Eskom

Generation

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Total number of pages: 13

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DUVHA POWER STATION

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

GENERAL MANAGER

2025/12/24
DATE

NOVEMBER 2025

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 Nov-2025
	Coal	Tons	*1400000*	*390 056.11*
	Fuel Oil	Tons	*5 000*	*4182.48*
Production Rates	**Product / By-Product Name**	**Units**	**Max Production Capacity Permitted**	**Indicative Production Rate Nov-2025**
	Energy	GWh	2160	*682.23*
	Ash	Tons	562 464	*92 677.33*

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*	*0.70*
Ash Content	%	*30.2*	*23.76*

3 EMISSION LIMITS (mg/Nm³)

	Daily Limit		
Associated Unit/Stack	**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%*	*SO_3*	*n/a*
Unit 2	*FFP*	*99.95%*	*SO_3*	*n/a*
Unit 4	*ESP + SO_3*	*Unit off load*	*SO_3*	*Unit off load*
Unit 5	*ESP + SO_3*	*99.86%*	*SO_3*	*97.8%*
Unit 6	*ESP + SO_3*	*99.86%*	*SO_3*	*100.0%*

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	*100 0*	*100 0*	*100 0*	*100 0*
Unit 2	*99 2*	*78 5*	*78 5*	*80 3*
Unit 4	*Unit off load*	*Unit off load*	*Unit off load*	*Unit off load*
Unit 5	*99 70*	*82 70*	*83 10*	*100 0*
Unit 6	*99.80*	*81 40*	*81 40*	*80 20*

Note: NO_x emissions are measured as NO in PPM The final NO_x value is expressed as total NO_2 equivalent.

6 EMISSION PERFORMANCE

Table 6 1 Monthly tonnages for November 2025

Associated Unit/Stack	PM (tons)	SO_2 (tons)	NO_x (tons)
Unit 1	0 0	2	1
Unit 2	14 8	2 311	1 286
Unit 4	*Unit off load*	*Unit off load*	*Unit off load*
Unit 5	35 60	1 547	658
Unit 6	29 40	2 649	1 287
SUM	79 88	6 510	3 232

Table 6 2 PM AEL Daily - November 2025

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/Nm³)
Unit 1	1	0	0	0	0	21 2
Unit 2	25	0	0	0	0	10 0
Unit 4	*Unit off load*	*Unit off load*	*Unit off load*	*Unit off load*	*Unit off load*	*Unit off load*
Unit 5	26	2	0	0	2	36 6
Unit 6	26	0	0	0	0	18 5
SUM	**78**	**2**	**0**	**0**	**2**	

Table 6 3 SO_2 AEL Daily - November 2025

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/Nm³)
Unit 1	1	0	0	0	0	1 087 30
Unit 2	26	0	0	0	0	1 492 60
Unit 4	*Unit off load*	*Unit off load*	*Unit off load*	*Unit off load*	*Unit off load*	*Unit off load*
Unit 5	30	0	0	0	0	1 226 30
Unit 6	28	0	0	0	0	1 541 10
SUM	**85**	**0**	**0**	**0**	**0**	

Table 6.4: NO_x AEL Daily - November 2025

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/Nm³)
Unit 1	1	0	0	0	0	519.90
Unit 2	26	0	0	0	0	822.90
Unit 4	*Unit off load*	*Unit off load*	*Unit off load*	*Unit off load*	*Unit off load*	*Unit off load*
Unit 5	30	0	0	0	0	520.00
Unit 6	28	0	0	0	0	746.50
SUM	**85**	**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 1 PM Emissions - November 2025

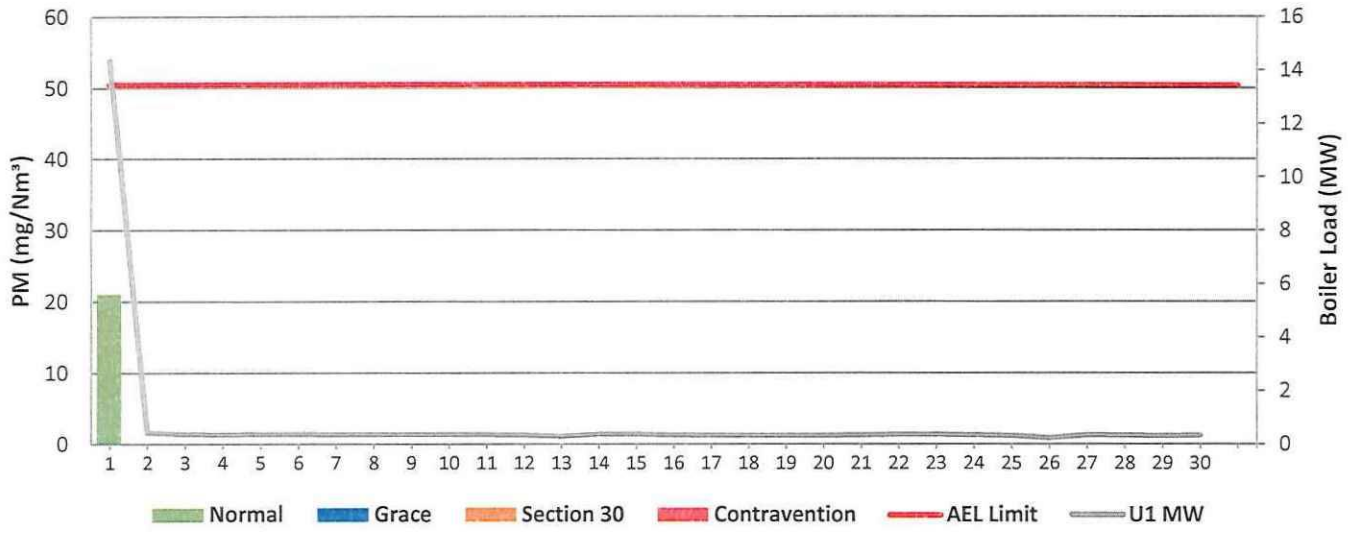


Figure 2: Duvha Unit 2 PM Emissions - November 2025

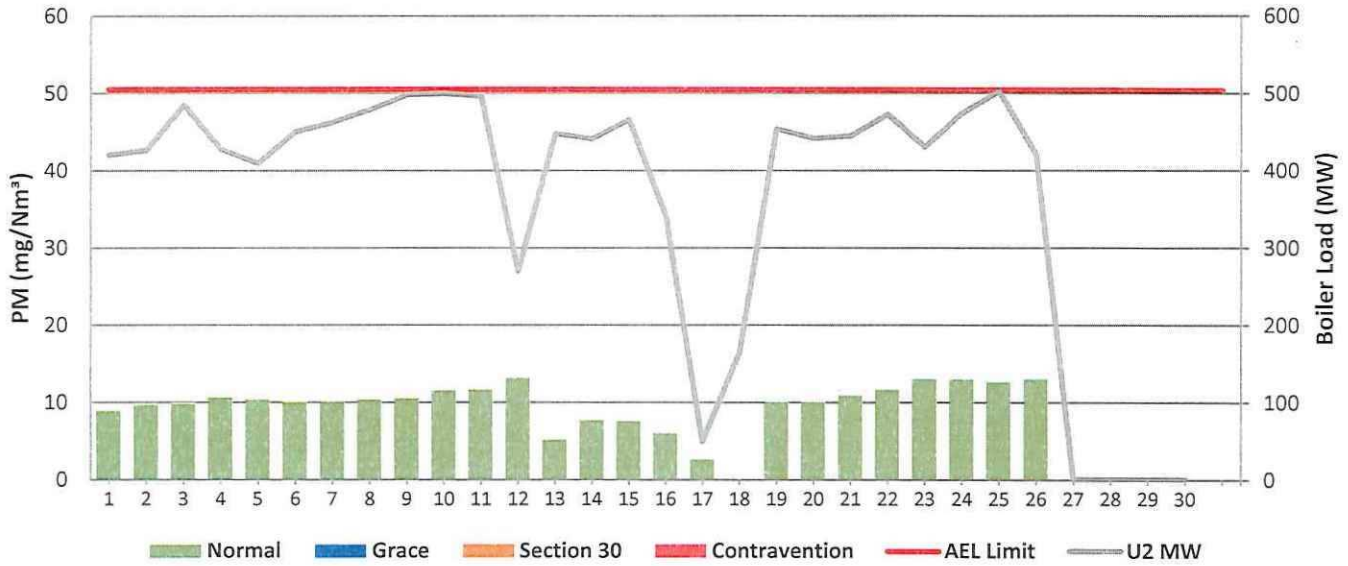


Figure 3: Duvha Unit 5 PM Emissions - November 2025

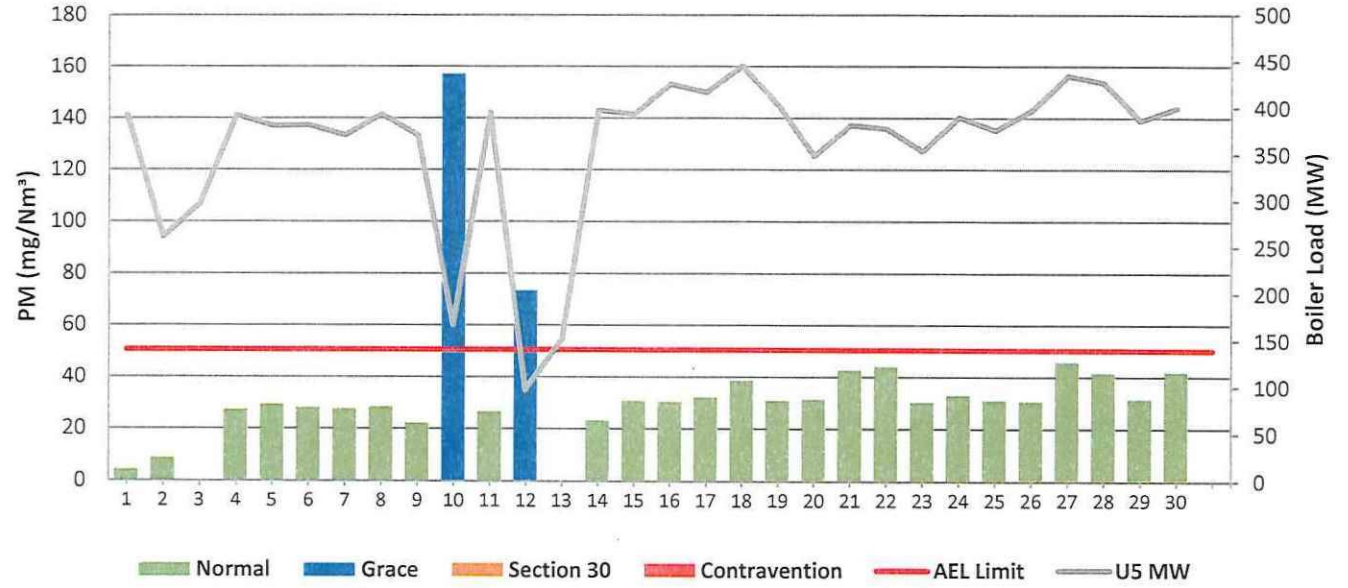


Figure 4: Duvha Unit 6 PM Emissions - November 2025

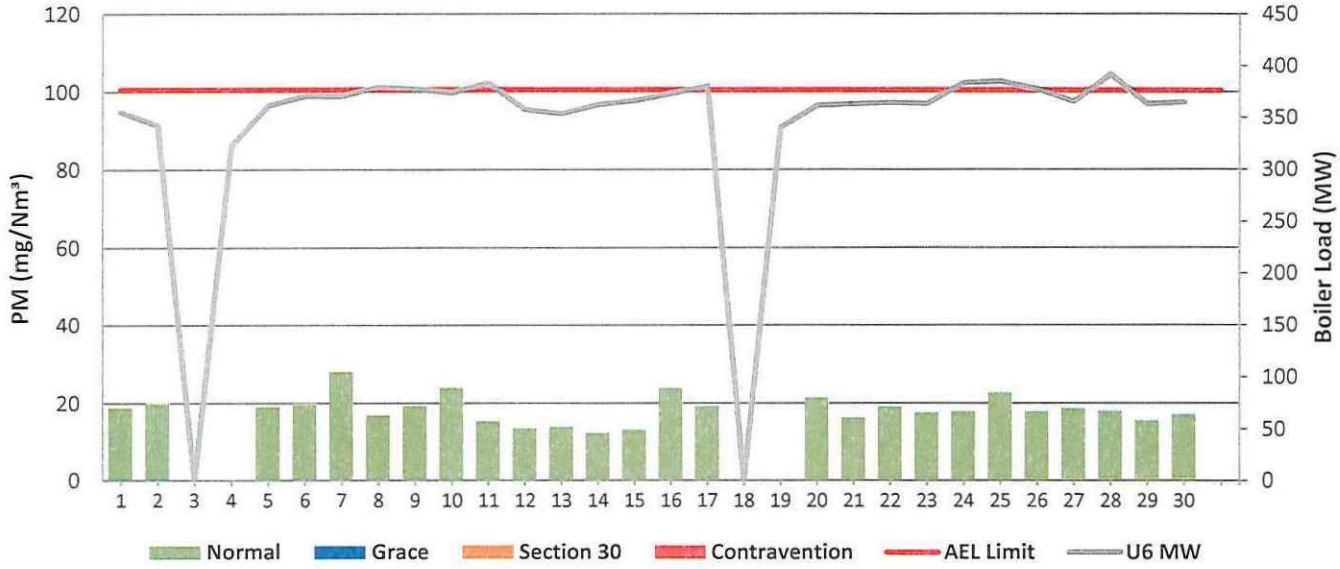


Figure 5: Duvha Unit 1 SO_2 Emissions - November 2025

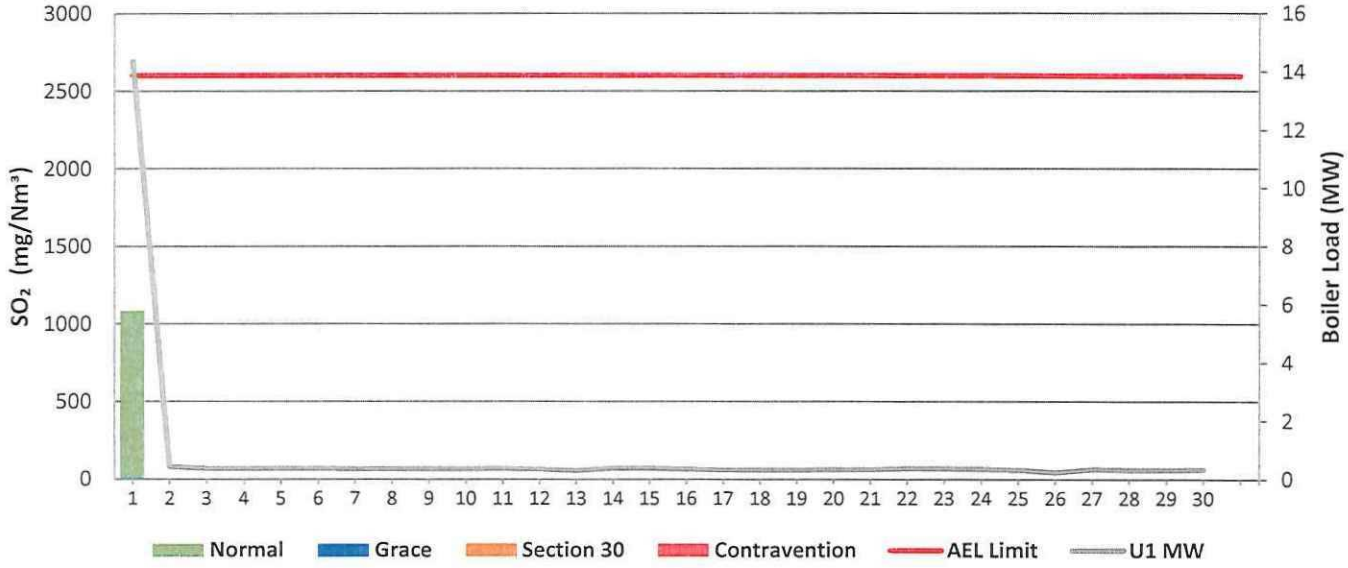


Figure 6: Duvha Unit 2 SO_2 Emissions - November 2025

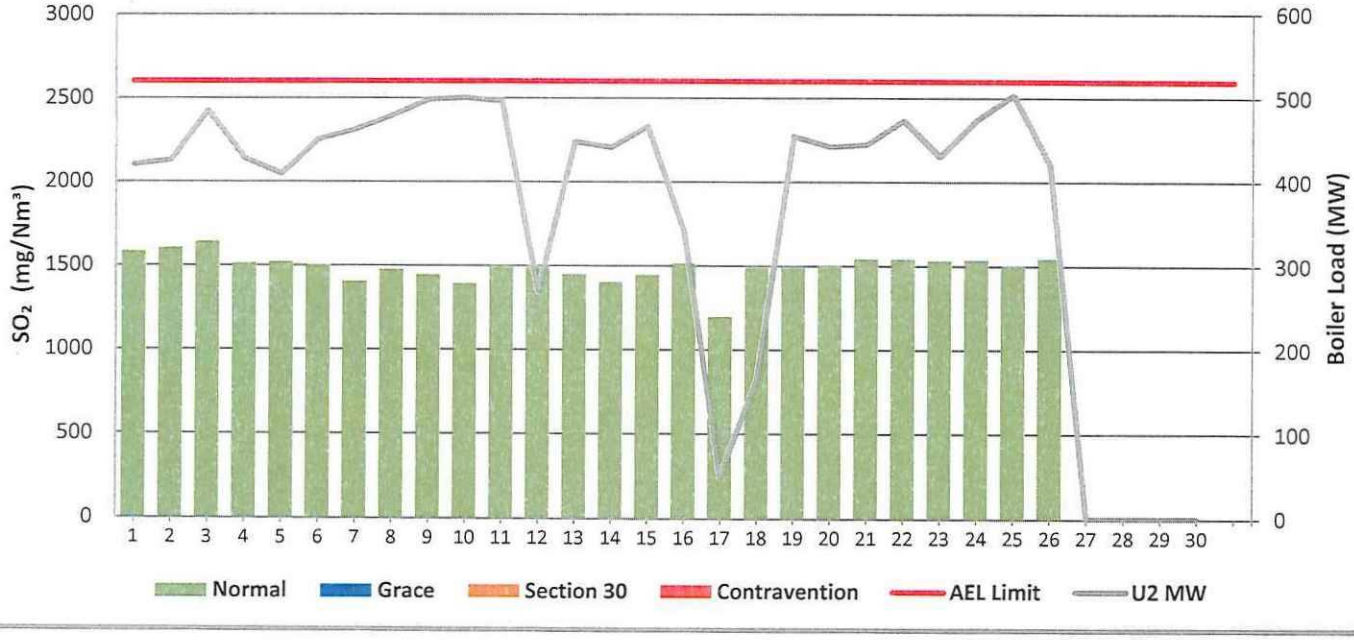


Figure 7: Duvha Unit 5 SO_2 Emissions - November 2025

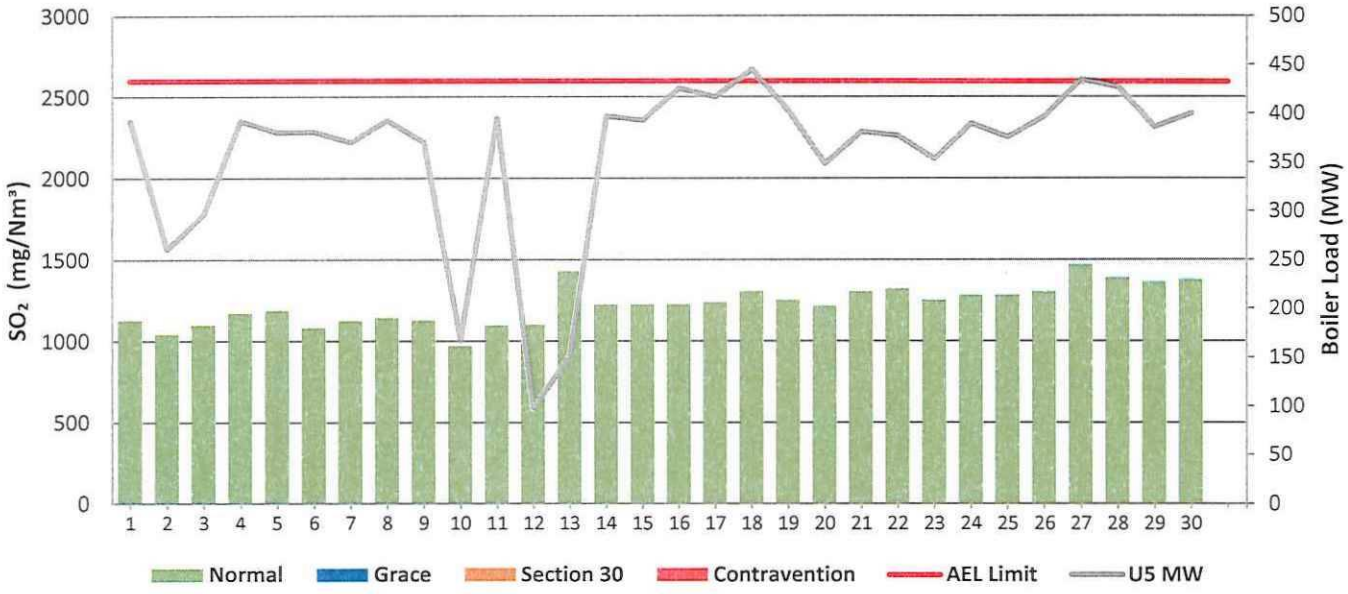


Figure 8: Duvha Unit 6 SO_2 Emissions - November 2025

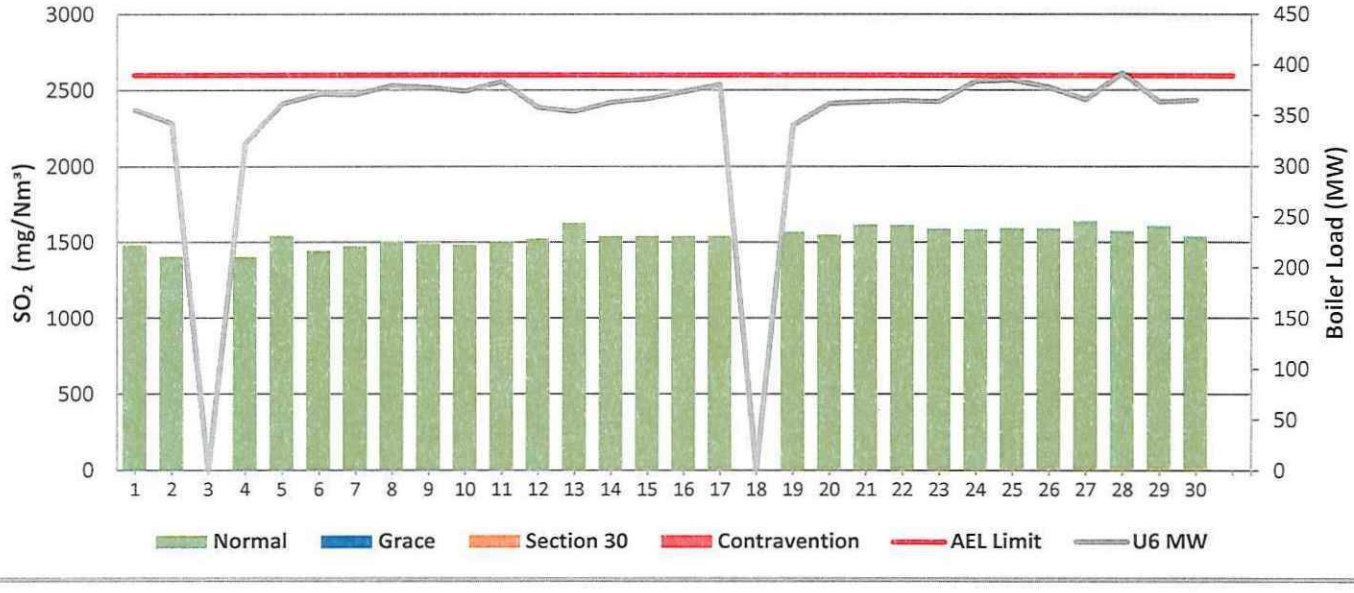


Figure 9: Duvha Unit 1 NO_x Emissions - November 2025

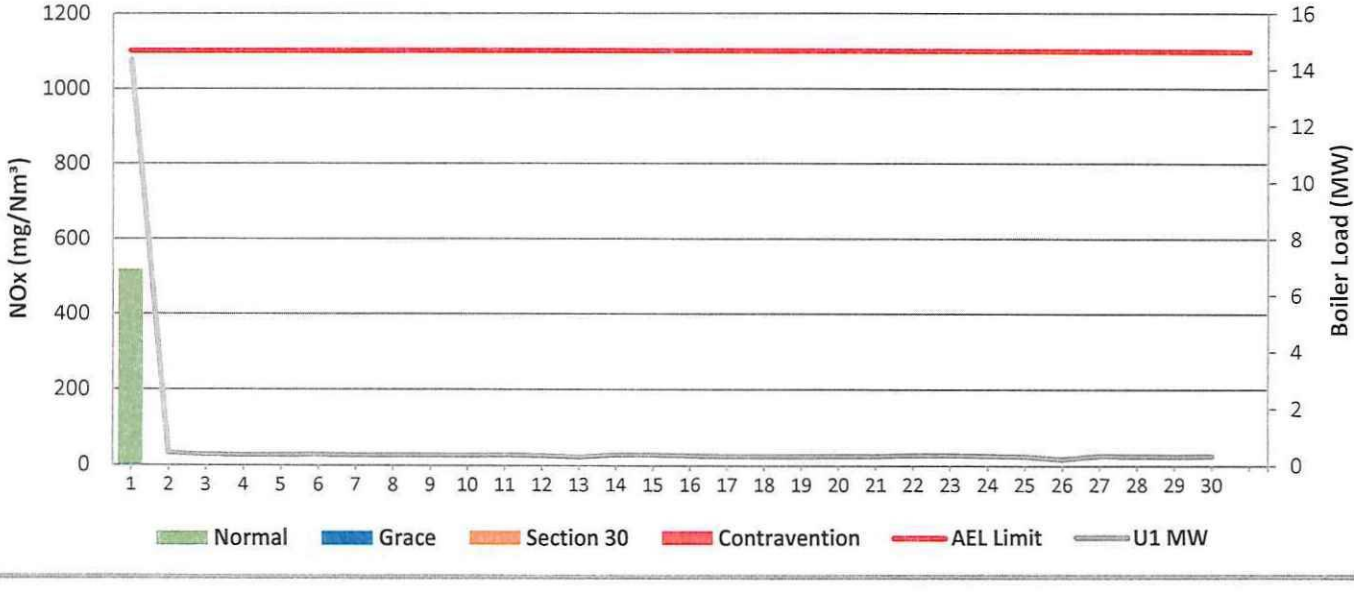


Figure 10: Duvha Unit 2 NO_x Emissions - November 2025

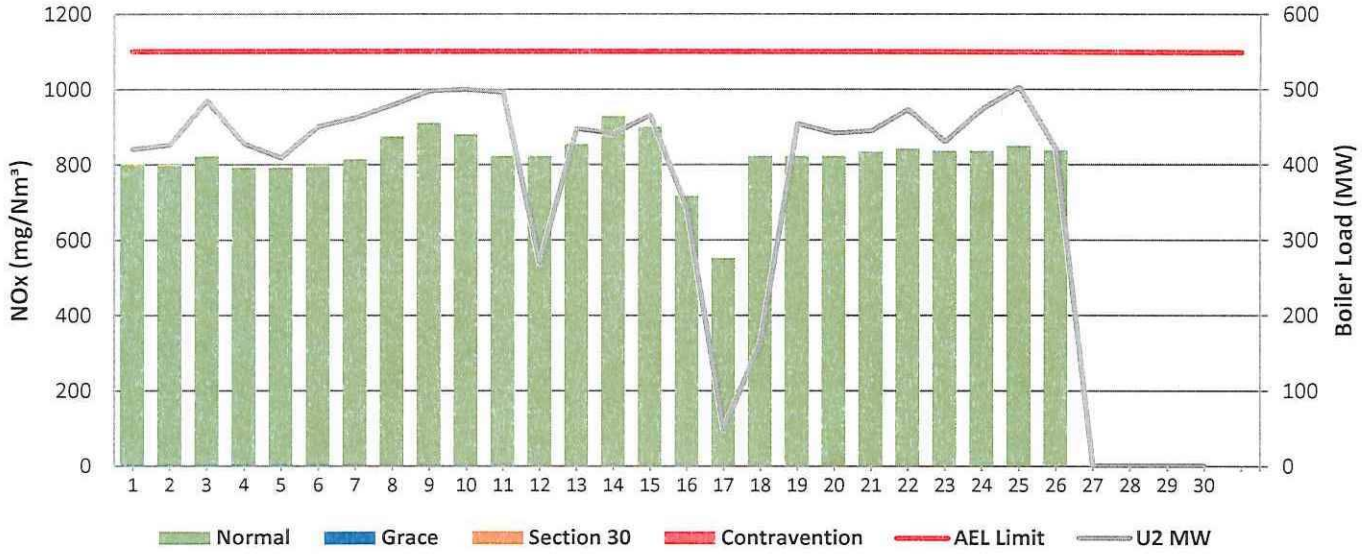


Figure 11: Duvha Unit 5 NO_x Emissions - November 2025

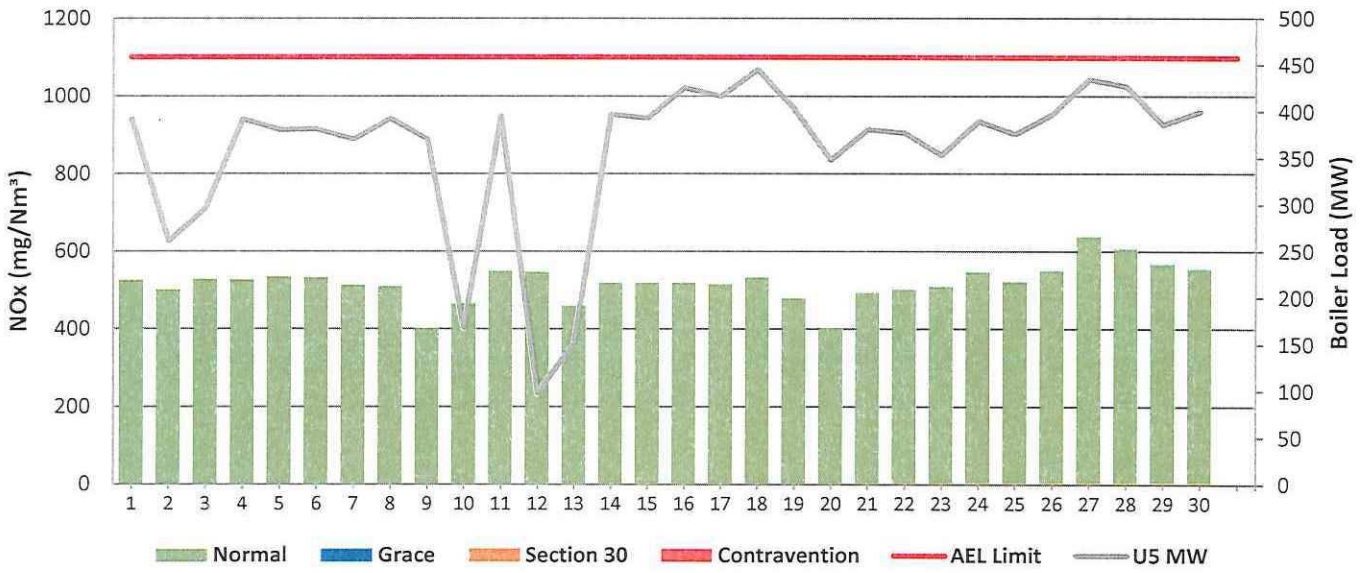
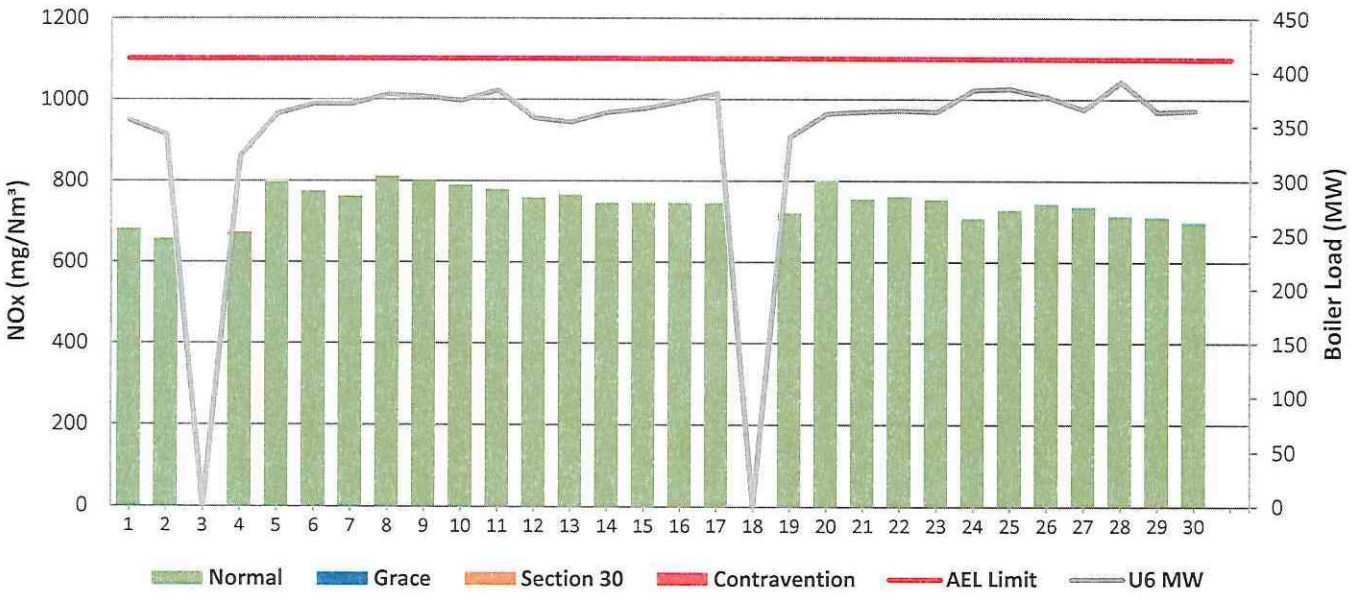


Figure 12: Duvha Unit 6 NO_x Emissions - November 2025



7. SHUT-DOWN AND LIGHT-UP INFORMATION FOR NOVEMBER 2025

	Event Description	Event 1		Event 2	
Unit 1	Breaker Open (BO)	1:00 am	2025/11/01	11:10 pm	2025/11/01
	Draught Group (DG) Shut Down (SD)	8:25 am	2025/11/01	DG did not trip or SD	DG did not trip or SD
	BO to DG SD (duration)	00:07:25	DD:HH:MM	n/a	DD:HH:MM
	Fires in time	1:35 pm	2025/11/01		
	Synch. to Grid (or BC)				
	Fires in to BC (duration)		DD:HH:MM		DD:HH:MM
	Emissions below limit from BC (end date)	not > limit	not > limit		
	Emissions below limit from BC (duration)		DD:HH:MM		DD:HH:MM

	Event Description	Event 1		Event 2		Event 3		Event 4	
Unit 2	Breaker Open (BO)	11:20 am	2025/11/12	7:30 am	2025/11/17	9:45 pm	2025/11/26	4:20 pm	2025/11/27
	Draught Group (DG) Shut Down (SD)	DG did not trip or SD	DG did not trip or SD	4:30 pm	2025/11/17	12:10 am	2025/11/27	DG did not trip or SD	DG did not trip or SD
	BO to DG SD (duration)	n/a	DD:HH:MM	00:09:00	DD:HH:MM	00:02:25	DD:HH:MM	n/a	DD:HH:MM
	Fires in time			7:10 pm	2025/11/17	4:15 am	2025/11/27		
	Synch. to Grid (or BC)			12:45 pm	2025/11/18				
	Fires in to BC (duration)		DD:HH:MM	00:17:35	DD:HH:MM		DD:HH:MM		DD:HH:MM
	Emissions below limit from BC (end date)			12:00 am	2025/11/20	not > limit	not > limit		
	Emissions below limit from BC (duration)		DD:HH:MM	01:11:15	DD:HH:MM		DD:HH:MM		DD:HH:MM

	Event Description	Event 1		Event 2		Event 3	
Unit 5	Breaker Open (BO)	4:30 pm	2025/11/02	3:30 am	2025/11/10	6:15 am	2025/11/12
	Draught Group (DG) Shut Down (SD)	6:10 pm	2025/11/02	8:40 am	2025/11/10	7:10 am	2025/11/12
	BO to DG SD (duration)	00:01:40	DD:HH:MM	00:05:10	DD:HH:MM	00:00:55	DD:HH:MM
	Fires in time	10:40 pm	2025/11/02	10:10 am	2025/11/10	6:15 am	2025/11/13
	Synch. to Grid (or BC)	6:10 am	2025/11/03	3:30 pm	2025/11/10	1:20 pm	2025/11/13
	Fires in to BC (duration)	00:07:30	DD:HH:MM	00:05:20	DD:HH:MM	00:07:05	DD:HH:MM
	Emissions below limit from BC (end date)	12:00 am	2025/11/04	7:00 am	2025/11/11	12:00 am	2025/11/14
	Emissions below limit from BC (duration)	00:17:50	DD:HH:MM	00:15:30	DD:HH:MM	00:10:40	DD:HH:MM

	Event Description	Event 1		Event 2	
Unit 6	Breaker Open (BO)	9:20 am	2025/11/02	7:30 am	2025/11/17
	Draught Group (DG) Shut Down (SD)	1:15 pm	2025/11/02	12:55 pm	2025/11/17
	BO to DG SD (duration)	00:03:55	DD:HH:MM	00:05:25	DD:HH:MM
	Fires in time	5:50 pm	2025/11/03	6:15 pm	2025/11/18
	Synch. to Grid (or BC)	2:40 am	2025/11/04	1:15 am	2025/11/19
	Fires in to BC (duration)	00:08:50	DD:HH:MM	00:07:00	DD:HH:MM
	Emissions below limit from BC (end date)	12:00 am	2025/11/05	12:00 am	2025/11/20
	Emissions below limit from BC (duration)	00:21:20	DD:HH:MM	00:22:45	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	Measures implemented to prevent reoccurrence and Dispersion modelling of pollutants where applicable	Date by which measures will be implemented.

9 GENERAL

Exceedances:

Particulate Matter

Unit 5

10/11/2025 – 12/12/2025

The unit was returning from a light up, so the emissions abatement equipment's were not yet fully effective as the operating temperatures and conditions were still not yet stable within the first 8 hours of the light up

Additionally, Unit 2 SOx and NOx monitor reliability was below 80% in October due to the following reasons

On the 10th to the 13th of October and again on the 18th to the 20th, the stack gas monitoring instruments were unable to record emissions data This was due to the failure of the 220 Volt power supply, which tripped as a result of heavy rainfall The continuous emissions monitoring systems (CEMS) became temporarily offline

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

10 S30 Incidents

There were no Section 30's this month

Boiler Plant Engineering Manager	24 Dec 2025 Date	Environmental Manager	2025/12/24 Date
Engineering Manager	2025-12-24 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