



Generation

Nkangala District Municipality
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Attention:

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AND

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Total number of pages:14

Total number of Annexes:1

DUVHA POWER STATION

Atmospheric Emission License: NDM/AEL/MP312/11/07

GENERAL MANAGER

2026/04/29
DATE

DUVHA POWER STATION MONTHLY EMISSIONS REPORT
Atmospheric Emission License: NDM/AEL/MP312/11/07



1 RAW MATERIALS AND PRODUCTS

Raw Materials and Products	Raw Material Type	Units	Max Permitted Consumption Rate	Consumption Rate Mar-2026
	Coal	Tons	1 400 000	373 086.62
	Fuel Oil	Tons	5 000	3484.44

Production Rates	Product / By-Product Name	Units	Max Production Capacity Permitted	Indicative Production Rate Mar-2026
	Energy	GWh	2 160.000	575.29
	Ash	Tons	562 464	91 443.53

Note: Max energy rate = AEL capacity [3,600 MW] × 24 hrs × days in month ÷ 1,000 (to convert to GWh).

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
Sulphur Content	%	0.6 - 1.2	0.68
Ash Content	%	30.2	24.51

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	Daily Limit		
	PM	SO ₂	NO _x
Unit 1	50	2600	1100
Unit 2	50	2600	1100
Unit 4	100	2600	1100
Unit 5	50	2600	1100
Unit 6	100	2600	1100

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	ESP Efficiency	Technology Type	SO ₃ Plant Utilization
Unit 1	FFP	99.95%	FFP	n/a
Unit 2	FFP	99.89%	FFP	n/a
Unit 4	ESP + SO ₃	99.89%	SO ₃	100.00%
Unit 5	ESP + SO ₃	99.89%	SO ₃	99.20%
Unit 6	ESP + SO ₃	99.79%	SO ₃	100.00%

Note: The ESP plant does not have a bypass mode; therefore, it operates at 100% utilization.

5 DATA RELIABILITY (%)

Associated Unit/Stack	PM	SO ₂	NO	O ₂
Unit 1	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>
Unit 2	99.1	89.3	89.5	100.0
Unit 4	100.0	69.8	69.8	100.0
Unit 5	100.0	98.7	98.7	99.7
Unit 6	99.0	83.7	84.0	86.4

Note: NO_x emissions are measured as NO in PPM. The final NO_x value is expressed as total NO₂ equivalent.

6 EMISSION PERFORMANCE

Table 6.1. Monthly tonnages for March 2026

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
Unit 1	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>
Unit 2	39.8	2,621	1,060
Unit 4	7.5	513	178
Unit 5	15.9	1,161	408
Unit 6	36.5	2,171	867
SUM	99.74	6,466	2,513

Table 6.2. PM AEL Daily - March 2026

Associated Unit/Stack	Normal Days	Number of days in Grace period	Number of Section 30 days	Number of days in contravention	Total Exceedance	Mo Avg (mg/Nm ³)
Unit 1	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>
Unit 2	28	0	0	0	0	21.2
Unit 4	6	0	0	0	0	41.5
Unit 5	14	1	0	0	1	29.6
Unit 6	21	0	0	0	0	31.9
SUM	69	1	0	0	1	

Table 6.3: SO₂ AEL Daily - March 2026

Associated Unit/Stack	Normal Days	Number of days in Grace period	Number of Section 30 days	Number of days In contravention	Total Exceedance	Mo Avg (mg/Nm ³)
Unit 1	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>
Unit 2	29	0	0	0	0	1 349.5
Unit 4	10	0	0	0	0	1 529.1
Unit 5	17	0	0	0	0	1 687.6
Unit 6	22	0	0	0	0	1 692.7
SUM	78	0	0	0	0	

Table 6.4: NO_x AEL Daily - March 2026

Associated Unit/Stack	Normal Days	Number of days in Grace period	Number of Section 30 days	Number of days In contravention	Total Exceedance	Mo Avg (mg/Nm ³)
Unit 1	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>	<i>Unit Offload</i>
Unit 2	29	0	0	0	0	544.7
Unit 4	10	0	0	0	0	519.3
Unit 5	17	0	0	0	0	591.0
Unit 6	22	0	0	0	0	662.2
SUM	78	0	0	0	0	

Table 6.5: Legend Description

Condition	Colour	Description
Normal		Emissions below Emission Limit Value (ELV)
Grace		Emissions above the ELV during grace period
Section 30		Emissions above ELV during a NEMA S30 incident
Contravention		Emissions above ELV but outside grace or S30 incident conditions

Figure 1: Duvha Unit 2 PM Emissions - March 2026

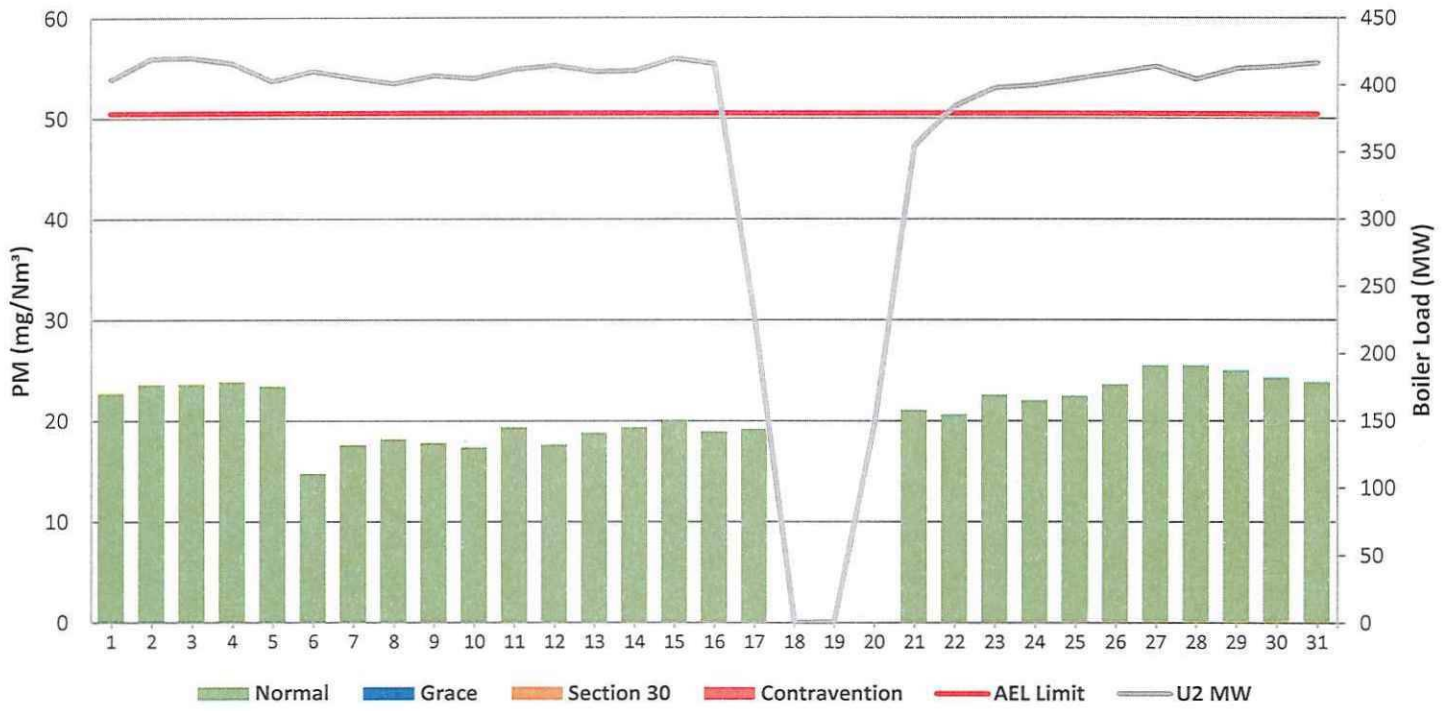


Figure 2: Duvha Unit 4 PM Emissions - March 2026

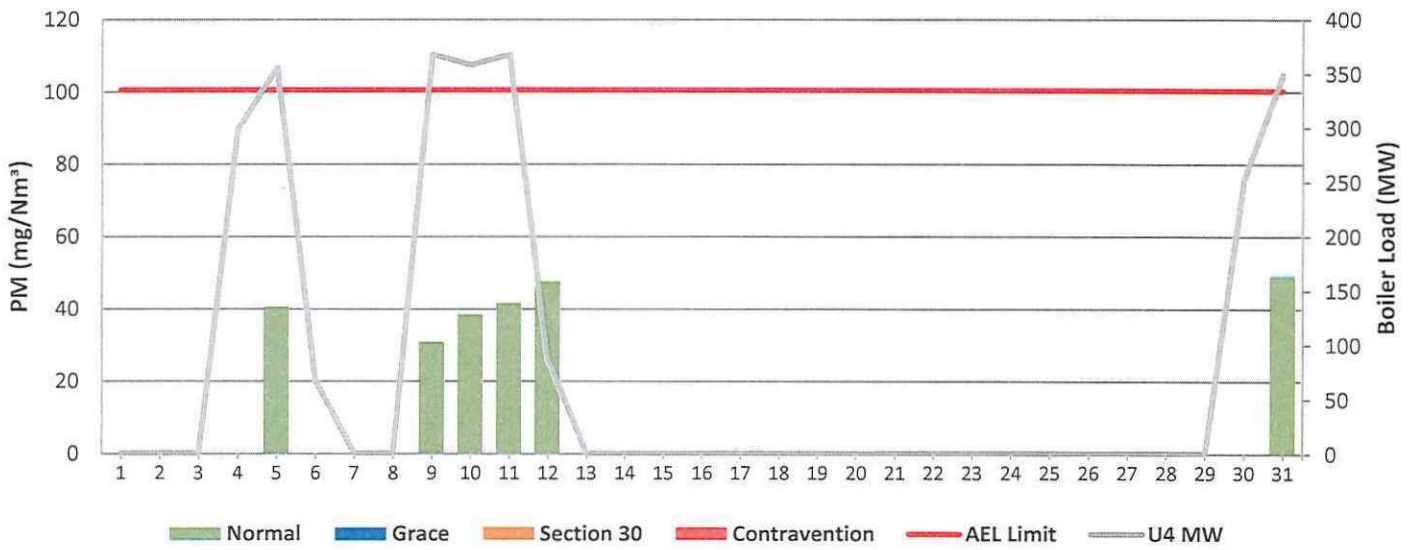


Figure 3: Duvha Unit 5 PM Emissions - March 2026

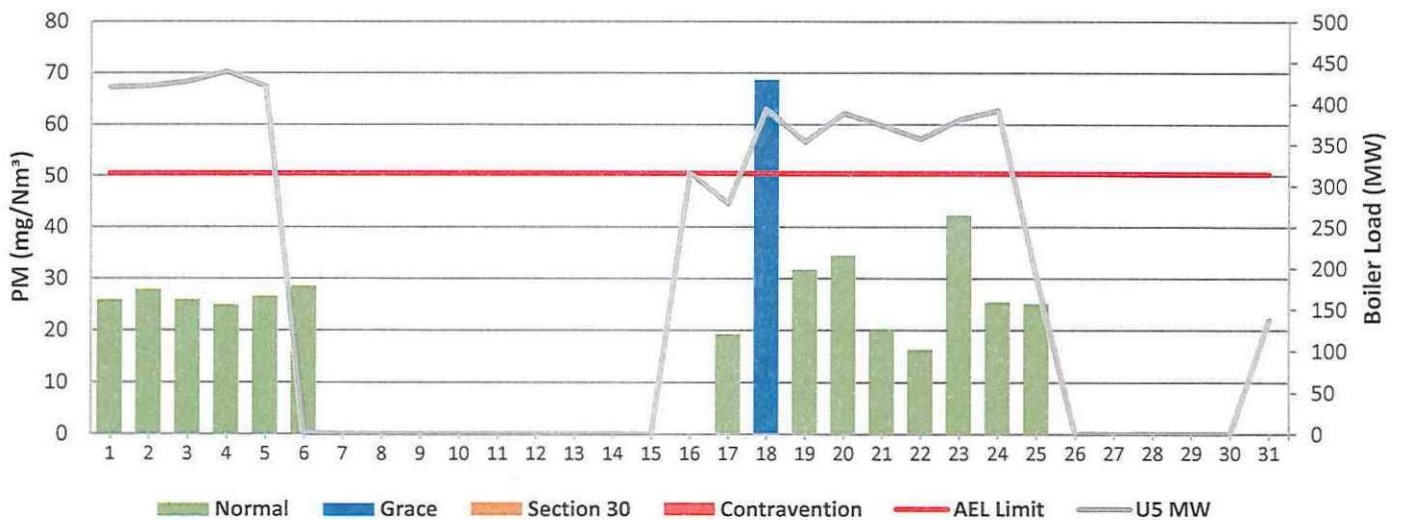


Figure 4: Duvha Unit 6 PM Emissions - March 2026

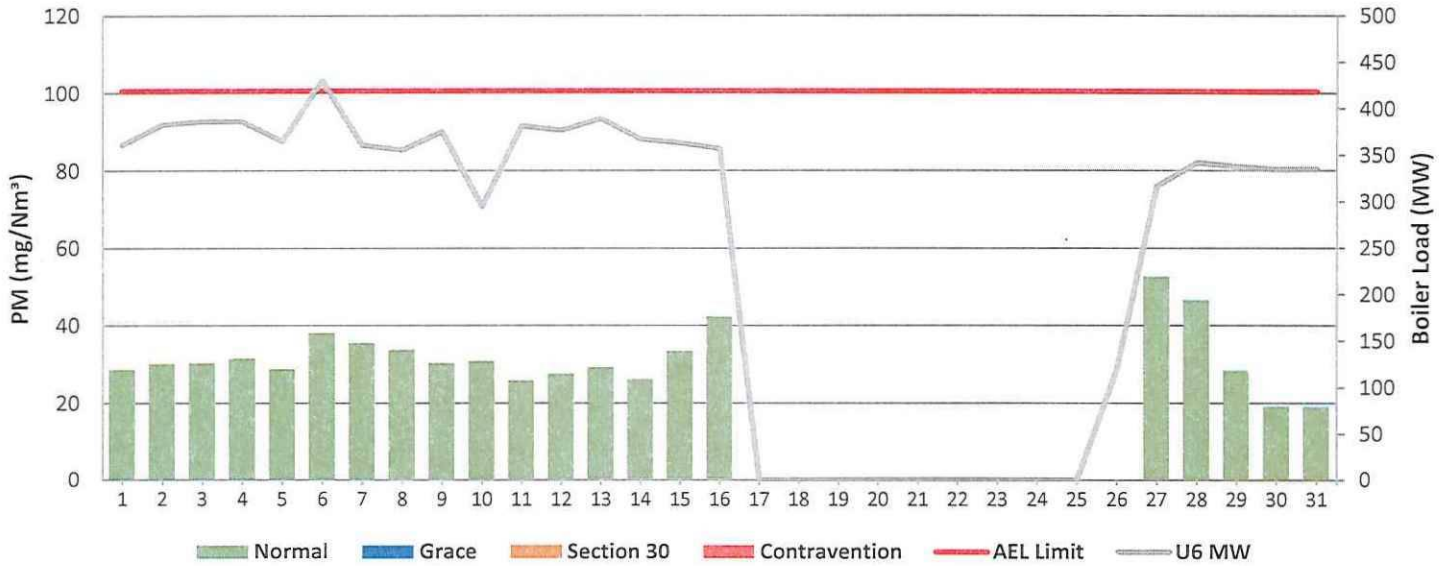


Figure 5: Duvha Unit 2 SO₂ Emissions - March 2026

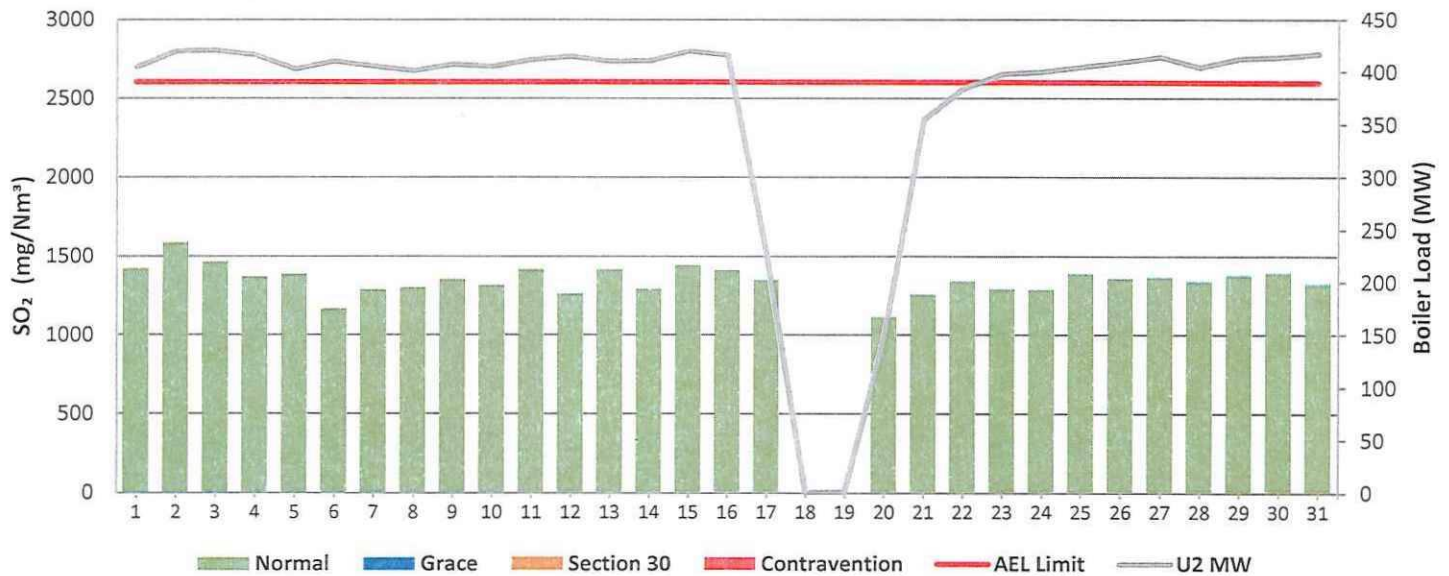


Figure 6: Duvha Unit 4 SO₂ Emissions - March 2026

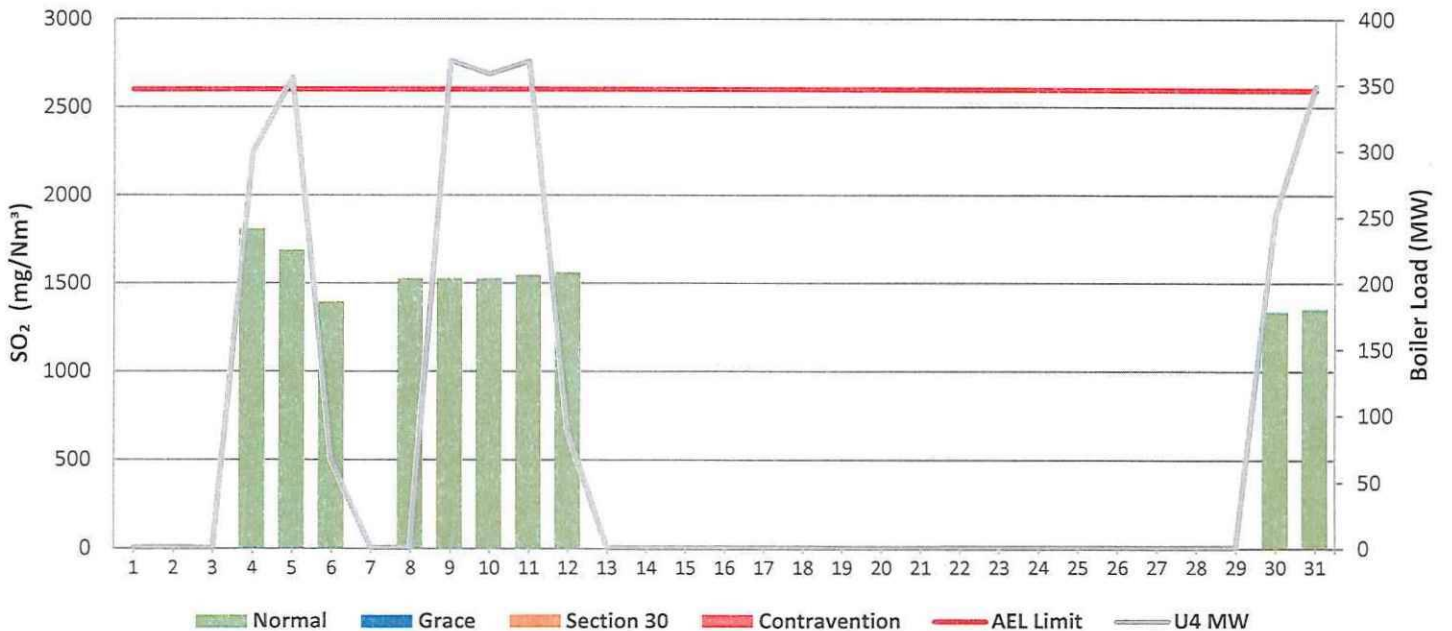


Figure 7: Duvha Unit 5 SO₂ Emissions - March 2026

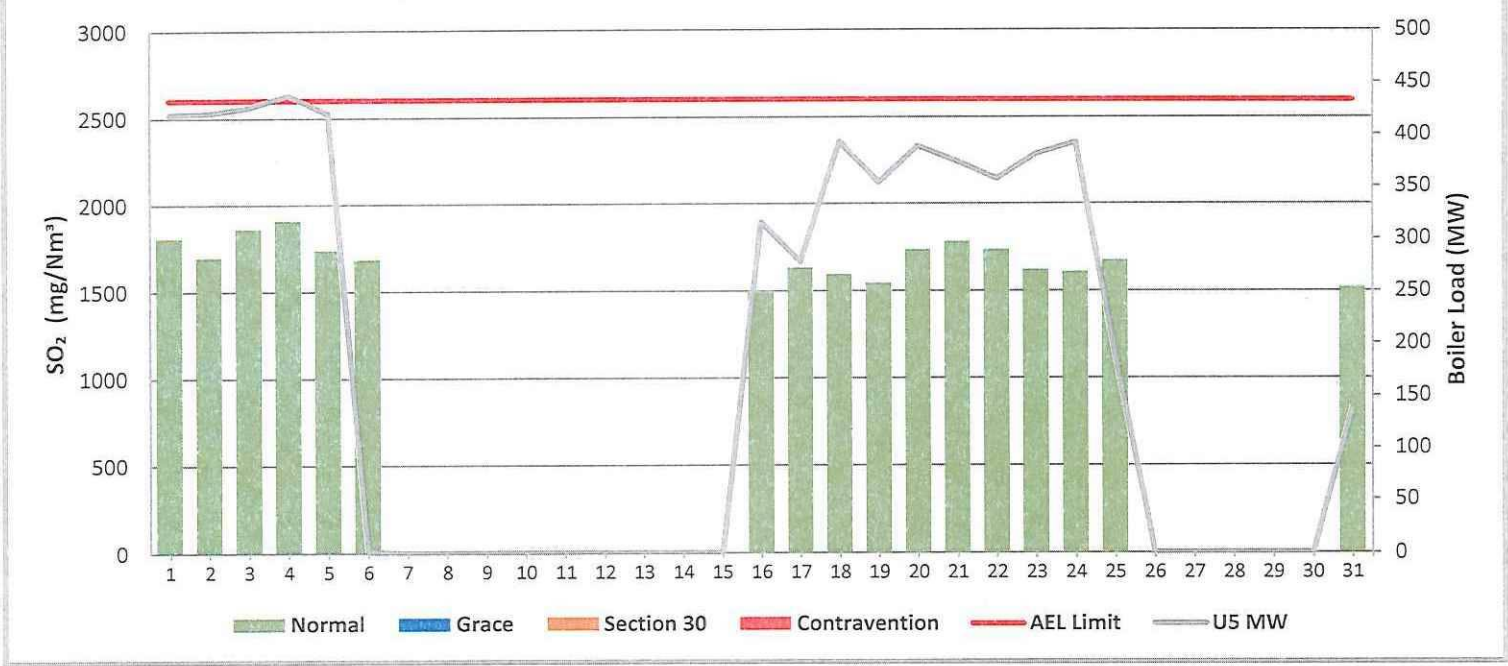


Figure 8: Duvha Unit 6 SO₂ Emissions - March 2026

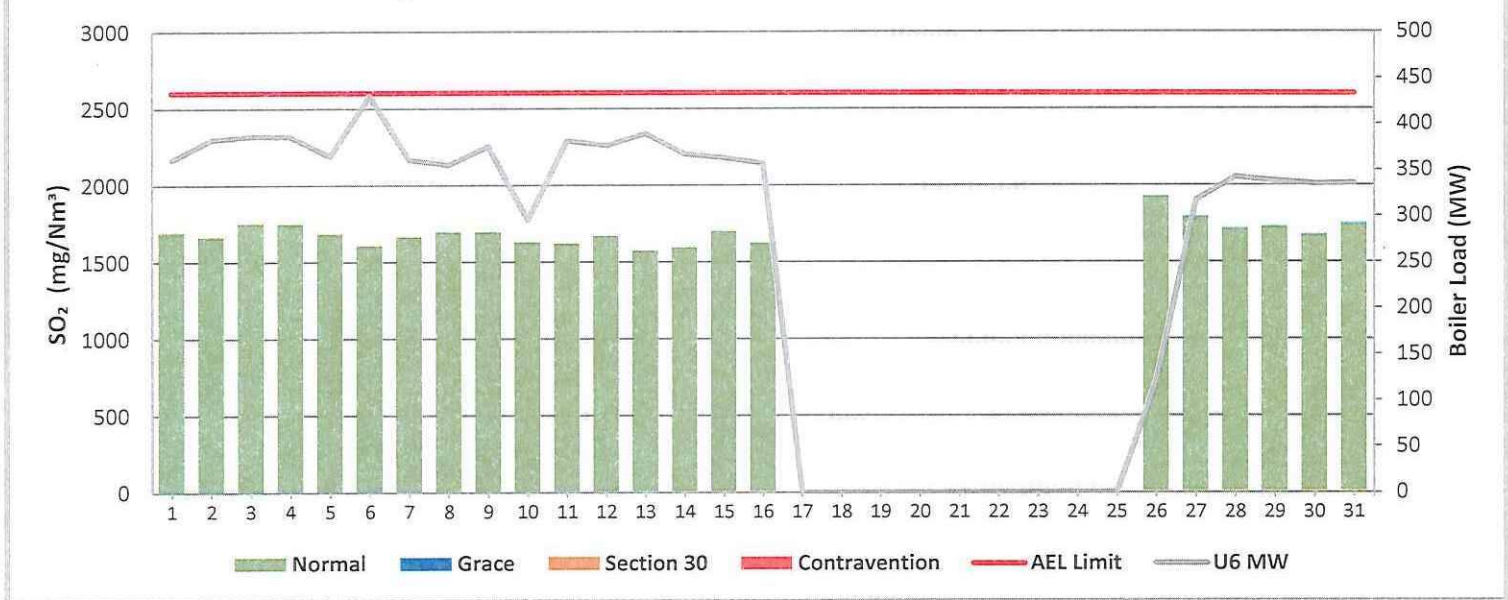


Figure 9: Duvha Unit 2 NO_x Emissions - March 2026

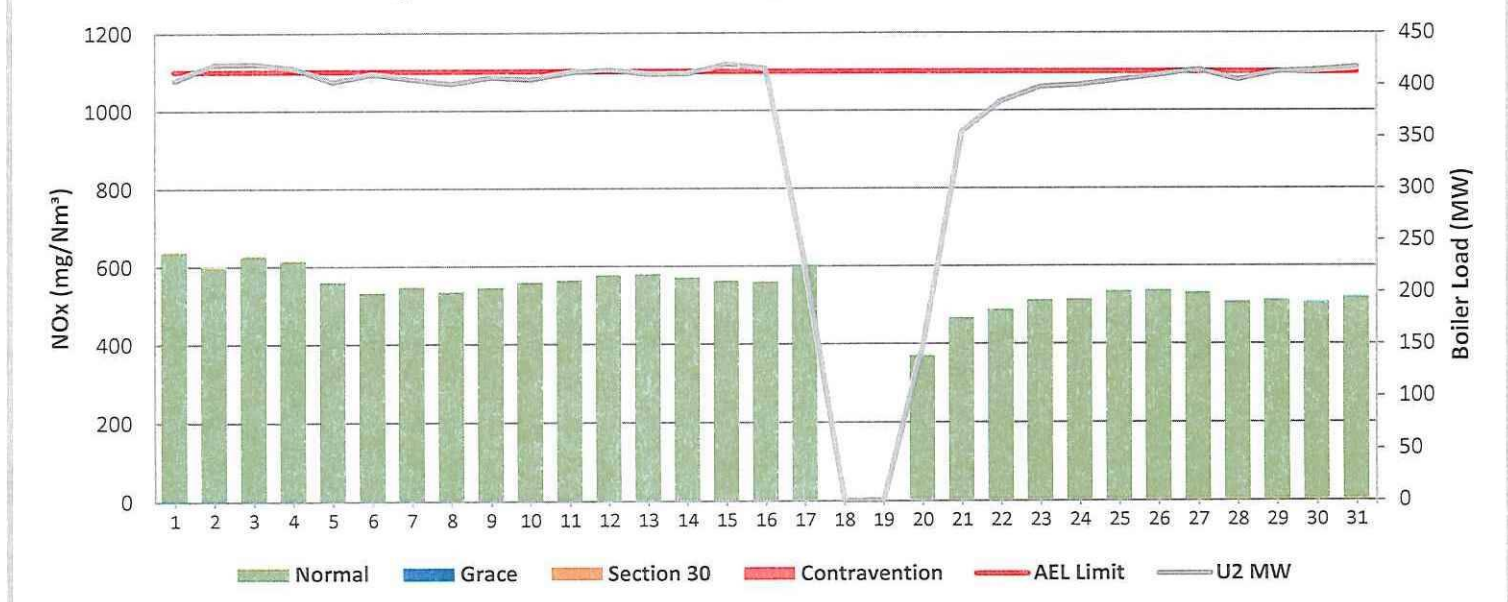


Figure 10: Duvha Unit 4 NO_x Emissions - March 2026

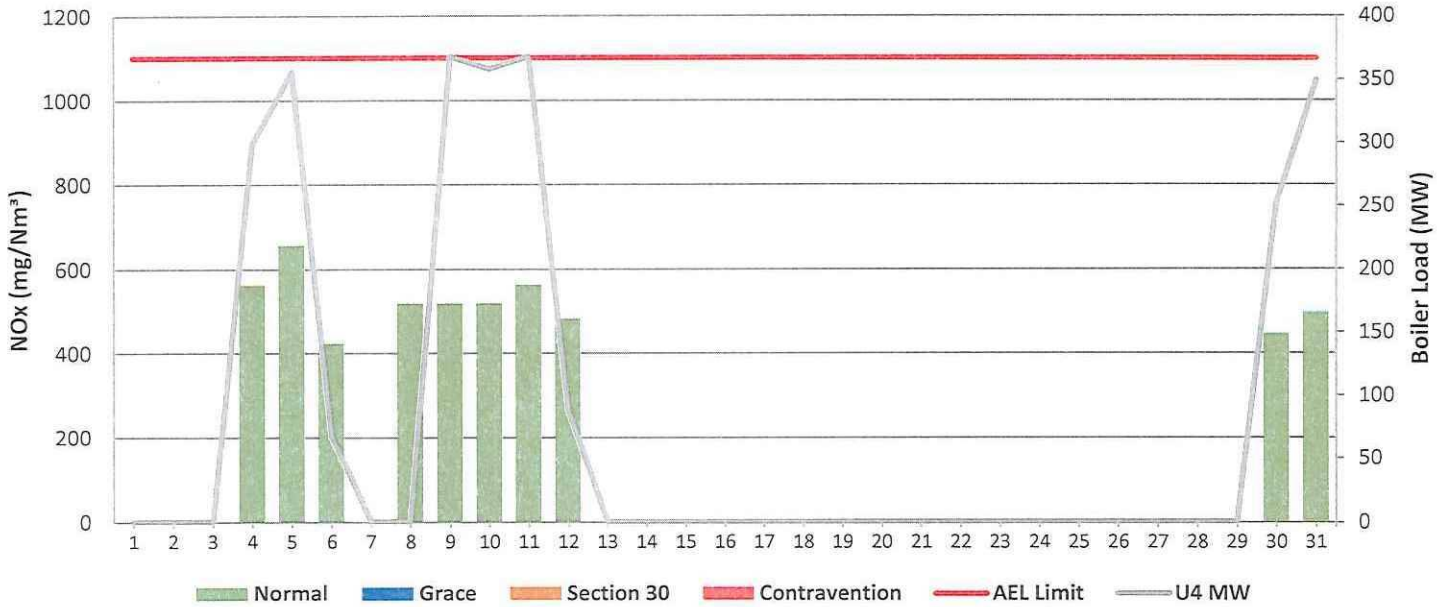


Figure 11: Duvha Unit 5 NO_x Emissions - March 2026



Figure 12: Duvha Unit 6 NO_x Emissions - March 2026



7 Shut-down and light-up information for MARCH 2026

Event Description	Event 1		
Unit 2	Breaker Open (BO)	1:35 pm	2026/03/17
	Draught Group (DG) Shut Down (SD)	6:05 pm	2026/03/17
	BO to DG SD (duration)	00:04:30	DD:HH:MM
	Fires in time	3:25 am	2026/03/20
	Synch. to Grid (or BC)	11:40 am	2026/03/20
	Fires in to BC (duration)	00:08:15	DD:HH:MM
	Emissions below limit from BC (end date)	12:00 am	2026/03/22
	Emissions below limit from BC (duration)	01:12:20	DD:HH:MM

	Event Description	Event 1		Event 2		Event 3	
Unit 4	Breaker Open (BO)	BO previously	BO previously	8:20 pm	2026/03/05	6:05 am	2026/03/12
	Draught Group (DG) Shut Down (SD)	Shut down previously	Shutdown previously	9:45 pm	2026/03/05	12:55 pm	2026/03/12
	BO to DG SD (duration)	n/a	DD:HH:MM	00:01:25	DD:HH:MM	00:06:50	DD:HH:MM
	Fires in time	10:30 pm	2026/03/03	2:05 pm	2026/03/08	1:10 am	2026/03/30
	Synch. to Grid (or BC)	5:05 am	2026/03/04	11:55 pm	2026/03/08	5:55 am	2026/03/30
	Fires in to BC (duration)	00:06:35	DD:HH:MM	00:09:50	DD:HH:MM	00:04:45	DD:HH:MM
	Emissions below limit from BC (end date)	12:00 am	2026/03/05	12:00 am	2026/03/10	12:00 am	2026/03/31
	Emissions below limit from BC (duration)	00:18:55	DD:HH:MM	01:00:05	DD:HH:MM	00:18:05	DD:HH:MM

Event Description		Event 1		Event 2	
Unit 5	Breaker Open (BO)	12:10 am	2026/03/06	11:40 am	2026/03/25
	Draught Group (DG) Shut Down (SD)	1:50 am	2026/03/06	4:45 pm	2026/03/25
	BO to DG SD (duration)	00:01:40	DD:HH:MM	00:05:05	DD:HH:MM
	Fires in time	8:40 pm	2026/03/15	10:10 am	2026/03/31
	Synch. to Grid (or BC)	3:40 am	2026/03/16		
	Fires in to BC (duration)	00:07:00	DD:HH:MM		DD:HH:MM
	Emissions below limit from BC (end date)	2:00 am	2026/03/19	not > limit	not > limit
	Emissions below limit from BC (duration)	02:22:20	DD:HH:MM		DD:HH:MM

Event Description	Event 1		
Unit 6	Breaker Open (BO)	8:45 am	2026/03/16
	Draught Group (DG) Shut Down (SD)	4:00 pm	2026/03/16
	BO to DG SD (duration)	00:07:15	DD:HH:MM
	Fires in time	8:05 am	2026/03/26
	Synch. to Grid (or BC)	5:25 pm	2026/03/26
	Fires in to BC (duration)	00:09:20	DD:HH:MM
	Emissions below limit from BC (end date)	12:00 am	2026/03/28
	Emissions below limit from BC (duration)	01:06:35	DD:HH:MM

8 COMPLAINTS

There were no complaints for this month

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

9 GENERAL


<p>Exceedances</p> <p>Particulate Matter</p> <p>Unit 5</p> <p>18/03/2026</p> <p>During the first 24 hours following the return to service of the unit on 17 March 2026, particulate emissions were elevated due to start-up conditions, as the SO₃ plant requires approximately eight (8) hours or more to achieve the necessary temperature, pressure, and operating conditions for effective injection at 18 ppm, thereby optimising electrostatic precipitator field performance and full particulate matter abatement efficiency</p> <p>Monitor Reliability</p> <p>Additionally, the SOX and NOX data monitor reliability was below 80% The reasons are attached on annexure 1</p> <p>The rest of the information demonstrating compliance with the emission license conditions is supplied in the annual emission report which will be sent to your office</p> <p>The rest of the information demonstrating compliance with the emission license conditions is supplied in the annual emission report which will be sent to your office</p>

10 S30 Incidents

There were no section 30 incidents


Boiler Plant Engineering
Manager

28/04/2026
Date


Environmental Manager

2026/04/29
Date

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Engineering Manager

2026-04-28
Date

Compiled by Environmental Officer

For Nkangala District Municipality Air Quality Officer

Copies Generation Environmental Management D Herbst
B Mccourt

Generation Compliance Management R Rampiar
Generation Asset Management E Patel

Duvha Power Station
Engineering Manager
Operating Manager
Maintenance Manager
Production Manager
Boiler Engineering Manager
System Engineer
Environmental Manager