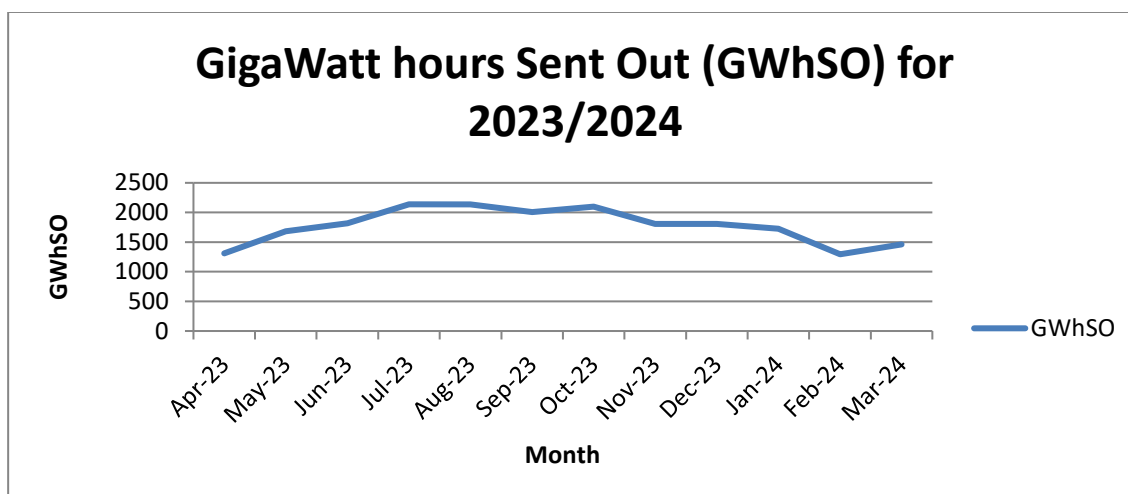


Figure 4: Graphical representation of GigaWatt hours sent out

The emission trends shown in the above table and graphs largely reflect the load of the power station as can be seen in the last graph.

3 MONITORING DATA AVAILABILITY

Table 3: A general oversight of monitoring data availability for Lethabo Power Station 2023/2024 in terms of percentage availability for the year. All parameters are above the minimum 80% availability required according to the Minimum Emissions Standards.

Table 3:CEMS Data availability

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
PM	98%	94%	98%	97%	97%	99%
O₂	99%	100%	99%	99%	100%	99%
SO₂	100%	100%	100%	100%	100%	100%
NO_x	100%	100%	100%	100%	100%	100%

NOTE: Availability reported for when units were online only

4 LEGAL COMPLIANCE (AUDIT) REPORT/S

AEL Compliance Review

Eskom Generation Environmental Management, Air Quality Centre of Excellence (AQ CoE) conducted a compliance review on the Lethabo Power Station AEL. The objective of the AEL compliance review was to determine compliance with the AEL conditions and identified gaps. Lethabo was rated an overall score of 3 – the system of control is regarded as adequate but ineffective to achieve the related business objectives. Most of the governance framework components of the system of control are regarded as ineffective, which results or could result in most of the related business objectives not being achieved. Seven findings were raised during the review, of which six remain open until a new AEL is revised. A summary of the findings raised and the corrective action plan can be found under Annexure A.

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Legal Notices

Department of Forestry, Fisheries and the Environment (DFFE) issued Lethabo Power Station with a pre-compliance notice (PCN) on 19th May 2020, following a compliance inspection conducted during August 2019. A response was submitted to the department on the 2nd June 2020 to dispute the allegations made in the pre-compliance notice. The station continues to provide quarterly feedback to the Department on the improvement plan submitted during the response to the PCN, the latest feedback was submitted in April 2023.

On 14 February 2024, Lethabo PS received formal closure from the DFFE to the pre-compliance notice that was issued in May 2020. Closure indicates that the business has fulfilled its obligations and is no longer at risk of penalties or sanctions. The success in obtaining formal closure of the notice was based on open quarterly feedback, encouraging site visits to the responsible DFFE representative to verify action progress, consistently prioritising their actions and adhering to committed due dates

NEMA S30 Incidents and Legal Contraventions

Eskom Sustainability received communication from DFFE regarding the nature of NEMA Section 30 incidents reported by the organisation, especially referring to incidents related to atmospheric emissions licences (AEL). It is the opinion of DFFE that the majority of the AEL related NEMA Sections 30, do not meet the definition of an incident as these are not “unexpected”, nor “sudden”. As such, the power stations were requested to refrain from reporting emissions related incidents to DFFE as per the guidelines; but rather report such incidents to the local licencing authority as non-compliances. In the light of the request from DFFE it means that any emissions related exceedances lasting for longer than 72 hours, is regarded as the legal contraventions (noncompliance to the AEL). Since the communication received from DFFE, no NEMA Section 30 incidents were reported for Particulate Matter (PM) exceedances. However, eight legal contraventions were incurred as a result for PM and NOx exceedances in the 2023/2024 financial year. Table 4 illustrate incidents where the PM emissions were exceeded for more than 72 hours, and the daily limit was exceeded for NOx, and were reported to the licencing authority as legal contraventions to the station’s AEL.

Table 4: Legal contravention incidents

Incident	Date of Incident	Summary of Event
Unit 5 PM Exceedance	14 May 2023	Poor performance of the ESP casings lead to the unit exceeding the 72 hour upset conditions
Unit 3 PM Exceedance	15 May 2023	Spares available with GE not at EMS workshop resulting in ling lead –time to access them for utilization
Unit 5 PM exceedance	19 June 2023	SO ₃ - plant return to service delay and poorly performing electrostatic precipitator casings

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Incident	Date of Incident	Summary of Event
Lethabo NOx exceedances	14 July 2023	No abatement technology for NOx
Unit 4 PM Exceedances	06 December 2023	Poor performance of the ESP casings
Unit 4 PM Exceedances	26 December 2023	Poor performance of the ESP casings
Unit 3 PM Exceedances	08 January 2024	SO ₃ plant not available
Unit 3 PM Exceedances	14 March 2024	SO ₃ plant not available

5 MAJOR UPGRADES OR PROJECTS:

High Frequency Transformer Upgrades

Lethabo Power Station is currently busy with implementing of the retrofitting the Electrostatic Precipitators (ESP) with High Frequency Transformers (HFT) to improve efficiency of the flue gas cleaning system. The following units have been completed to date:

- Unit 3 completed January 2021
- Unit 2 completed February 2022
- Unit 5 completed June 2022
- Unit 4 completed February 2023
- Unit 1 complete May 2023
- Unit 6 is currently being implemented

Sulphur Trioxide (SO₃) Plant Upgrades

The station is currently implementing a project to completely replace the SO₃ plant skids which will greatly improve the reliability and efficiency of the system. Additionally, it will give the assurance of Original Equipment Manufacturer (OEM) support on the SO₃ plants for future maintenance to be conducted on the plants. The station is implementing the project in a phased approach as this work can only be done on extended outages (more than 70 days). To date, Units 1 and 5 were completed while Unit 6 is currently being implemented and is planned to be commissioned in June 2024. The future implementation dates are a follow:

- Unit 3: 07 September 2024
- Unit 2: 27 January 2025
- Unit 5: 11 August 2025

Electrostatic Precipitator (ESP) Upgrade

To enhance the performance of particulate matter (PM) emissions, the electrostatic precipitator (ESP) upgrade project entails a comprehensive refurbishment of the first four fields on the ESP casings for each unit at the power station. This project commenced in

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January 2024 with Unit 6 and will be commissioned upon completion of this initial unit. The planned implementation schedule for the subsequent units is as follows:

- Unit 3: 7 September 2024
- Unit 2: 27 January 2025
- Unit 5: 8 August 2025
- Unit 4: 16 January 2026
- Unit 1: 10 August 2026

Pulverised Fuel (PF) Burner Refurbishment

From 2020 to 2022, Lethabo Operating Units had extended outages and extensive refurbishment work was completed on the pulverised fuel (PF) burners, with the intention of improving the combustion process and heat absorption in the furnace. All 36 burners were refurbished where, historically, only partial refurbishments were conducted on the burners during outages. After thorough investigation, it was determined that the refurbishment of all 36 burners at once caused elevated NO_x to be generated during the combustion process. This was also confirmed by the Original Equipment Manufacturer (OEM). The higher NO_x would mean that any deviation in the monitors or process conditions may ultimately result in NO_x exceedances being experienced, this is due to no abatement technology available for NO_x generation. Through continuous optimising the combustion process and maintenance on the CEMS monitors, the station was able to keep the NO_x generation to a minimum and only reported 2 NO_x exceedances for the 2023/2024 financial year.

6 GREENHOUSE GAS EMISSIONS:

Greenhouse gas emissions such as CO₂ and N₂O are no longer reported at station level and is included in the Eskom Greenhouse Gas Emissions Report as per the communication in Annexure B.

7 RESULTS OF SPOT MEASUREMENTS OR CORRELATION TESTS

Overview of dates of last conducted CEMS verification tests for PM, SO₂ and NO_x as indicated in the table below.

Table 5: Dates of spot measurements and correlation tests

Unit	PM	SO₂	NO_x
Unit 1	May 2022	May 2022	May 2022
Unit 2	April 2022	March 2022	March 2022
Unit 3	March 2022	March 2022	March 2022
Unit 4	April 2022	April 2022	April 2022
Unit 5	September 2022	September 2022	September 2022
Unit 6	April 2022	April 2022	April 2022

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8 NAEIS REPORTING:

The National Atmospheric Emissions Inventory System (NAEIS) report for 2023 reporting period was submitted on 22 May 2024. The report was manually compiled and submitted to DFFE as the online inventory system is currently down, as communicated by the National Air Quality Officer.

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9 AN EXPLANATION OF ALL INSTANCES WHERE MINIMUM EMISSION STANDARDS WERE EXCEEDED:

All PM exceedances occurred within the 72-hour grace period for start-ups, shutdown, upset and maintenance conditions as stipulated in section 7.3. of the Lethabo Power Station Atmospheric Emission Licence (FDDM-MET-2011-08-P1). Where the 72 hour grace periods were exceeded a Legal contravention in terms of the AEL were reported and indicated as such indicated in Table 4. Note remediation measure and effectiveness – Load losses and Plant repairs were carried out where possible. Table 6 reflect an overview of Particulate Matter (PM) daily average limit exceedances for 2023/2024 financial year. Two gaseous exceedances were recorded for the 2023/2024 FY and these are reflected in Table 7.

Table 6 Particulate Matter Exceedances

Exceedance	Unit	Exceedance Date	Reason for exceedance
1	4	01 April 2023	Unit Light Up
2	5	01 April 2023	ESP Poor Performance and Manual Rapping
3	3	02 April 2023	LHI Casing Outage
4	5	03 April 2023	Casing Outage
5	5	04 April 2023	LHO Casing Outage
6	3	05 April 2023	ESP Poor Performance
7	4	06 April 2023	Unit Light Up
8	5	06 April 2023	High Emission test conducted
9	4	07 April 2023	Unit Shut Down
10	3	08 April 2023	ESP Poor Performance
11	5	08 April 2023	ESP Poor Performance
12	3	09 April 2023	ESP Poor Performance and Manual rapping
13	2	10 April 2023	Unit light up
14	5	10 April 2023	ESP Poor Performance
15	3	11 April 2023	ESP Poor performance
16	5	11 April 2023	ESP Poor Performance and manual rapping
17	3	12 April 2023	ESP Poor Performance

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Exceedance	Unit	Exceedance Date	Reason for exceedance
18	5	13 April 2023	ESP Poor performance
19	3	14 April 2023	ESP Poor Performance and Manual Rapping
20	5	14 April 2023	ESP Poor Performance
21	5	15 April 2023	SO ₃ Plant Challenges and ESP Poor Performance
22	3	17 April 2023	High Hopper Levels and ESP Poor Performance
23	3	18 April 2023	ESP Poor Performance and Manual Rapping
24	5	18 April 2023	High Emission Correlation Test
25	5	20 April 2023	ESP Poor Performance and Manual Rapping
26	3	22 April 2023	LHO Casing Outage
27	5	23 April 2023	RHI Casing Outage
28	2	25 April 2023	ESP Poor Performance and Manual Rapping
29	5	25 April 2023	ESP Poor Performance, Manual rapping and SO ₃ plant challenges
30	3	26 April 2023	ESP Poor Performance and Manual Rapping
31	4	26 April 2023	ESP Poor Performance and SO ₃ Plant challenges
32	5	28 April 2023	ESP Poor Performance and Manual Rapping
33	3	30 April 2023	RHI Casing Outage
34	5	02 May 2023	ESP Poor Performance and Manual Rapping
35	3	03 May 2023	ESP Poor Performance and Manual Rapping
36	4	04 May 2023	ESP Poor Performance and Manual Rapping
37	5	04 May 2023	ESP Poor Performance and Manual Rapping
38	2	05 May 2023	Unit Light Up
39	5	06 May 2023	LHO Casing Outage
40	6	08 May 2023	Unit Light Up
41	2	10 May 2023	ESP Poor Performance and Manual Rapping
42	6	10 May 2023	High Hopper Level and ESP poor performanc
43	4	11 May 2023	ESP Poor Performance and Manual Rapping
44	5	11 May 2023	ESP Poor Performance

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Exceedance	Unit	Exceedance Date	Reason for exceedance
45	2	12 May 2023	ESP Poor Performance
46	3	12 May 2023	Unit Light Up
47	5	12 May 2023	ESP Poor Performance
48	2	13 May 2023	ESP Poor Performance and Manual Rapping
49	3	13 May 2023	Unit Light Up
50	5	13 May 2023	LHO Casing Outage and Poor ESP performance
51	6	13 May 2023	SO ₃ plant challenges
52	2	14 May 2023	ESP Poor Performance
53	3	14 May 2023	Unit Light Up
54	5	14 May 2023	SO ₃ plant Challenges and Legal contravention incurred
55	6	14 May 2023	SO ₃ plant challenges
56	3	15 May 2023	Unit light up
57	5	15 May 2023	Poor ESP Performance and Casing Outage
58	6	15 May 2023	ESP Poor Performance
59	3	16 May 2023	ESP Poor Performance and SO ₃ plant challenges
60	5	16 May 2023	ESP Poor Performance
61	2	17 May 2023	RHI Casing Outage
62	4	19 May 2023	High Hoper Level and Poor ESP Performance
63	3	20 May 2023	RHO Casing Outage
64	4	20 May 2023	ESP Poor Performance and Manual Rapping
65	6	21 May 2023	RHO Casing Outage
66	2	26 May 2023	ESP poor performance
67	2	27 May 2023	RHO Casing Outage
68	5	28 May 2023	RHI Casing Outage
69	2	31 May 2023	Poor ESP Performance and Manual rapping
70	3	31 May 2023	Poor ESP Performance and Manual rapping
71	1	04 June 2023	Unit Light Up

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Exceedance	Unit	Exceedance Date	Reason for exceedance
72	1	05 June 2023	Unit Light Up
73	3	05 June 2023	Unit Light up
74	5	07 June 2023	ESP Poor Performance and Manual Rapping
75	3	08 June 2023	ESP Poor Performance
76	5	09 June 2023	ESP Poor Performance and Manual rapping
77	6	10 June 2023	ESP Poor Performance and manual rapping
78	6	12 June 2023	High Emission Correlation tests done
79	4	13 June 2023	ESP Poor Performance and RHO Casing outage
80	6	13 June 2023	High Emission Correlation tests done
81	4	14 June 2023	ESP Poor Performance, RHI Casing Outage and High Hopper Levels
82	5	16 June 2023	SO ₃ Plant Challenges and Poor ESP Performance
83	5	17 June 2023	LHI Casing Outage, SO ₃ plant Challenges and Poor ESP Performance
84	3	18 June 2023	Unit light up
85	5	18 June 2023	SO ₃ Plant Challenges Poor ESP Performance
86	5	19 June 2023	ESP poor Performance and SO ₃ plant challenges, Legal Contravention Reported
87	3	23 June 2023	LHI casing opportunity outage
88	5	24 June 2023	LHO casing opportunity outage
89	2	27 June 2023	Unit light up
90	2	28 June 2023	Unit light up
91	3	29 June 2023	Manual rapping routine carried out.
92	4	30 June 2023	ESP Poor Performance and Manual Rapping
93	5	30 June 2023	ESP Poor Performance and Manual Rapping
94	6	01 July 2023	LHI casing outage
95	3	05 July 2023	Manual rapping carried out
96	4	07 July 2023	SO ₃ plant challenges
97	6	09 July 2023	ESP Poor Performance and Manual Rapping
98	4	10 July 2023	ESP Poor Performance

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Exceedance	Unit	Exceedance Date	Reason for exceedance
99	3	12 July 2023	Manual rapping and ESP Poor performance
100	2	17 July 2023	ESP Poor Performance and Manual rapping
101	5	17 July 2023	Unit Light Up
102	3	19 July 2023	ESP Poor Performance and Manual Rapping
103	4	20 July 2023	ESP Poor Performance and Manual Rapping
104	1	21 July 2023	RH Draught Plant Tripped, SO ₃ plant challenges and High Hopper Levels
105	6	22 July 2023	ESP Poor Performance and Manual Rapping
106	3	26 July 2023	ESP Poor Performance and Manual Rapping
107	3	29 July 2023	RHI Casing Outage
108	3	02 August 2023	ESP Poor Performance and Manual Rapping
109	6	02 August 2023	ESP Poor Performance and Manual Rapping
110	4	03 August 2023	ESP Poor Performance and Manual Rapping
111	5	04 August 2023	Poor ESP Performance and Manual Rapping
112	4	05 August 2023	Unit Shut Down
113	3	07 August 2023	Unit Shut Down
114	6	07 August 2023	Poor ESP Performance and Manual Rapping
115	2	09 August 2023	Unit Shut Down For Boiler Tube Leak Repairs
116	3	09 August 2023	Unit Light Up
117	3	11 August 2023	ESP Poor Performance
118	4	11 August 2023	ESP Poor Performance and Manual Rapping
119	3	12 August 2023	ESP Poor Performance and Manual Rapping
120	6	12 August 2023	ESP Poor Performance and Manual Rapping
121	5	13 August 2023	ESP Poor Performance
122	3	14 August 2023	ESP Poor Performance and Manual Rapping
123	2	15 August 2023	Unit Light Up
124	5	15 August 2023	ESP Poor Performance and Casing Outage
125	6	15 August 2023	ESP Poor Performance

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Exceedance	Unit	Exceedance Date	Reason for exceedance
126	2	16 August 2023	Unit Light Up
127	3	16 August 2023	LHI casing Outage and ESP poor Performance
128	5	16 August 2023	ESP Poor Performance
129	3	18 August 2023	ESP Poor Performance
130	4	18 August 2023	ESP Poor Performance
131	5	19 August 2023	LHO casing Repairs
132	6	19 August 2023	ESP Poor Performance and Manual Rapping
133	3	20 August 2023	ESP Poor Performance and Manual Rapping
134	1	21 August 2023	ESP Poor Performance and Manual Rapping
135	2	22 August 2023	ESP Poor Performance and Manual Rapping
136	3	22 August 2023	ESP Poor Performance and Manual Rapping
137	6	22 August 2023	ESP Poor Performance
138	4	24 August 2023	ESP Poor Performance and Manual Rapping
139	3	26 August 2023	RHI Casing Outage
140	6	27 August 2023	LHI Casing Outage
141	6	28 August 2023	ESP Poor Performance and Manual Rapping
142	5	29 August 2023	ESP Poor Performance
143	3	30 August 2023	ESP Poor Performance and Manual Rapping
144	6	31 August 2023	ESP Poor Performance
145	5	01 September 2023	ESP Poor Performance and Manual Rapping
146	6	01 September 2023	Unit Shut down for boiler tube leak repairs
147	5	02 September 2023	RHO Casing Outage
148	3	04 September 2023	ESP Poor Performance and SO ₃ plant challenges
149	2	05 September 2023	ESP Poor Performance and Manual Rapping
150	3	06 September 2023	ESP Poor Performance and SO ₃ plant challenges
151	3	07 September 2023	ESP Poor Performance and SO ₃ plant challenges
152	3	09 September 2023	ESP Casing Outage

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Exceedance	Unit	Exceedance Date	Reason for exceedance
153	6	09 September 2023	Casing outage; ESP Poor Performance and Manual Rapping
154	3	10 September 2023	LHO ESP Casing Outage
155	5	10 September 2023	LHI ESP Casing Outage
156	6	10 September 2023	ESP Poor Performance and Manual Rapping
157	5	11 September 2023	Unit Trip and light up
158	3	13 September 2023	SO ₃ plant challenges and ESP Manual rapping
159	4	14 September 2023	ESP Poor Performance and Manual Rapping
160	5	15 September 2023	Manual Rapping
161	6	17 September 2023	RHI Casing Outage
162	1	18 September 2023	Manual Rapping
163	2	19 September 2023	Manual Rapping
164	6	20 September 2023	Dust Handling Plant challenges and ESP Poor Performance
165	4	21 September 2023	Dust Handling Plant challenges, ESP Poor Performance and Manual Rapping Implemented
166	1	24 September 2023	LHO Casing Outage
167	4	28 September 2023	ESP Poor Performance and Manual Rapping
168	6	28 September 2023	ESP Poor performance
169	5	30 September 2023	ESP Poor Performance and Manual Rapping
170	6	02 October 2023	ESP Poor Performance and Manual Rapping
171	2	03 October 2023	ESP Poor Performance and Manual Rapping
172	3	03 October 2023	ESP Poor Performance and Manual Rapping
173	6	03 October 2023	ESP Poor Performance, Manual Rapping and SO ₃ plant challenges
174	2	05 October 2023	ESP Poor Performance and manual rapping
175	3	05 October 2023	ESP Poor Performance and Manual Rapping
176	5	06 October 2023	ESP Poor Performance and Manual Rapping
177	2	07 October 2023	ESP Poor Performance and Manual Rapping
178	3	07 October 2023	ESP Poor Performance
179	6	07 October 2023	RHI Casing Outage

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Exceedance	Unit	Exceedance Date	Reason for exceedance
180	2	08 October 2023	ESP Poor Performance
181	5	08 October 2023	LHO Casing Outage
182	2	09 October 2023	RHI Casing Outage
183	3	09 October 2023	ESP Poor Performance and Manual Rapping
184	3	11 October 2023	LHO Casing Outage
185	2	13 October 2023	LHI Casing Outage
186	6	14 October 2023	Manual Rapping
187	3	16 October 2023	Manual Rapping and Poor ESP performance
188	3	18 October 2023	Manual Rapping
189	5	20 October 2023	Manual Rapping
190	3	23 October 2023	ESP Poor Performance
191	2	24 October 2023	Dust Handling Plant challenges and Manual Rapping Implemented
192	3	25 October 2023	Manual rapping Implemented and SO ₃ plant challenges
193	3	26 October 2023	Unit light up
194	4	26 October 2023	ESP Manual Rapping
195	5	27 October 2023	ESP Manual Rapping
196	3	28 October 2023	ESP Casing Outage
197	3	29 October 2023	ESP Casing Outage
198	4	01 November 2023	SO ₃ plant off load for repairs and ESP Poor Performance
199	2	02 November 2023	ESP Poor Performance and High Hopper Levels
200	3	02 November 2023	ESP Poor Performance, SO ₃ plant challenges and Manual rapping implemented
201	4	02 November 2023	SO ₃ Plant Challenges and ESP Poor Performance
202	3	03 November 2023	ESP Poor Performance and Manual Rapping Implemented
203	6	03 November 2023	Manual Rapping
204	2	05 November 2023	Dust Handling Plant challenges and ESP Poor Performance
205	3	05 November 2023	RHI Casing outage and SO ₃ plant challenges
206	2	06 November 2023	Dust Handling Plant challenges and ESP Poor Performance

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Exceedance	Unit	Exceedance Date	Reason for exceedance
207	3	06 November 2023	ESP Manual Rapping
208	2	08 November 2023	Unit Trip, Boiler on Bypass
209	6	08 November 2023	Dust Handling Plant challenges and ESP Poor Performance
210	2	09 November 2023	Dust Handling Plant challenges and ESP Poor Performance
211	3	09 November 2023	ESP Poor performance
212	4	09 November 2023	ESP Poor Performance and 5 high hopper levels
213	6	09 November 2023	ESP Poor Performance, Manual Rapping Implemented and High Hopper Levels
214	2	10 November 2023	Dust Handling Plant challenges and ESP Poor Performance
215	3	10 November 2023	ESP Poor Performance, Manual Rapping Implemented and High Hopper Levels
216	5	10 November 2023	SO ₃ Plant Tripped
217	3	11 November 2023	Dust Handling Plant challenges and ESP Poor Performance
218	5	11 November 2023	SO ₃ plant offline
219	6	11 November 2023	Dust Handling Plant challenges and ESP Poor Performance
220	1	12 November 2023	Emissions Spike during Clean Rapping set the emissions high for the day
221	2	12 November 2023	RHO Casing Outage
222	3	13 November 2023	ESP Poor Performance and Manual Rapping
223	2	14 November 2023	ESP Poor Performance, Manual Rapping Implemented and High Hopper Levels
224	6	14 November 2023	ESP Poor Performance and Manual Rapping
225	1	15 November 2023	Dust Handling Plant challenges and ESP Poor Performance
226	2	15 November 2023	High hopper levels
227	1	16 November 2023	Dust Handling Plant challenges and ESP Poor Performance
228	2	16 November 2023	Dust Handling Plant challenges and ESP Poor Performance
229	3	16 November 2023	ESP Poor Performance
230	6	16 November 2023	Dust Handling Plant challenges and ESP Poor Performance
231	3	17 November 2023	ESP Poor Performance and SO ₃ plant challenges

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Exceedance	Unit	Exceedance Date	Reason for exceedance
232	1	18 November 2023	Unit Turbine Trip, SO ₃ plant challenges and Sulphur Common Plant de-superheater replaced on the ring main. No sulphur flow to all units affecting SO ₃ Plant
233	2	18 November 2023	Sulphur Common Plant de-superheater replaced on the ring main. No sulphur flow to all units affecting SO ₃ Plant
234	3	18 November 2023	Sulphur Common Plant de-superheater replaced on the ring main. No sulphur flow to all units affecting SO ₃ Plant
235	5	18 November 2023	Sulphur Common Plant de-superheater replaced on the ring main. No sulphur flow to all units affecting SO ₃ Plant
236	6	18 November 2023	Sulphur Common Plant de-superheater replaced on the ring main. No sulphur flow to all units affecting SO ₃ Plant
237	1	19 November 2023	Sulphur Common Plant de-superheater replaced on the ring main. No sulphur flow to all units affecting SO ₃ Plant
238	2	19 November 2023	RHI Casing Outage
239	5	19 November 2023	ESP Poor Performance
240	6	19 November 2023	ESP Poor Performance
241	1	20 November 2023	ESP Manual Rapping
242	3	20 November 2023	SO ₃ Plant challenges and Poor ESP Performance
243	2	21 November 2023	ESP Manual Rapping
244	4	21 November 2023	Unit Light Up
245	3	22 November 2023	High Hopper Levels, Manual Rapping and SO ₃ plant challenges
246	6	22 November 2023	RHO Casing outage and ESP Poor Performance
247	3	23 November 2023	SO ₃ Plant challenges and Poor ESP Performance
248	3	24 November 2023	SO ₃ Plant challenges and Poor ESP Performance
249	4	24 November 2023	Unit Tripped
250	5	24 November 2023	ESP Manual Rapping
251	6	24 November 2023	Unit Shut Down For Boiler Tube Leak
252	2	25 November 2023	Manual rapping implemented

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Exceedance	Unit	Exceedance Date	Reason for exceedance
253	5	25 November 2023	ESP Poor Performance
254	2	26 November 2023	RHO Casing outage and Poor ESP Performance
255	3	26 November 2023	ESP Poor Performance and Manual Rapping
256	1	27 November 2023	ESP Manual Rapping
257	2	27 November 2023	ESP Poor Performance and High Hopper Levels
258	3	27 November 2023	ESP Poor Performance and SO ₃ plant challenge
259	4	27 November 2023	Unit Light Up
260	3	28 November 2023	ESP Poor Performance and SO ₃ plant challenge
261	4	28 November 2023	Unit Shut Down for Boiler Tube Leak
262	6	28 November 2023	Unit Light Up
263	5	29 November 2023	ESP Poor Performance and SO ₃ plant challenges
264	6	29 November 2023	ESP Poor Performance
265	3	30 November 2023	ESP Poor Performance and Manual Rapping
266	2	01 December 2023	ESP Poor Performance
267	5	01 December 2023	SO ₃ plant issues
268	2	02 December 2023	ESP Poor Performance
269	3	02 December 2023	ESP Poor Performance
270	5	02 December 2023	SO ₃ Plant Challenges and ESP poor performance
271	2	03 December 2023	LHO Casing outage
272	3	03 December 2023	Manual rapping carried out and ESP Poor Performance
273	4	03 December 2023	Unit Light Up
274	5	03 December 2023	ESP Poor Performance
275	4	04 December 2023	Unit Light Up
276	3	05 December 2023	SO ₃ Plant Challenges and ESP poor performance
277	4	05 December 2023	ESP Poor Performance
278	5	05 December 2023	SO ₃ Plant Challenges and ESP poor performance
279	3	06 December 2023	Unit shutdown for opportunity maintenance

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Exceedance	Unit	Exceedance Date	Reason for exceedance
280	4	06 December 2023	ESP Poor performance and Manual rapping carried out.
281	4	07 December 2023	RHI ESP casing performance
282	4	08 December 2023	ESP Poor Performance
283	5	08 December 2023	ESP Poor Performance and Manual Rapping
284	4	09 December 2023	ESP Poor Performance
285	6	09 December 2023	RHO Casing Outage
286	4	10 December 2023	High hopper levels
287	1	11 December 2023	Poor ESP Performance
288	4	11 December 2023	High Hopper Levels, Poor ESP performance
289	6	11 December 2023	ESP Poor Performance
290	2	12 December 2023	Unit Light Up
291	4	12 December 2023	High Hopper levels and ESP poor performance
292	5	12 December 2023	Poor ESP Performance
293	6	12 December 2023	ESP Poor Performance
294	2	13 December 2023	Unit Light Up
295	4	13 December 2023	Manual Rapping and High Hopper Levels
296	5	13 December 2023	ESP Poor Performance
297	1	14 December 2023	ESP Poor Performance and sharp increase during clean rapping
298	6	14 December 2023	ESP Poor Performance and High Hopper Level
299	4	15 December 2023	Poor ESP Performance
300	5	15 December 2023	ESP poor performance and Casing Outage
301	5	16 December 2023	Casing Outage
302	6	16 December 2023	Poor ESP performance
303	5	17 December 2023	Challenge in returning LHI Casing from outage causing high emissions to carry over to Sunday.
304	6	17 December 2023	Poor ESP performance
305	3	18 December 2023	Unit Light Up
306	2	19 December 2023	ESP Poor Performance and Manual Rapping

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Exceedance	Unit	Exceedance Date	Reason for exceedance
307	4	19 December 2023	Manual Rapping and Poor ESP Performance
308	6	19 December 2023	Poor ESP Performance and Manual Rapping
309	2	21 December 2023	Poor ESP Performance
310	3	21 December 2023	ESP Poor Performance, SO ₃ Plant challenges and Manual rapping implemented.
311	4	21 December 2023	Manual Rapping and Poor ESP Performance
312	1	23 December 2023	Sulphur plant tripped on low steam temperature and no sulphur flow
313	2	23 December 2023	SO ₃ plant challenges, ESP Poor Performance and Common Sulphur plant challenges
314	3	23 December 2023	SO ₃ plant challenges, ESP Poor Performance and Common Sulphur plant challenges
315	4	23 December 2023	SO ₃ plant challenges, ESP Poor Performance and Common Sulphur plant challenges
316	5	23 December 2023	SO ₃ plant challenges, ESP Poor Performance and Common Sulphur plant challenges
317	6	23 December 2023	SO ₃ plant challenges, ESP Poor Performance and Common Sulphur plant challenges
318	1	24 December 2023	SO ₃ plant challenges and ESP Poor Performance
319	2	24 December 2023	LHI Casing Outage
320	3	24 December 2023	SO ₃ plant challenges and ESP Poor Performance
321	4	24 December 2023	SO ₃ plant challenges and ESP Poor Performance
322	5	24 December 2023	Dust Plant Challenges, Poor ESP Performance and SO ₃ Plant Challenges
323	6	24 December 2023	SO ₃ plant challenges and ESP Poor Performance
324	1	25 December 2023	Sulphur plant tripped on low steam temperature and no sulphur flow
325	3	25 December 2023	Dust Plant Challenges, Poor ESP Performance and SO ₃ Plant Challenges
326	4	25 December 2023	SO ₃ plant challenges and ESP Poor Performance
327	6	25 December 2023	SO ₃ plant challenges and ESP Poor Performance
328	2	26 December 2023	SO ₃ plant challenges and ESP Poor Performance
329	4	26 December 2023	Dust Plant Challenges, Poor ESP Performance and SO ₃ Plant Challenges

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Exceedance	Unit	Exceedance Date	Reason for exceedance
330	3	27 December 2023	Dust Plant Challenges, Poor ESP Performance and SO ₃ Plant Challenges
331	4	27 December 2023	SO ₃ plant challenges and ESP Poor Performance, Legal Contravention Reported
332	6	27 December 2023	SO ₃ plant challenges and ESP Poor Performance
333	3	28 December 2023	SO ₃ plant challenges and ESP Poor Performance
334	4	28 December 2023	SO ₃ plant challenges and ESP Poor Performance
335	6	28 December 2023	Dust Plant Challenges, Poor ESP Performance and SO ₃ Plant Challenges
336	2	29 December 2023	Dust Plant Challenges and Poor ESP Performance
337	4	29 December 2023	Dust Plant Challenges and Poor ESP Performance
338	5	29 December 2023	Dust Plant Challenges and Poor ESP Performance
339	4	30 December 2023	Dust Plant Challenges and Poor ESP Performance
340	6	30 December 2023	Dust Plant Challenges and Poor ESP Performance
341	1	31 December 2023	Dust Plant Challenges and Poor ESP Performance
342	2	31 December 2023	Dust Plant Challenges and Poor ESP Performance
343	3	31 December 2023	Dust Plant Challenges, Poor ESP Performance and SO ₃ Plant Challenges
344	4	31 December 2023	Dust Plant Challenges, High Hopper Levels and Poor ESP Performance
345	6	31 December 2023	Dust Plant Challenges and Poor ESP Performance
346	1	01 January 2024	Dust Plant Challenges and Poor ESP Performance
347	2	01 January 2024	Dust Plant Challenges and Poor ESP Performance
348	3	01 January 2024	Dust Plant Challenges, Poor ESP Performance and SO ₃ Plant Challenges
349	3	02 January 2024	Dust Plant Challenges, Poor ESP Performance and SO ₃ Plant Challenges
350	1	03 January 2024	ESP Poor Performance and Manual Rapping
351	6	03 January 2024	ESP Poor Performance and High Hopper Levels
352	6	04 January 2024	ESP Poor Performance and High Hopper Levels
353	1	05 January 2024	ESP Poor Performance
354	3	05 January 2024	SO ₃ Plant Challenges and ESP Poor Performance
355	5	05 January 2024	ESP Manual Rapping

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Exceedance	Unit	Exceedance Date	Reason for exceedance
356	1	06 January 2024	Unit 1 Tripped and Light Up
357	3	06 January 2024	SO ₃ Plant Challenges and ESP Poor Performance
358	5	06 January 2024	ESP Poor Performance
359	1	07 January 2024	Unit Light Up
360	3	07 January 2024	SO ₃ Plant Challenges and ESP Poor Performance
361	6	07 January 2024	Manual rapping implemented
362	1	08 January 2024	Unit Light Up
363	2	08 January 2024	LHI Casings Outage
364	3	08 January 2024	SO ₃ Plant Challenges, ESP Poor Performance and Legal Contravention Incurred
365	6	08 January 2024	ESP Poor Performance
366	3	09 January 2024	ESP Poor Performance and SO ₃ plant off for cooling and repair
367	4	09 January 2024	Unit Light Up
368	2	10 January 2024	Manual Rapping
369	3	10 January 2024	ESP Poor Performance and SO ₃ plant off for cooling and repair
370	4	10 January 2024	Unit Light Up
371	6	10 January 2024	ESP Poor Performance and Manual Rapping
372	1	11 January 2024	ESP Poor Performance
373	2	11 January 2024	ESP Poor Performance
374	3	11 January 2024	ESP Poor Performance and SO ₃ plant off for cooling and repair
375	4	11 January 2024	Unit Light Up
376	5	11 January 2024	RHO casing outage
377	6	11 January 2024	ESP Poor Performance
378	3	12 January 2024	ESP Poor Performance and SO ₃ plant off for cooling and repair
379	4	12 January 2024	Legal Contravention Incurred due to ESP poor performance
380	6	12 January 2024	ESP Poor Performance and manual rapping
381	1	13 January 2024	ESP Casing Outage

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Exceedance	Unit	Exceedance Date	Reason for exceedance
382	3	13 January 2024	ESP Poor Performance and SO ₃ plant off for cooling and repair
383	4	13 January 2024	Abatement Tecnology not performing, Root cause is being investigated, ESP optimization and Dust plant challenges
384	5	13 January 2024	ESP Poor Performance and Manual Rapping
385	1	14 January 2024	ESP Casing Outage
386	3	14 January 2024	ESP Poor Performance and SO ₃ plant off for cooling and repair
387	4	14 January 2024	Abatement Tecnology not performing, Root cause is being investigated, ESP optimization and Dust plant challenges
388	6	14 January 2024	ESP Poor Performance
389	3	15 January 2024	ESP Poor Performance and SO ₃ plant off for cooling and repair
390	4	15 January 2024	Abatement Technology not performing, Root cause is being investigated, ESP optimization and Dust plant challenges
391	5	15 January 2024	ESP Poor Performance
392	2	16 January 2024	ESP Poor Performance
393	3	16 January 2024	ESP Poor Performance and SO ₃ plant Challenges
394	4	16 January 2024	Abatement Tecnology not performing, Root cause is being investigated, ESP optimization and Dust plant challenges
395	5	16 January 2024	ESP Poor Performance High Hopper Levels
396	6	16 January 2024	ESP Poor Performance
397	3	17 January 2024	ESP Poor Performance SO ₃ plant off for cooling and repair
398	4	17 January 2024	Abatement Tecnology not performing, Root cause is being investigated, ESP optimization and Dust plant challenges
399	6	17 January 2024	ESP Poor Performance and Manual Rapping
400	4	18 January 2024	Abatement Tecnology not performing, Root cause is being investigated, ESP optimization and Dust plant challenges

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Exceedance	Unit	Exceedance Date	Reason for exceedance
401	5	18 January 2024	SO ₃ Plant Challenges
402	6	18 January 2024	ESP Poor Performance and Manual Rapping
403	4	19 January 2024	SO ₃ Plant Challenge
404	2	20 January 2024	Unit Light Up
405	5	20 January 2024	LHO Casing Outage
406	6	20 January 2024	ESP Poor Performance
407	2	21 January 2024	Unit Light Up
408	5	21 January 2024	RHI Casing Outage
409	6	21 January 2024	ESP Poor Performance and Unit Shut Down for Outage
410	2	22 January 2024	Unit Light Up
411	3	22 January 2024	ESP Poor Performance and SO ₃ plant challenges
412	3	24 January 2024	ESP Poor Performance and Manual Rapping
413	2	26 January 2024	ESP Poor Performance, High Hopper Levels and Manual Rapping
414	3	26 January 2024	ESP Poor Performance and Manual Rapping
415	1	28 January 2024	ESP Poor Performance and High Hopper Levels
416	4	29 January 2024	Monitor Maxed out Early hours of the morning and ESP Poor Performance
417	5	30 January 2024	ESP Poor Performance and SO ₃ Plant Challenges
418	2	31 January 2024	Unit Light Up
419	3	31 January 2024	ESP Poor Performance and Manual Rapping
420	5	31 January 2024	ESP Poor Performance and SO ₃ Plant Challenges
421	2	01 February 2024	Unit Light Up
422	3	01 February 2024	ESP Poor Performance
423	4	01 February 2024	ESP Poor Performance and manual rapping
424	3	03 February 2024	Casing Outage
425	2	04 February 2024	Casing Outage
426	3	05 February 2024	ESP Poor Performance and Manual Rapping

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Exceedance	Unit	Exceedance Date	Reason for exceedance
427	4	05 February 2024	ESP Poor Performance, High Hopper Levles and SO ₃ Plant no flow due to sulphur control valve failed
428	2	06 February 2024	ESP Poor Performance and Manual Rapping
429	4	07 February 2024	ESP Poor Performance and Manual Rapping
430	2	08 February 2024	ESP Poor Performance and Manual Rapping
431	3	08 February 2024	ESP Poor Performance and SO ₃ plant off
432	2	10 February 2024	ESP Poor Performance and Manual Rapping
433	3	11 February 2024	ESP Poor Performance and Manual Rapping
434	5	11 February 2024	Unit Light Up
435	5	12 February 2024	Unit Light Up
436	2	13 February 2024	Manual Rapping
437	3	13 February 2024	SO ₃ Plant Challenges and Manual Rapping
438	1	14 February 2024	Unit Light Up
439	2	14 February 2024	Unit Shut Down for Boiler Tube Leak
440	3	14 February 2024	Manual Rapping
441	1	15 February 2024	Unit Light Up
442	1	16 February 2024	Unit Light Up
443	4	16 February 2024	Unit Light Up
444	3	17 February 2024	ESP Poor Performance
445	1	18 February 2024	Manual rapping implemented
446	3	18 February 2024	LHI Casing Outage
447	4	18 February 2024	Dust Handling Plantchallenges, High Hopper Levels and ESP Poor Performance
448	1	20 February 2024	ESP Poor Performance and Monitor Maxed out during clean rapping
449	3	20 February 2024	SO ₃ plant challenges and ESP Poor Performance
450	1	21 February 2024	ESP Poor Performance
451	3	22 February 2024	SO ₃ plant challengea and ESP Poor Performance
452	5	22 February 2024	ESP Poor Performance, Manual Rapping and SO ₃ Plant Challenges

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Exceedance	Unit	Exceedance Date	Reason for exceedance
453	3	23 February 2024	ESP Poor Performance
454	4	23 February 2024	Unit Trip
455	1	24 February 2024	RHI Casing Outage
456	1	25 February 2024	High Hopper Levels and Monitor maxed out during clean rapping
457	3	25 February 2024	ESP Poor Performance and Manual Rapping
458	1	26 February 2024	ESP Poor Performance
459	2	26 February 2024	Unit Light Up
460	3	26 February 2024	LHI Casing Outage
461	4	26 February 2024	ESP Poor Performance
462	2	27 February 2024	Unit Light Up
463	5	27 February 2024	Unit Light Up
464	3	28 February 2024	ESP Poor Performance and Manual Rapping
465	1	29 February 2024	RHI Casing Outage
466	2	29 February 2024	ESP Poor Performance
467	4	29 February 2024	ESP Poor Performance and Manual Rapping
468	1	01 March 2024	RHI Casing Out
469	5	01 March 2024	ESP Poor Performance and Unit Light Up
470	1	02 March 2024	RHI Casing Outage and Poor ESP Performance
471	2	02 March 2024	Unit Shut Down For Boiler Tube Leak
472	3	03 March 2024	ESP Poor Performance and Manual Rapping
473	4	03 March 2024	ESP Poor Performance and Manual Rapping
474	1	05 March 2024	ESP Poor Performance and LHI Casing Outage
475	3	05 March 2024	ESP Poor Performance, Manual Rapping and SO ₃ Plant Challenges
476	1	06 March 2024	ESP Poor Performance and LHI Casing Outage
477	3	07 March 2024	ESP Poor Performance and SO ₃ Plant Challenges
478	5	08 March 2024	ESP Poor Performance and Manual Rapping
479	1	09 March 2024	ESP Poor Performance

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Exceedance	Unit	Exceedance Date	Reason for exceedance
480	1	10 March 2024	ESP Poor Performance
481	1	11 March 2024	ESP Poor Performance and Manual Rapping
482	3	11 March 2024	ESP Poor Performance and SO ₃ Plant Challenges
483	3	12 March 2024	ESP Poor Performance, Manual Rapping and SO ₃ Plant Challenges
484	5	12 March 2024	ESP Poor Performance
485	1	13 March 2024	ESP Poor Performance
486	3	13 March 2024	ESP Poor Performance, Manual Rapping and SO ₃ Plant Challenges
487	5	13 March 2024	ESP Poor Performance and Manual Rapping
488	3	14 March 2024	ESP Poor Performance, SO ₃ plant severe leak and shut down for repairs Legal Contravention Incurred and reported to authorities
489	4	14 March 2024	ESP Poor Performance and Manual Rapping
490	5	14 March 2024	ESP Poor Performance and Manual Rapping
491	2	15 March 2024	Unit Light Up
492	3	15 March 2024	Unit Shut Down for SO ₃ Plant Repairs
493	1	16 March 2024	LHO Casing Outage
494	2	16 March 2024	Unit Light Up
495	4	16 March 2024	ESP Poor Performance
496	5	16 March 2024	ESP Poor Performance and Manual Rapping
497	4	17 March 2024	RHI Casing Outage
498	5	18 March 2024	ESP Poor Performance and Manual Rapping
499	2	19 March 2024	ESP Poor Performance and Manual Rapping
500	4	20 March 2024	ESP Poor Performance
501	5	20 March 2024	LHI Casing Outage
502	2	21 March 2024	RHI Casing Outage
503	4	21 March 2024	ESP Poor Performance
504	4	23 March 2024	Manual rapping implemented
505	5	24 March 2024	RHO Casing Outage

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Exceedance	Unit	Exceedance Date	Reason for exceedance
506	1	25 March 2024	ESP Poor Performance and Manual Rapping
507	3	25 March 2024	Unit Light Up
508	4	25 March 2024	ESP Poor Performance and high hopper levels
509	2	26 March 2024	ESP Poor Performance and Manual Rapping
510	3	26 March 2024	Unit Light Up
511	3	27 March 2024	Unit Light Up
512	4	28 March 2024	ESP Poor Performance and Manual Rapping
513	3	30 March 2024	Unit 3 experienced high hopper levels.
514	4	30 March 2024	LHO casing outage
515	3	31 March 2024	Manual rapping carried out.

Table 7 Gaseous emissions exceedances

Exceedance	Unit	Exceedance Date	Reason for exceedance
1	1	13 July 2023	Refurbishment of all 36 PF burners; No abatement technology available
2	4	12 September 2023	Refurbishment of all 36 PF burners; No abatement technology available

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10 ABBREVIATIONS

Abbreviation	Description
CEMS	Continuous Emissions Monitoring System
CO ₂	Carbon Dioxide
DFFE	Department of Forestry, Fisheries and the Environment
DHP	Dust Handling Plant
ESP	Electrostatic Precipitator
FD	Forced Draft
FY	Financial Year
GHG	Green House Gases
ID	Induced Draft
LH	Left Hand
LHI	Left Hand Inner
LHO	Left Hand Outer
N ₂ O	Nitrous Oxide (dinitrogen oxide)
NAEIS	Nation Atmospheric Emissions Inventory System
NEMA	National Environmental Management Act
NO _x	Nitrogen Oxides
O ₂	Oxygen
PF	Pulverised Fuel
PLC	Programmable Logic Controller
PM	Particulate Matter
PTW	Permit To Work
RH	Right Hand
RHI	Right Hand Inner
RHO	Right Hand Outer
RT&D	Research, Testing and Development Department
SO ₂	Sulphur Dioxide
SO ₃	Sulphur Trioxide
S30	NEMA Section 30 Incident
SSC	Submerged Scraper Conveyor
VSD	Variable Speed Drive


11 LIST OF ANNEXURES

Annexure A	AEL Compliance Review Corrective Action Plan
Annexure B	DEA GHG Reporting and AELs Exclusion of CO ₂ from monthly reports

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Annexure A – AEL Compliance Review Corrective Action Plan

		Lethabo Power Station Audit/Review/Assessment Action Plan		Template Identifier	240-43921898	Rev	7
				Document Identifier	LFM793	Rev	01
				Effective Date	2023/05/23		
				Review Date	2028/05/23		
NC / OFI No	Relevant Clause/ Requirement	Statement of Non Conformity/ Non Compliance	Correction (What action is taken to correct what is currently not conforming)	Root Cause (What caused the non-compliance)	Corrective Action (What action was taken to deal with the root-cause)	Allocated Responsible Person	Expected/ target Close Out Date
1	AEL condition 1: Atmospheric Emission Licence Administration	The licence review date is indicated as no later than 31 March 2020 on the AEL, but the station only received the draft AEL on the 15th of July 2022, and because of the EMS appeal process the licence is still not finalised, as a result the station is still operating with an expired licence. However, the station effort to expedite the AEL issuing process is noted. In addition DFFE issued a letter (Dated 14 July 2020) to Eskom confirming that stations can continue to operate with the existing AEL until new decision on the MES postponement is granted.	Station to expedite the finalisation of the draft AEL received with the Licensing Authority once related to the MES limits and appeal process are resolved.	Long lead time to conclude the Minimum Emissions Standards Postponement request and subsequent appeal of the decision made, leading to the licensing authority not willing to provide new AEL until the matter is resolved.	Expedite the finalisation of the draft AEL received with the Licensing Authority	Willem de Klerk	2025/03/31 SAP QIM Activity is in place for this action: 200138941
2	AEL condition 4.3: Sampling and/or analysis requirements	The Service Provider who conducted the tests was still not SANAS accredited. The company is still in the process of getting the accreditation.	Station to utilize service providers that have the required accreditations for the correlations and parallel tests.	The equipment used for the analysis is calibrated by a SANAS accredited lab, however the company	Ensure the station utilize service providers that have the required accreditations for	Preteah Parag	2024/01/31 SAP QIM Activity is in
				conducting the tests is not accredited yet.	the correlations and parallel tests in future contracts.		place for this action: 200138944
3	AEL condition 6.1: Raw material used	During July 2022 fuel oil consumption was exceeded due to unit 5 major outage return to service having plant issues and in February 2023 due to the station running short of coal as well as numerous start-ups and shut-downs.	Station to investigate the causes of high fuel oil consumptions and put remediation measures in place in order to stay below the limit.	Consumption was exceeded due to unit 5 major outage return to service having plant issues and in February 2023 due to the station running short of coal as well as numerous start-ups and shut-downs	Investigate the causes of high fuel oil consumptions and put remediation measures in place in order to stay below the limit.	Tshiphiri Ramulumisi	Closed SAP QIM Activity is in place for this action: July 2022: 100059990 and February 2023: 100064442
4	AEL condition 7.2: Point source maximum permissible emission rates (under normal working conditions).	Unit 5 exceeded the PM limit on the 14th until the 16th of May 2023 due to poor ESP performance (upset conditions) and again on the 19th of June 2023 due to ESP poor performance and maintenance of the SO3 plant.	Station to ensure that the emission abatement technology is at all times properly maintained to in order to improve the performance and avoid exceedance of the AEL limit.	SO3 plant defects and ESP issues affected PM performance. The station reported multiple PM Exceedances due to defective apparatus on the abatement technologies.	Refurbishment of SO3 plant and replacement of precipitators to reduce emissions	Nkosinathi Mazibuko	2025/12/15 SAP QIM Activity is in place for this action: 200135223
5	AEL condition 7.3.3: Point source permissible conditions under	Unit 3 exceeded the PM limit of 100mg/Nm3 on the 15th and 16th of May 2023 during start-up due to the SO3 plant failures and unit 5 on the 14th to 16th of May 2023 due to poor ESP	Station to follow the light up procedure and ensure that the grace period is not exceeded.	SO3 plant defects and ESP issues affected PM performance. The station reported multiple PM Exceedances due to	Refurbishment of SO3 plant and replacement of precipitators to reduce emissions	Nkosinathi Mazibuko	2025/12/15 SAP QIM Activity is in

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	start-up, maintenance and upsets	performance upset conditions. Unit 5 exceeded the PM limit again on the 19th of June 2023 due to ESP poor performance and maintenance of the SO3 plant.		defective apparatus on the abatement technologies.			place for this action: 200135223
6	AEL condition 7.1: Appliances and control measures	SO3 plant utilisation was found to be below 100% for all the units during April and May 2023. It should be noted that the station is busy with the SO3 plant refurbishment project with units 1 and 4 already completed. Other units will be done as per the outage plan. The last unit to be completed in 2025.	Station needs to improve the availability and reliability of the SO3 plant and in addition the station needs to request from the Licencing Authority during AEL renewal process for the relaxed utilisation percentages of the SO3 plant to allow for periods of upset conditions and light up periods where it is not possible to operate the plant at 100%.	ESP and SO3 plant utilisation will not be 100% due to breakdowns, start ups and shutdown. The 100% utilisation requirement is not feasible to implement and might have been an error in the original AEL application.	The station to request from the Licencing Authority during AEL renewal process for the relaxed utilisation percentages of both ESP and the SO3 plant to allow for periods of upset and light up periods where it is not possible to operate the plants at 100%.	Pretes Parag	Closed SAP QIM Activity is in place for this action: 200138949
7	AEL condition 11.2.2: Appeal of Atmospheric emissions licence	Requirements to inform the registered interested and affected parties of the appeal procedure provided for in Chapter 7 of the GN No R543 of	Station to ensure that all the requirements stipulated on the licence conditions are covered on the appeal	There was an oversight when the AEL was received and interested and affected parties were	Station to ensure that all the requirements stipulated on the licence conditions	Willem de Klerk	2025/04/30 SAP QIM Activity is in
		18 Jun 2010 was not covered on the notification letter.	notification letter when informing the interested and affected parties when the new licence is issued.	not notified about the appeal procedure for the authorisation	are covered on the appeal notification letter when informing the interested and affected parties.		place for this action: 200135224

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Annexure B - DEA GHG Reporting and AELs Exclusion of CO₂ from monthly reports



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Enquiries: Mr Vumile Senene
Tel: (012) 399 9217 Email: VSenene@environment.gov.za

Atmospheric Licensing Authorities
Atmospheric Emission License Holders

Dear All,

RE: Clarity on Greenhouse Gas Emission Reporting – According to the National Environmental Management: Air Quality Act 39 of 2004 (AQA).

This letter serves to inform Atmospheric Emission License (AEL) holders and remind Atmospheric Emission Licensing Authorities (AELA) about the agreement reached on reporting of greenhouse gas emissions for the purpose of meeting AEL reporting requirements and the country's reporting requirements to national climate change obligations.

Section 43 of the AQA stipulates the contents of a provisional atmospheric emission license and an atmospheric emission license. In this regard S43 (1)(l); states that – *A provisional atmospheric emission license and an atmospheric emission license must specify: greenhouse gas emission measurement and reporting requirements.* In the first quarter of the financial year 2017/18 MINTEC and MINMEC management meetings, it was agreed that all AELs shall stipulate the following "Reporting in terms of S43 (1)(l) shall be done in accordance with the National Greenhouse Gas Reporting Regulations".

In light of this, AELs will be reviewed (according to the schedule prepared by the AELAs) to include this same reporting phrase. The reporting phrase will be inserted into existing AELs that are due for renewal during the renewal process. Finally, the AEL application template has been amended to include this phrase.

Yours Sincerely,

Dr Thuli Khumalo
National Air Quality Officer
Date: 15 May 2019

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