Eskom	Monthly Report	Kendal Power Station

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Content

1. Introduction

KENDAL POWER STATION MONTHLY EMISSIONS REPORT FOR THE MONTH OF MARCH 2026

This document serves as the monthly emissions report required in terms of Section 7.4 of Kendal Power Station Provisional Atmospheric Emission License (AEL), **17/4/AEL/MP312/11/15.**

This report reflects Unit 1 to Unit 6 gaseous and particulate emissions performance against the AEL limit for the month of March 2026 only.

2. Raw Materials and Products

Table 1- Quantity of Raw Materials and Products Consumption in March 2026

Raw Materials and Products	Raw Material Type	Units	Max Permitted Consumption Rate	Consumption Rate Mar-2026
	Coal	Tons	2 260 000	798 889
	Fuel Oil	Tons	5 000	8218.320
Production Rates	Product / By-Product Name	Units	Max Production Capacity Permitted	Indicative Production Rate Mar-2026
	Energy	GWh	3 062.304	1 364.390
	Ash	Tons	770 000	239 267.256
	RE Ash	kg/MWh	not specified	0.194

Note: The station has improved on fuel oil consumption due to improved milling plant availability. Units are operating with the required mills after the refurbishment. The cumulative fuel oil consumption has reduced but is still fluctuating due to commissioning and optimisation of refurbished mills as they come online. The consumption will reduce further because units will only run on fuel oil support during light ups & on emergencies only. The station has Progressed well on addressing milling plant issues through the milling plant recovery plan and the remaining actions are in progress to ensure full milling plant availability and the station is expected to be within the limit after full optimisation.

3. Abatement Technology

Table 2-Abatement Equipment Control Technology Efficiency in March 2026

Associated Unit/Stack	Technology Type	ESP Efficiency	Technology Type	SO_3 Plant Utilization
Unit 1	ESP + SO_3	99.933%	SO_3	25.8%
Unit 2	ESP + SO_3	99.940%	SO_3	90.3%
Unit 3	ESP + SO_3	99.842%	SO_3	96.8%
Unit 4	ESP + SO_3	99.952%	SO_3	93.5%
Unit 5	ESP + SO_3	99.730%	SO_3	83.9%
Unit 6	ESP + SO_3	99.944%	SO_3	74.2%

Note: The ESP plant does not have a bypass mode; therefore, it operates at 100% utilization. There is no Sulphur value for SO3 utilization due to switch failure on the server, however DCS signals used for its tripping alarms were used to get its utilization values. Sulphur flow will be available once we have commissioned the new PI system.

To achieve the required operational dust removal efficiency based on measured values, several assumptions such as:

- Coal ash content (%) and burnt rate mass
- Fly: Coarse ash ratio of 80:20 - 80% of fly-ash mass obtained from burnt coal goes to ESP
- Measurement of dust emission by Dust Monitor over a period (monthly)

Operational Dust Removal Efficiency

$$\eta = (1 - (Output/Input)) \times 100$$

$$\eta = 1 - \frac{(DustEmissionFromAQR\ ReportDustMonitor(tons)}{(CoalBurnt(tons) * \%AshContent * 80\%)} \times 100$$

4. Energy Source Characteristics

Table 3: Energy Source Material Characteristics for March 2026

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	*16-24 (MJ/kg)*	19.370
Sulphur Content	%	*<1 (%)*	0.850
Ash Content	%	*40 (%)*	29.950

5. Emissions Reporting

In terms of Section 59 of National Environmental Management: Air Quality Act (Act no.39 of 2004) and decision made by the Minister of DFFE, in respect of the Eskom exemption applications for new Minimum Emission Standards (MES) were granted and effective as of 01 April 2025 and 01 October 2025.

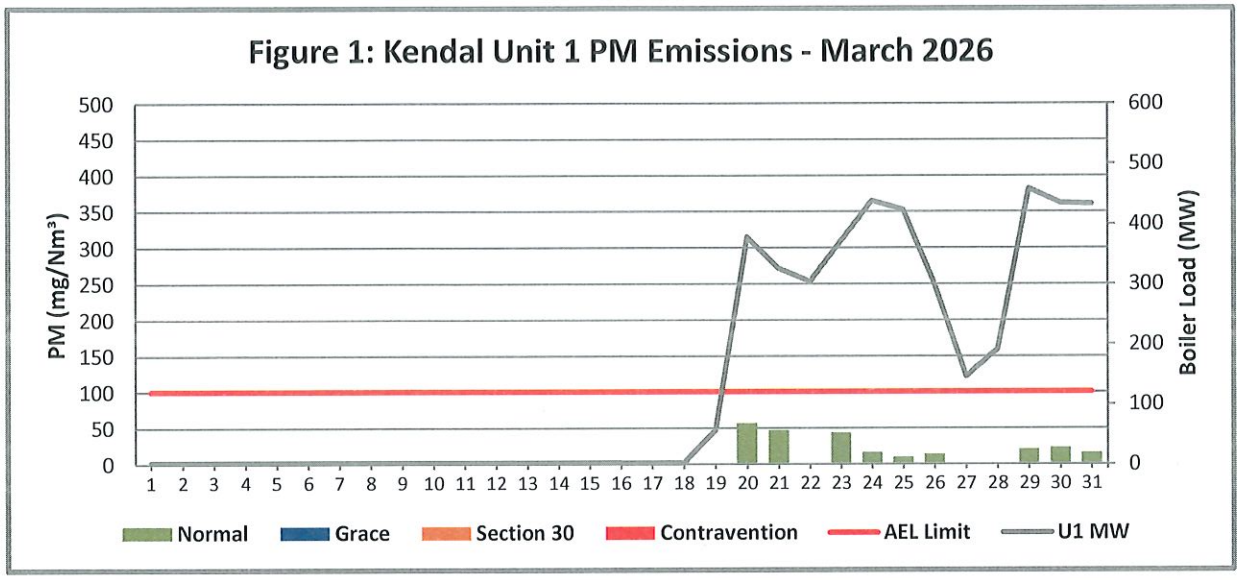
Table 4- New Minimum Emission Limits are as follows:

SO_2 Monthly = 3000 mg/Nm^3	Dust Daily =50 mg/Nm^3 (Unit 3,4 and 6) Dust Daily =100 mg/Nm^3 (Unit 1,2 and 5)	NO_2 Daily=750 mg/Nm^3

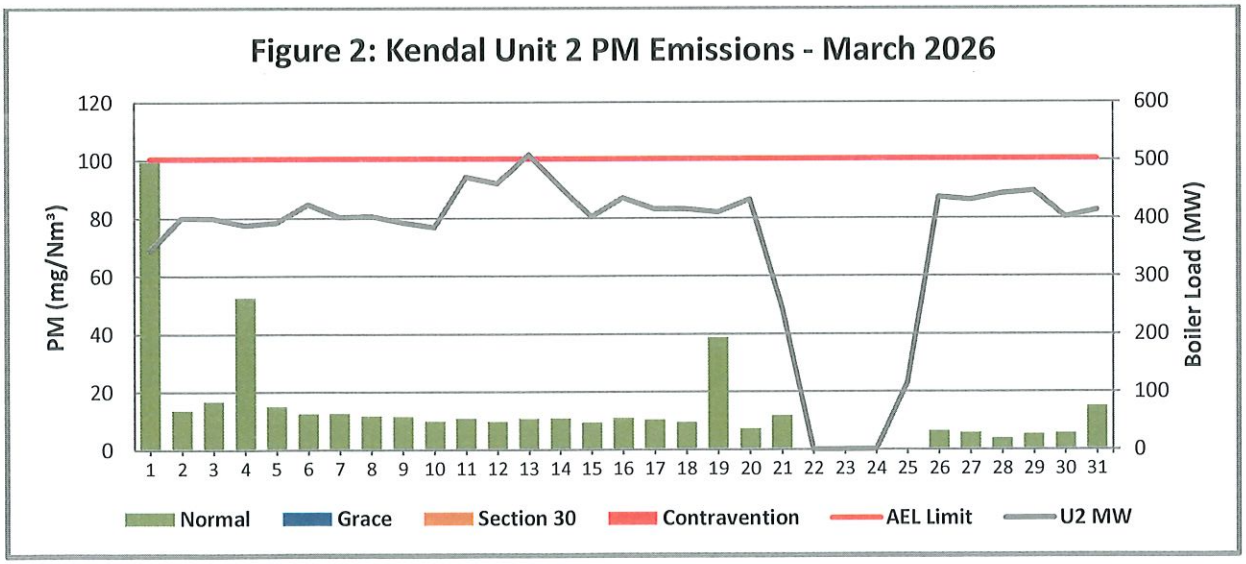
Table 5- Legend Description:

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

5.1 PM Daily Averages

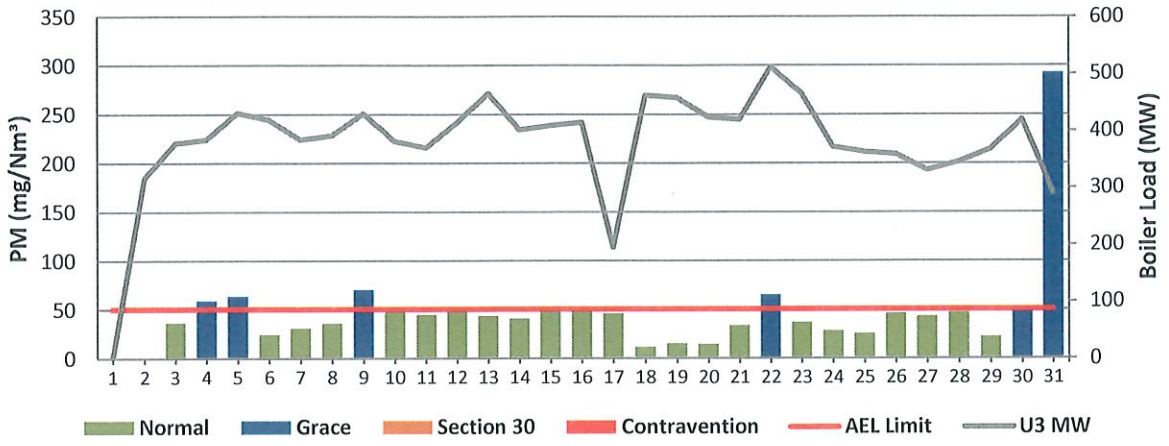


Note: Kendal Power Station unit 1 did not exceed PM limit of 100 mg/Nm³.



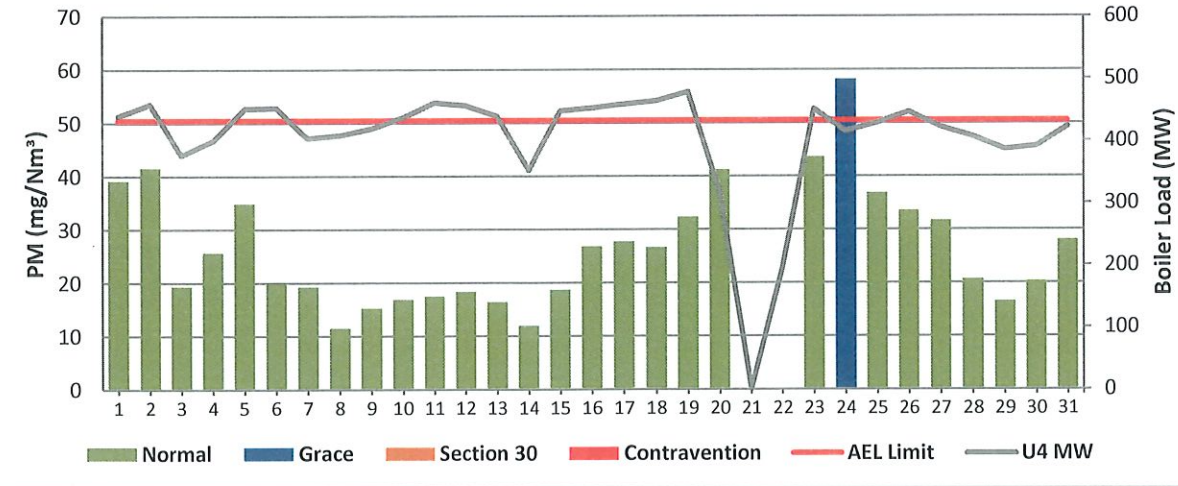
Note: Kendal Power Station unit 2 did not exceed PM limit of 100 mg/Nm³.

Figure 3: Kendal Unit 3 PM Emissions - March 2026



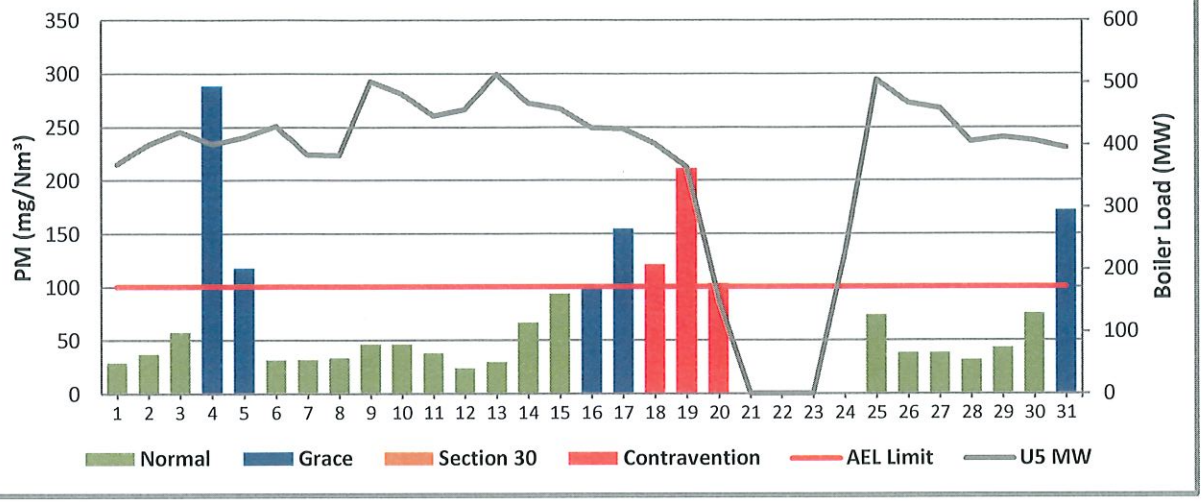
Note: Kendal Power Station Unit 3 exceeded the PM limit of 50 mg/Nm³ in March 2026 due to plant faults. Exceedances occurred for 13 hours on 04 March and 14 hours on 05 March during unit light-up, as well as underperformance in Field 11,13,22, 27, and 45 because of ash backlogs, with PCP 11 HP1 shut and PCPs 12, 13, 22, and 24 HP1 restricted to 35% open. Further exceedance of nine hours on 09 March resulted from reduced rapping on precipitators 6 and 7, a faulty SO_3 plant converter air dilution valve, and overload trips on (LH) DE 4. On 22 March, the unit exceeded the limit for 19 hours due to underperforming fields (F13, F22, F23, F24, F25, F27, F32, and F45) with suspected internal defects caused by plate misalignment. Additional exceedances occurred for 13 hours on 30 March and 23 hours on 31 March because of faulty communication bus on Field 45, low voltage on Field 41, and milling issues.

Figure 4: Kendal Unit 4 PM Emissions - March 2026



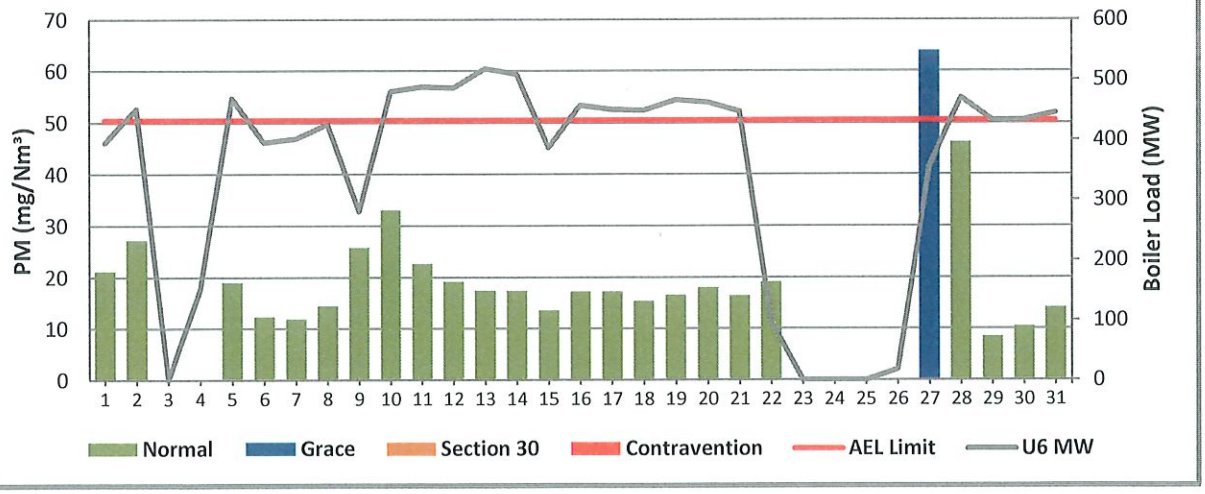
Note: Kendal Power Station Unit 4 exceeded the PM limit of 50 mg/Nm³ on 24 March 2026 for approximately 13 hours due to ESP performance issues. These were caused by faults such as dirty plates and loose wires in fields F16, F21, F41, F27, F31, F32, F33, F35, and F44, resulting in underperformance.

Figure 5: Kendal Unit 5 PM Emissions - March 2026



Note: Kendal Power Station Unit 5 exceeded the particulate matter limit of 100 mg/Nm³ in March 2026 due to SO_3 plant failures and electrostatic precipitator field defects. Exceedances started on 04 March for 23 hours continued to 05 March 8 hours due to defective SO_3 injector lance thermocouple caused by a burnt cable, as well as electrical faults on Fields 16 and 35. Further exceedances were recorded on 16 for 24 hours, 17 for 15 hours, 18 for 21 hours, 19 for 8 hours, and 20 march for 20 hours when the SO_3 plant system tripped on high converter outlet temperature due to insufficient blower flow and underperformance of fields (12, 15, 22, 24, 33, 35, 37, 43, and 44). Of these, Fields (12, 13, 22, 24, 25, 33, 34, 43, and 44) due to short-circuited with suspected broken wiring, as well as internal defects. On 31 March 2026, this unit exceeded the limit for 12 hours due to a Field 14 communication bus fault which led to ash backlogs.

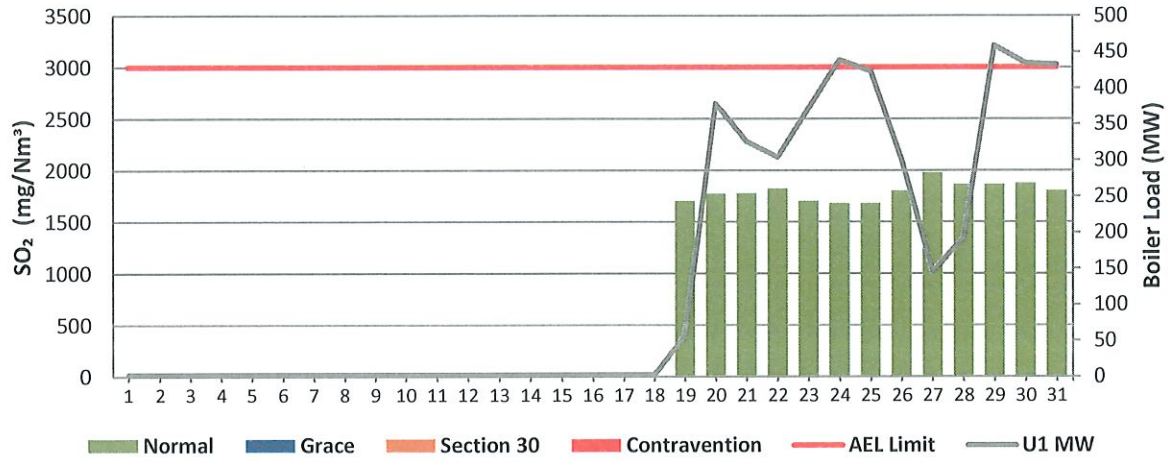
Figure 6: Kendal Unit 6 PM Emissions - March 2026



Note: Kendal Power Station Unit 6 exceeded the PM limit of 50 mg/Nm³ on 27 March 2026 for a duration of 20 hours due to ESP performance issues, such as low secondary voltage on Fields 12,13, 15, 22, 23, and 34, repeated overload trips on CE Rappers 1 and 2 (RH) caused by ash backlogs, and Field 27 was affected by a communication bus fault.

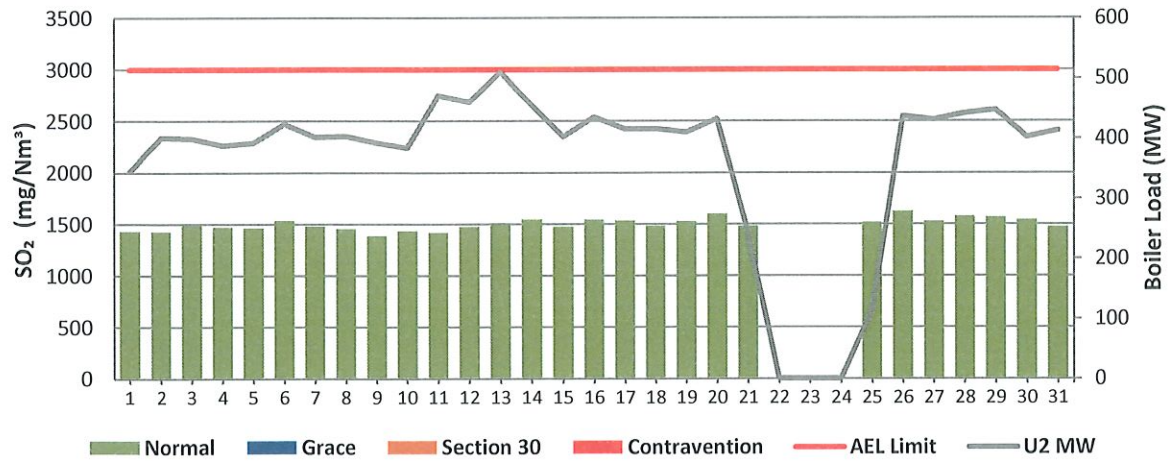
5.2 Sox Daily Averages

Figure 7: Kendal Unit 1 SO_2 Emissions - March 2026

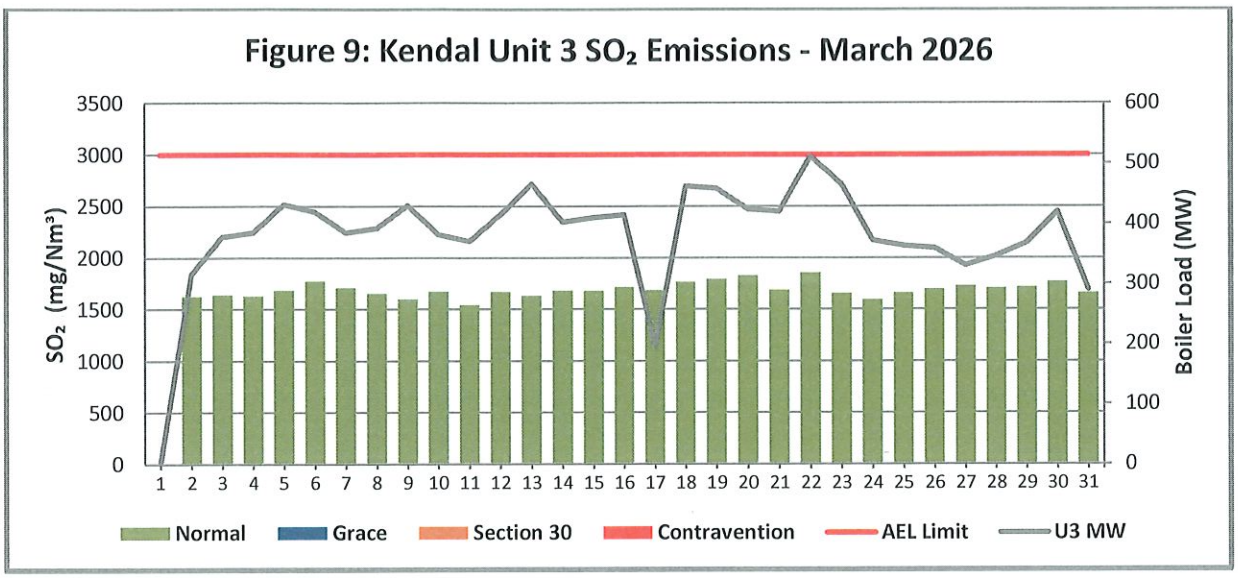


Note: Kendal Power Station unit 1 did not exceed SOx limit of 3000 mg/Nm³.

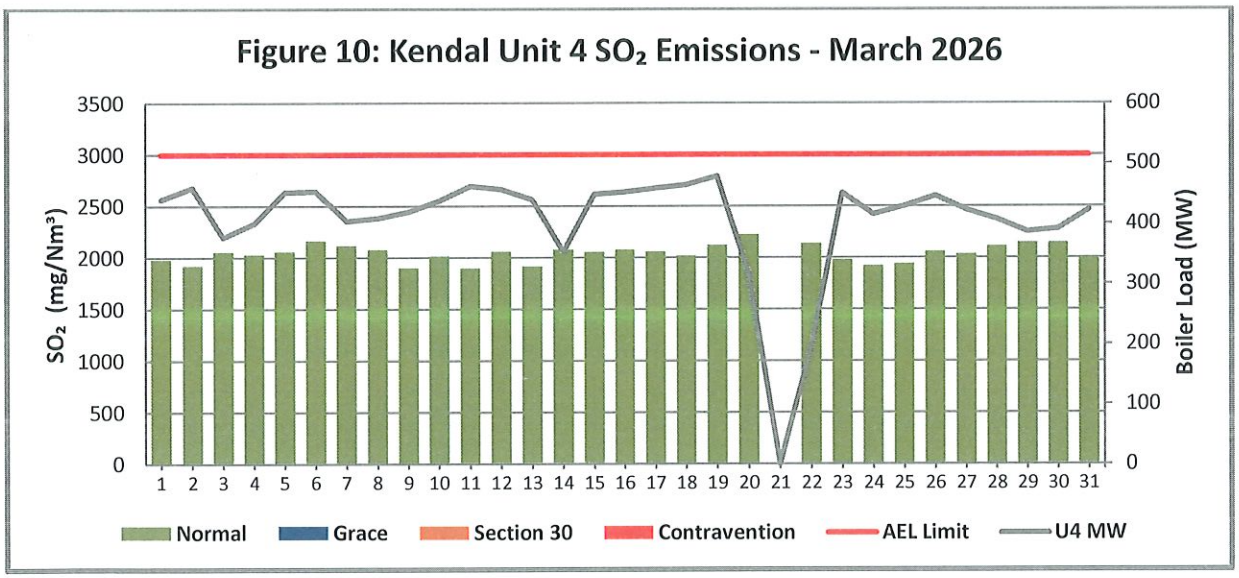
Figure 8: Kendal Unit 2 SO_2 Emissions - March 2026



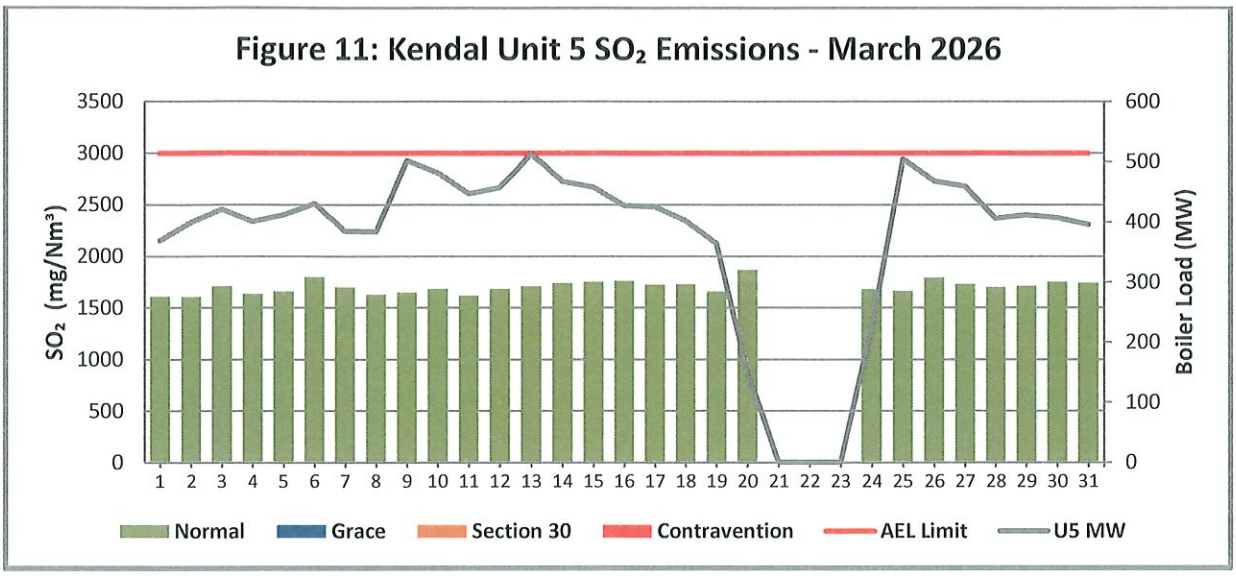
Note: Kendal Power Station unit 2 did not exceed SOx limit of 3000 mg/Nm³.



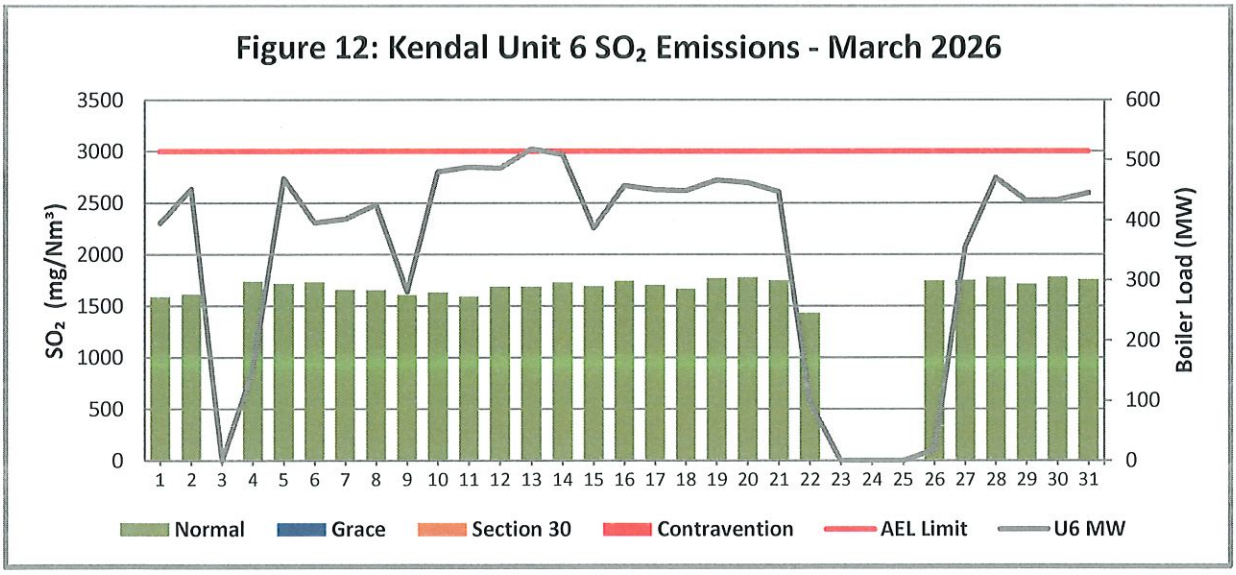
Note: Kendal Power Station unit 3 did not exceed SOx limit of 3000 mg/Nm³.



Note: Kendal Power Station unit 4 did not exceed SOx limit of 3000 mg/Nm³.

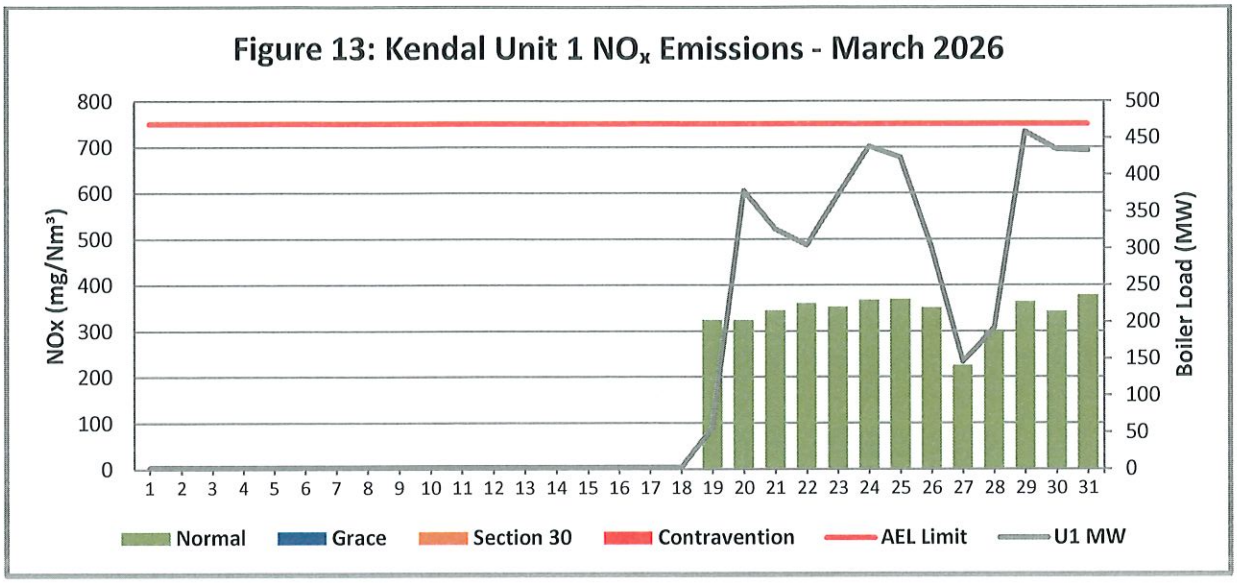


Note: Kendal Power Station unit 5 did not exceed SOx limit of 3000 mg/Nm³.

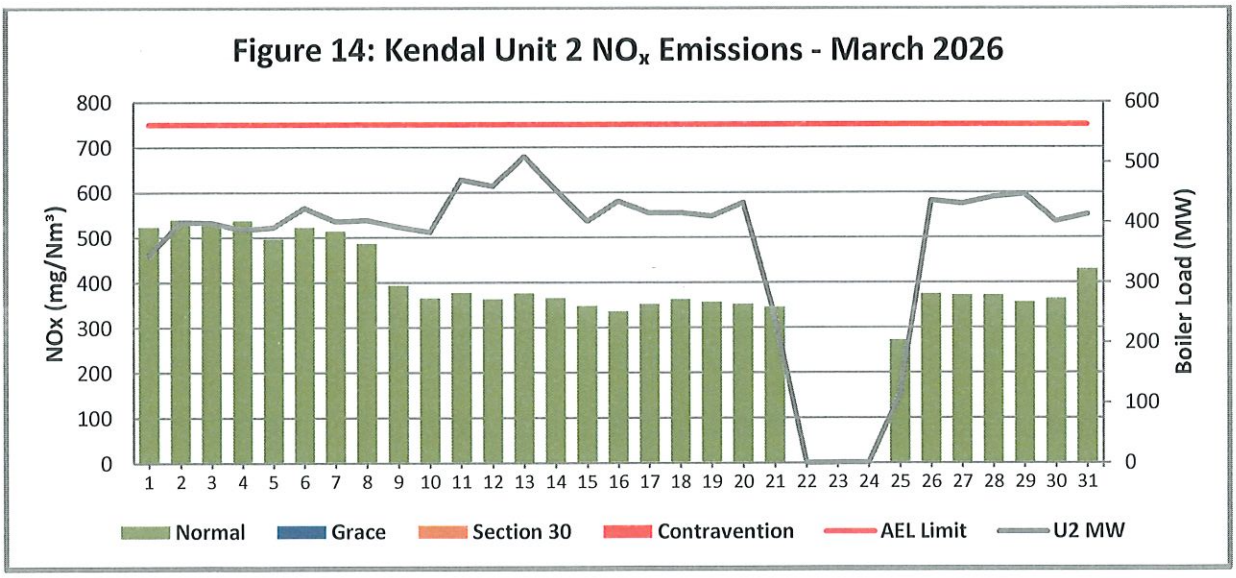


Note: Kendal Power Station unit 6 did not exceed SOx limit of 3000 mg/Nm³.

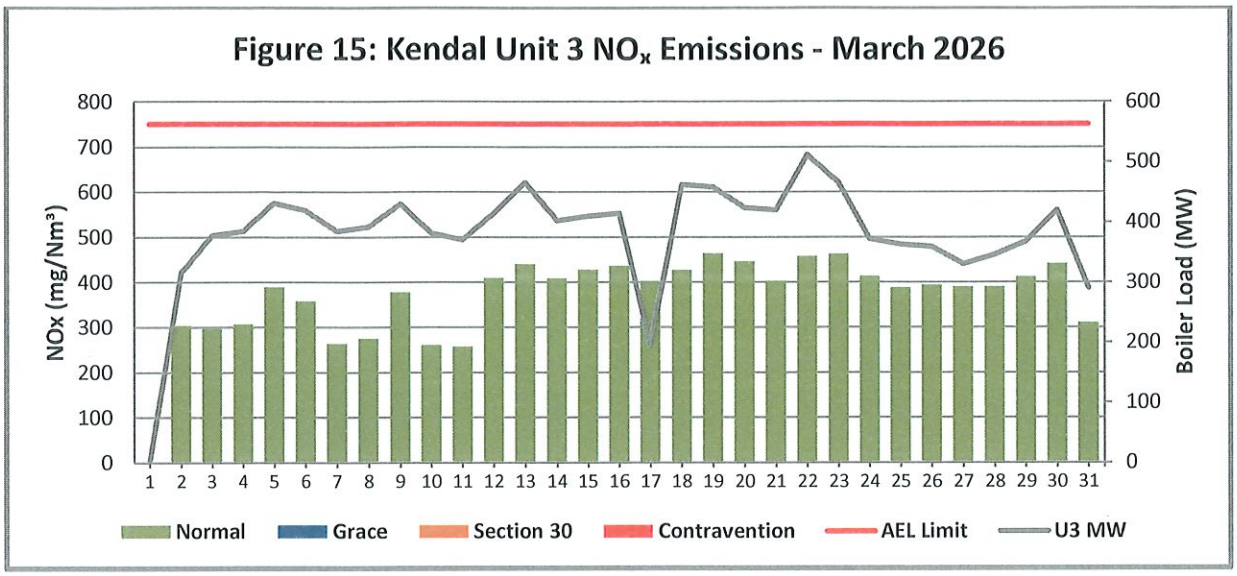
5.3 NOx Daily Averages



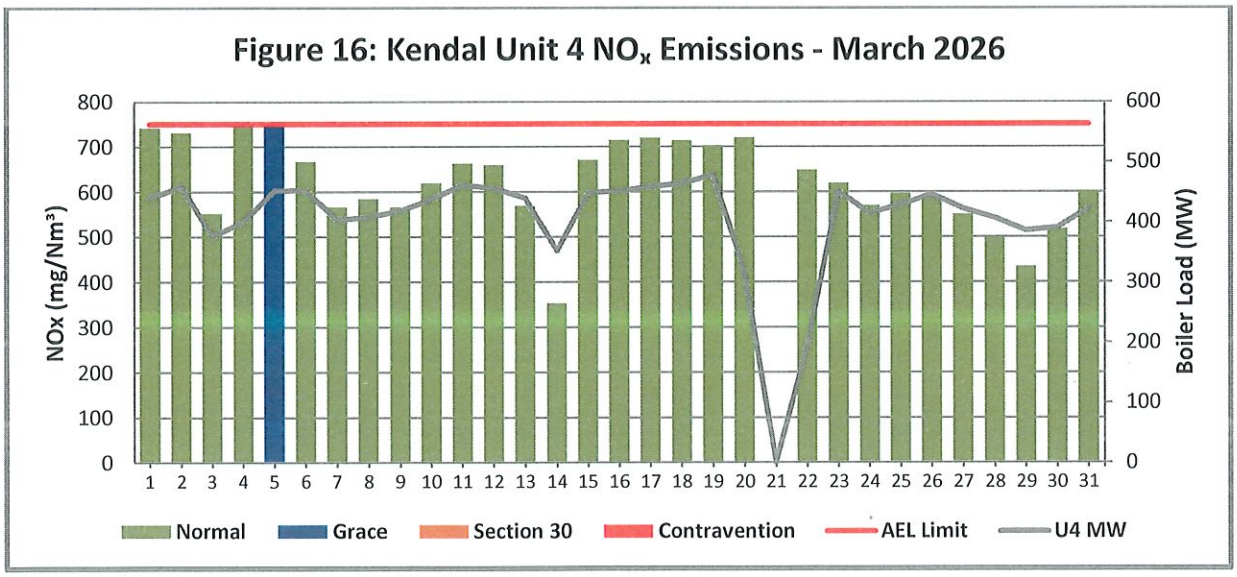
Note: Kendal Power Station unit 1 did not exceed NOx limit of 750 mg/Nm³.



Note: Kendal Power Station unit 2 did not exceed NOx limit of 750 mg/Nm³.

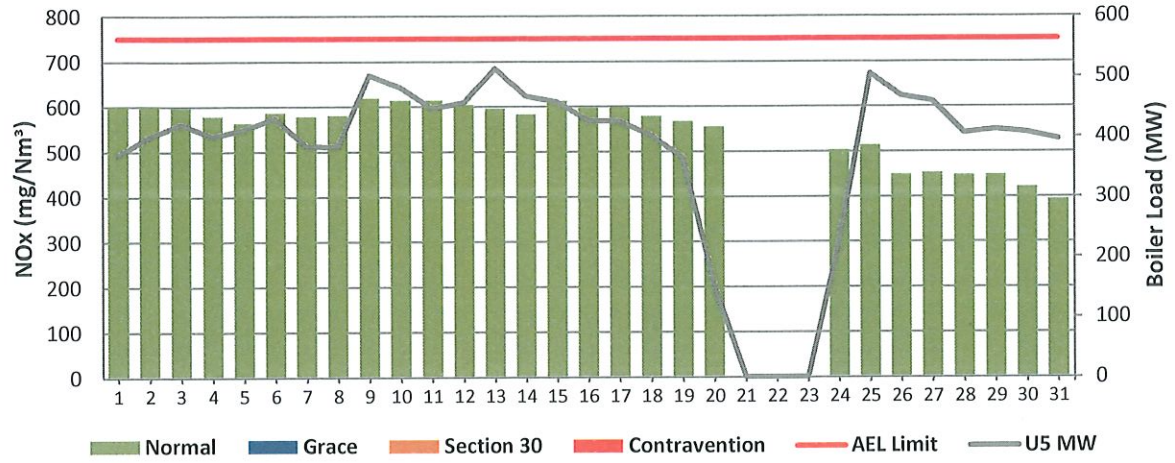


Note: Kendal Power Station unit 3 did not exceed NOx limit of 750 mg/Nm³.



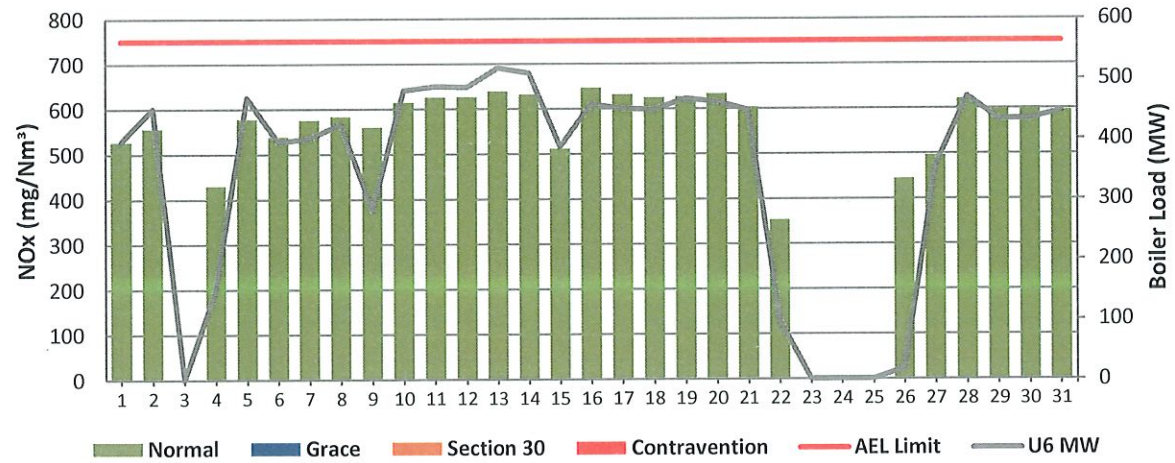
Note: Kendal Power Station Unit 4 exceeded the NOx limit of 750 mg/Nm on the 5 March 2026 for a the duration of 16 hours due Milling plant underperformance issues.

Figure 17: Kendal Unit 5 NO_x Emissions - March 2026



Note: Kendal Power Station unit 5 did not exceed NOx limit of 750 mg/Nm³.

Figure 18: Kendal Unit 6 NO_x Emissions - March 2026



Note: Kendal Power Station unit 6 did not exceed NOx limit of 750 mg/Nm³.

Table 6-Monthly Tonnages for March 2026

Associated Unit/Stack	PM (tons)	SO_2 (tons)	NO_x (tons)
Unit 1	8.9	996	195
Unit 2	20.7	2 056	561
Unit 3	57.5	2 247	516
Unit 4	36.4	2 931	903
Unit 5	121.9	2 278	745
Unit 6	18.6	1 919	674
SUM	264.03	12 428	3 594

Table 7-Monthly Averages Concentration for March 2026 in mg/Nm3

Associated Unit/Stack	PM	SO_2	NO_2
Unit 1	27.6	1 795.8	338.8
Unit 3	16.2	1 501.1	407.0
Unit 2	49.2	1 690.8	380.4
Unit 4	26.6	2 045.2	621.8
Unit 5	106.8	1 704.9	552.1
Unit 6	20.7	1 693.4	573.2

6. Continuous Emissions Monitoring System (CEMS)

Table 8- Periods during which was inoperative/malfunctioning.

Date	CEMS status	Comments
March 2026	Malfunctioning	The station gas monitors for Units 3 and 5 have been reading CO_2 and O_2 inaccurately, while Unit 2 and 6 has been reading O_2 inaccurately. To ensure accurate reporting for this period, the QAL2 average (parallel test) values were used. In cases where the monitors experienced errors, surrogate values were used to the raw data.

Table 9-CEMS Monitor Reliability Percentage

Associated Unit/Stack	PM	SO_2	NO_2	O_2
Unit 1	100.0	100.0	95.6	100.0
Unit 2	98.5	100.0	99.7	100.0
Unit 3	100.0	100.0	99.5	100.0
Unit 4	100.0	100.0	98.0	100.0
Unit 5	99.4	100.0	100.0	100.0
Unit 6	100.0	100.0	100.0	100.0

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

In terms of the minimum emissions standard, the requirement is that a monitor should be 80% reliable on a monthly average. The monitor reliability refers to data reliability because the assumed value of 99.325% reliability is compared to the dust concentration signal. If the dust concentration signal is above 99.325% opacity, the data information is no longer reliable because the monitor reading is out of its maximum reading range. The data reliability looks at how many times the dust concentration signal goes above 98% over a period e.g. 24 hours.

The formula is as follows:

= (1 – (count hours above 99.325%/24hours)) x 100

7. CEMS Calibration and Equipment Used for Calibration

Calibration certificates to be made available upon request.

8. Validity of Correlation and Parallel Test

Table 10-Validity of Correlation and Parallel Test.

Associated Unit/Stack	Correlation Test (PM)	Parallel Test (NO_2, CO_2, O_2, SO_2)
Unit 1	Valid until March 2027	Valid until September 2027
Unit 2	Valid until May 2025	Valid until August 2027
Unit 3	Valid Until February 2027	Valid until October 2027
Unit 4	Valid until February 2028	Valid until January 2028
Unit 5	Valid until June 2026(Spot test)	Valid until March 2027
Unit 6	Valid until March 2027	Valid until October 2027

9. Complaint Register

Table 11-Complaints for the month of March 2026

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
N/A	N/A	N/A	N/A	N/A