



Monthly Report

Kendal Power Station

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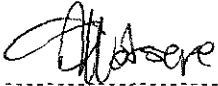
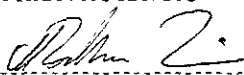


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Content

| | | |
|-----|---|----|
| 1 | Introduction | 3 |
| 2 | Raw Materials and Products | 3 |
| 3 | Abatement Technology | 4 |
| 4 | Energy Source Characteristics | 4 |
| 5 | Emissions Reporting | 5 |
| 5.1 | PM Daily Averages | 5 |
| 5.2 | Sox Daily Averages | 9 |
| 5.3 | NOx Daily Averages | 12 |
| 6 | Continuous Emissions Monitoring System (CEMS) | 15 |
| 7 | CEMS Calibration and Equipment Used for Calibration | 16 |
| 8 | Validity of Correlation and Parallel Test | 16 |
| 9. | Complaint Register | 16 |

1. Introduction

KENDAL POWER STATION MONTHLY EMISSIONS REPORT FOR THE MONTH OF JANUARY 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 January 2026 only.

2. Raw Materials and Products

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

| Raw Materials and Products | Raw Material Type | Units | Max Permitted Consumption Rate | Consumption Rate Jan-2026 |
|----------------------------|-------------------|-------|--------------------------------|---------------------------|
| | Coal | Tons | 2 260 000 | 403 513 |
| Fuel Oil | Tons | 5 000 | 7467 400 | |

| Production Rates | Product / By-Product Name | Units | Max Production Capacity Permitted | Indicative Production Rate Jan-2026 |
|------------------|---------------------------|--------|-----------------------------------|-------------------------------------|
| | Energy | GWh | 3 062 304 | 706 251 |
| | Ash | Tons | 770 000 | 121 255 657 |
| | RE Ash | kg/MWh | not specified | 0 137 |

Note: Max energy rate = AEL capacity [4,116 MW] × 24 hrs × days in month – 1,000 (to convert to GWh)

The station is exceeding the fuel oil consumption limit due to milling plant failures. Most units do not have standby mills because of defective girth gears and pinions that are awaiting spare-part delivery. Worn girth gears and pinions are causing high drive train vibrations, resulting in a high failure rate of mill motors and gearboxes. Consequently, Kendal's cumulative fuel oil consumption has increased, mainly because units are running on fuel oil support while ongoing maintenance is in progress. The station is actively working to resolve the milling plant issues through the milling plant recovery plan.

3. Abatement Technology

Table 2-Abatement Equipment Control Technology Efficiency in January 2026

| Associated Unit/Stack | Technology Type | ESP Efficiency | Technology Type | SO ₃ Plant Utilization |
|-----------------------|-----------------------|----------------|-----------------|-----------------------------------|
| Unit 1 | ESP + SO ₃ | 99 959% | SO ₃ | 61 3% |
| Unit 2 | ESP + SO ₃ | Off-line | SO ₃ | Off-line |
| Unit 3 | ESP + SO ₃ | 99 892% | SO ₃ | 74 2% |
| Unit 4 | ESP + SO ₃ | 99 874% | SO ₃ | 77 4% |
| Unit 5 | ESP + SO ₃ | 99 878% | SO ₃ | 32 3% |
| Unit 6 | ESP + SO ₃ | Off-line | SO ₃ | 3 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

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

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

4. Energy Source Characteristics

Table 3 Energy Source Material Characteristics for January 2026

| Coal Characteristic | Units | Stipulated Range | Monthly Average Content |
|---------------------|-------|------------------|-------------------------|
| CV Content | MJ/kg | 16-24 (MJ/kg) | 19 390 |
| Sulphur Content | % | <1 (%) | 0 830 |
| Ash Content | % | 40 (%) | 30 050 |

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.

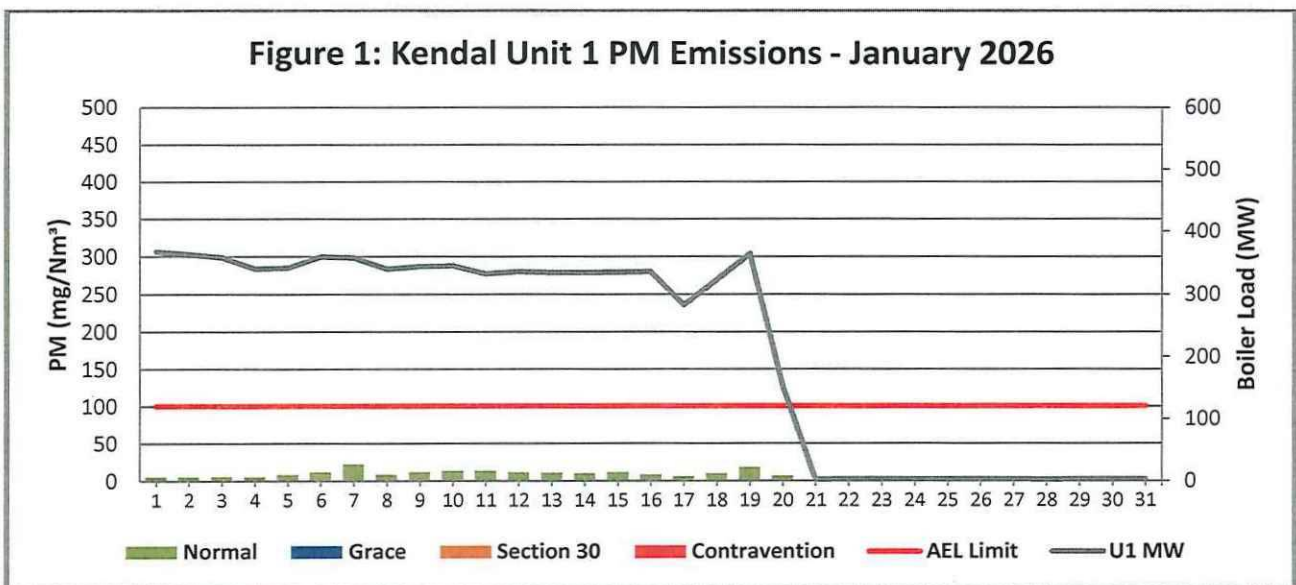
Table 4- New Minimum Emission Limits are as follows:

| | | |
|---|---|--|
| 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 |
|---|---|--|

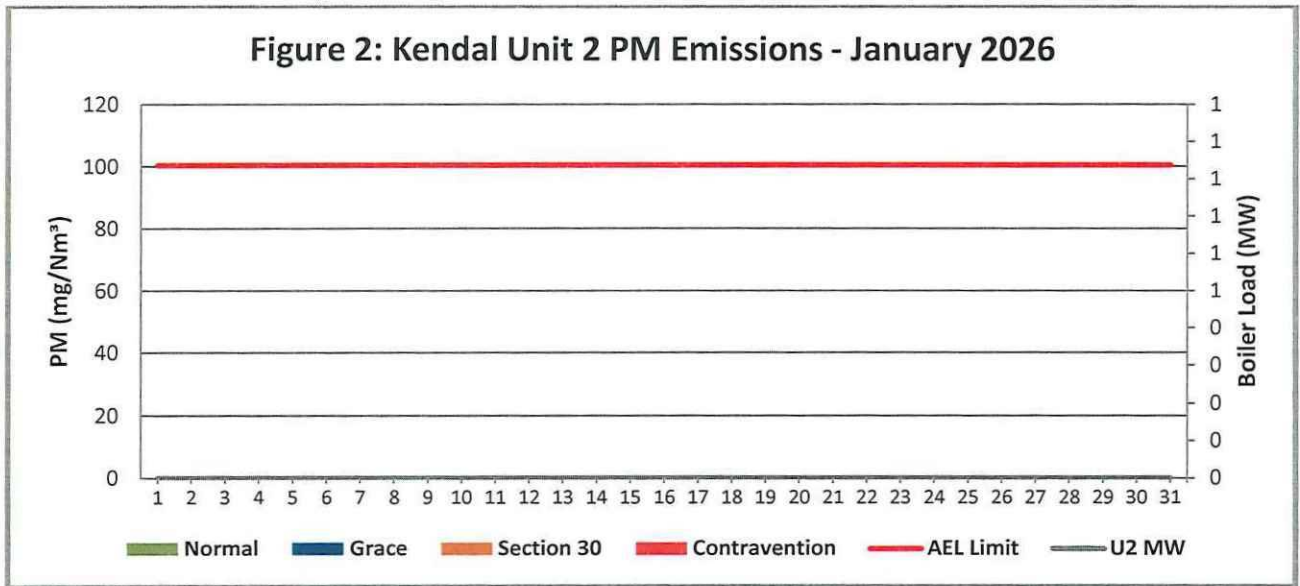
Table 5- Legend Description:

| 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 |

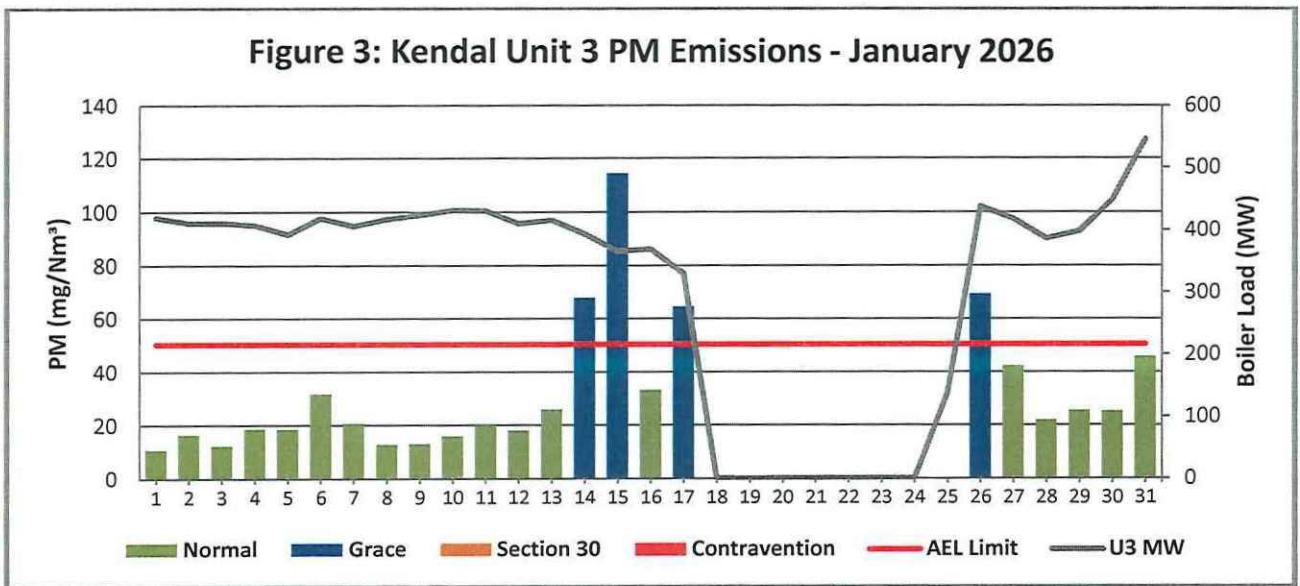
5.1 PM Daily Averages



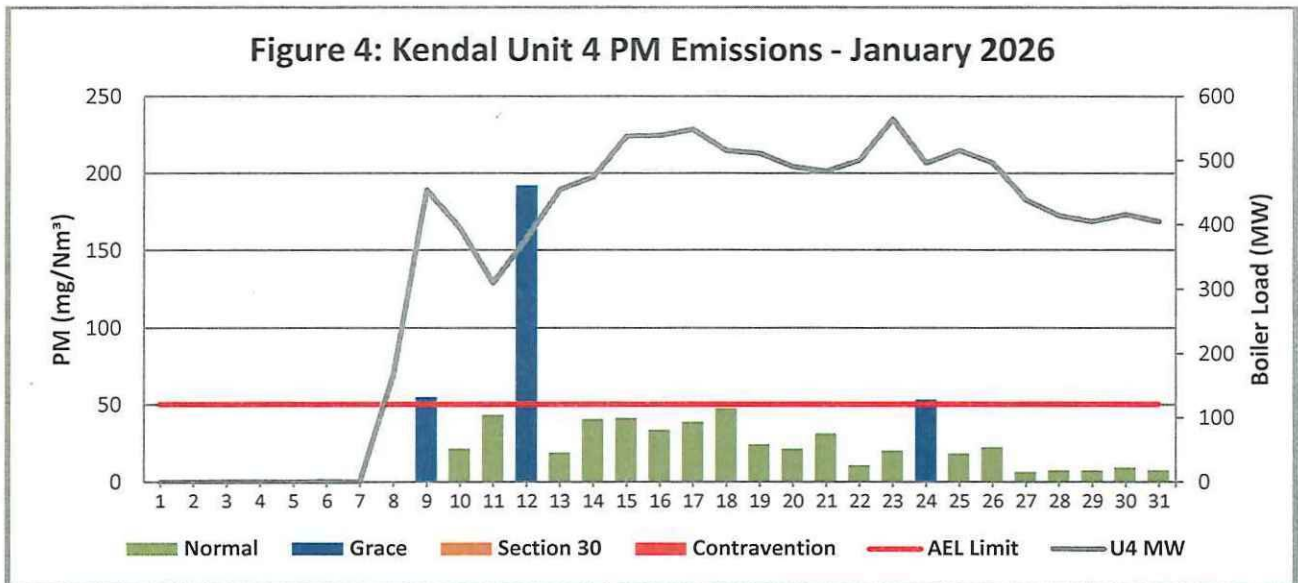
Note: Kendal Power Station unit 1 did not exceed PM limit of 100 mg/Nm³.



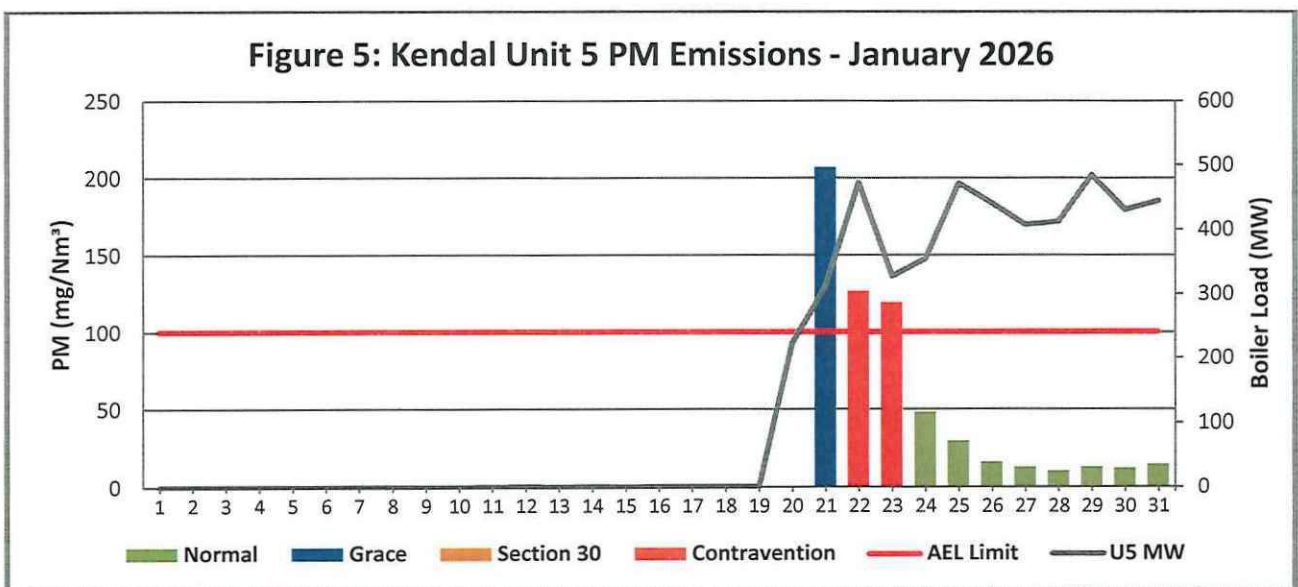
Note: Kendal Power Station unit 2 was off load.



Kendal Power Station Unit 3 exceeded the particulate matter (PM) limit of 50 mg/Nm³ for a total of 66 hours in January 2026. This unit recorded exceedances on 14 January for 11 hours and on 15 January for 23 hours due to damaged soot-blowing cables and the underperformance of Electrostatic Precipitators (ESP) fields F13, F14, F27, and F45. Poor performance of these fields was due to ash backlogs. A further exceedance occurred on 17 January for 14 hours during the unit trip. Additional exceedances were recorded on 26 January for 18 hours during unit light-up which caused unstable combustion conditions. Additional issues on this unit include the tripping of Fields F22, F36, and F41 due to short-circuit conditions further reduced ESP availability and contributed to the total recorded emission exceedance hours for the month.

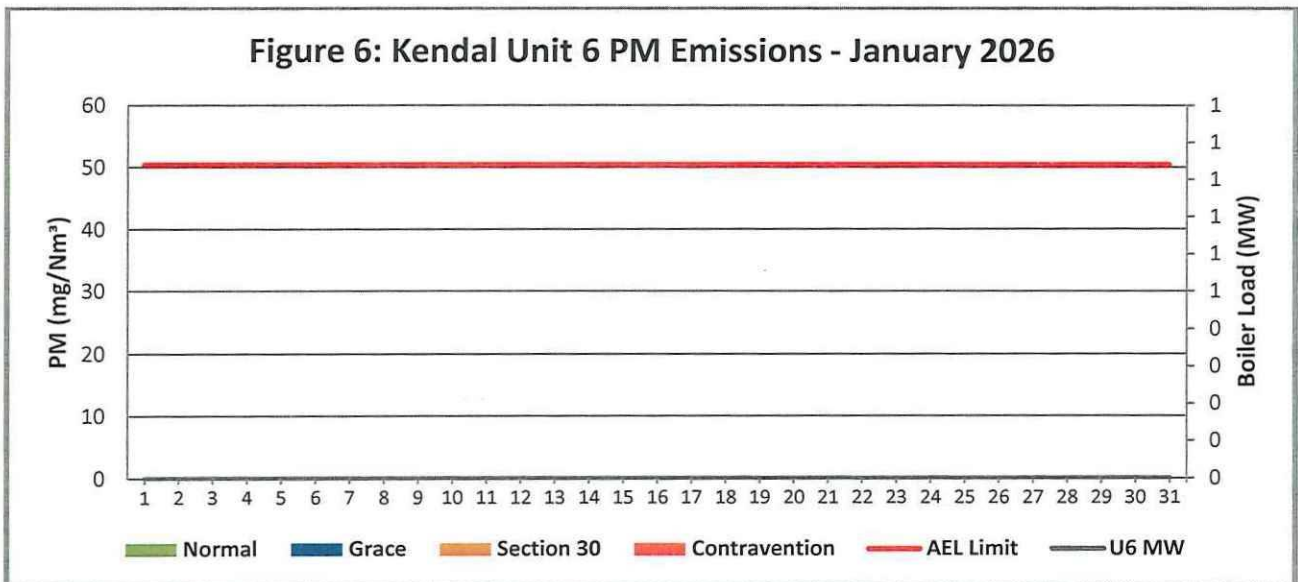


Kendal Power Station Unit 4 exceeded the particulate matter (PM) limit of 50 mg/Nm³ for a total of 32 hours in January 2026. This unit recorded exceedances on 09 January for 10 hours during unit light-up which caused unstable combustion conditions. This unit also recorded exceedances on the 12 January for 14 hours due to ash backlogs affecting multiple ESP fields (F21, F27, F31, F32, F33, F11, F41, F42, F44), while F46 remained on manual operation. High BET levels were causing short-circuit conditions on F17 and F27, underperformance on fields (F16, F31, F44), and a defective spindle on HCB12. Faulty Discharge Electrode (DE) rapper signal limited visibility of ESP field trips, further contributing to discharge performance issues. Furthermore, on 24 January, a defective steam-pressure control (Fischer) valve caused low steam temperatures all these defects contributed to the total recorded emission exceedance hours for the month.



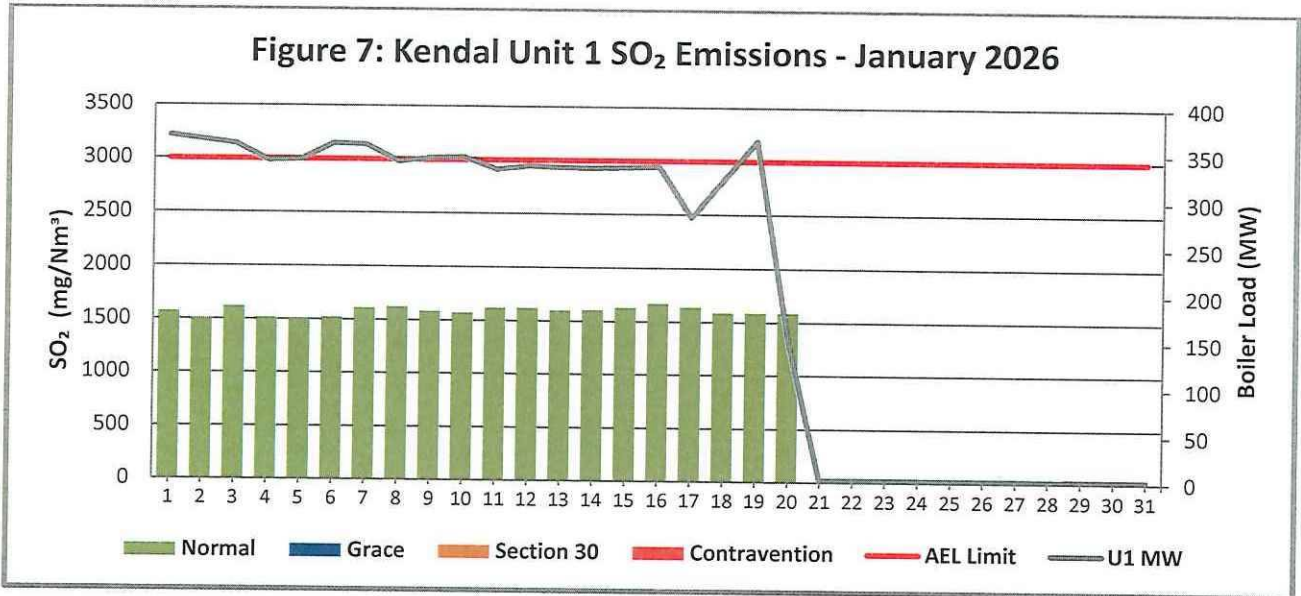
Kendal Power Station Unit 5 exceeded the particulate matter (PM) limit of 100 mg/Nm³ for a total of 60 hours in January 2026. This unit recorded exceedances on 21 January for 18 hours during unit light-up, which caused unstable combustion conditions. This was followed by a unit trip, which contributed to exceedances on 22 January for 24 hours due to unstable combustion conditions, as well as ash handling constraints resulting from ash backlogs. On the 23 of January this unit exceeded for 18 hours due to Five SO₃ injector lance thermocouples found defective due to burnt cables, circuit-breaker, firmware alarms errors on F14 with LH and RH CE rappers operating local contributed to reduced ESP effectiveness. Throughout the month, the ESP fields experienced electrical and performance failures, including short circuit conditions on F31, F41, and F23; electrical faults on F16, F35, and F45; persistent underperformance on F27, F34, F44, and F46; and F24 tripping due to a defective coolant level sensor, which further contributed to the total recorded emission exceedance hours for the month.

Figure 6: Kendal Unit 6 PM Emissions - January 2026

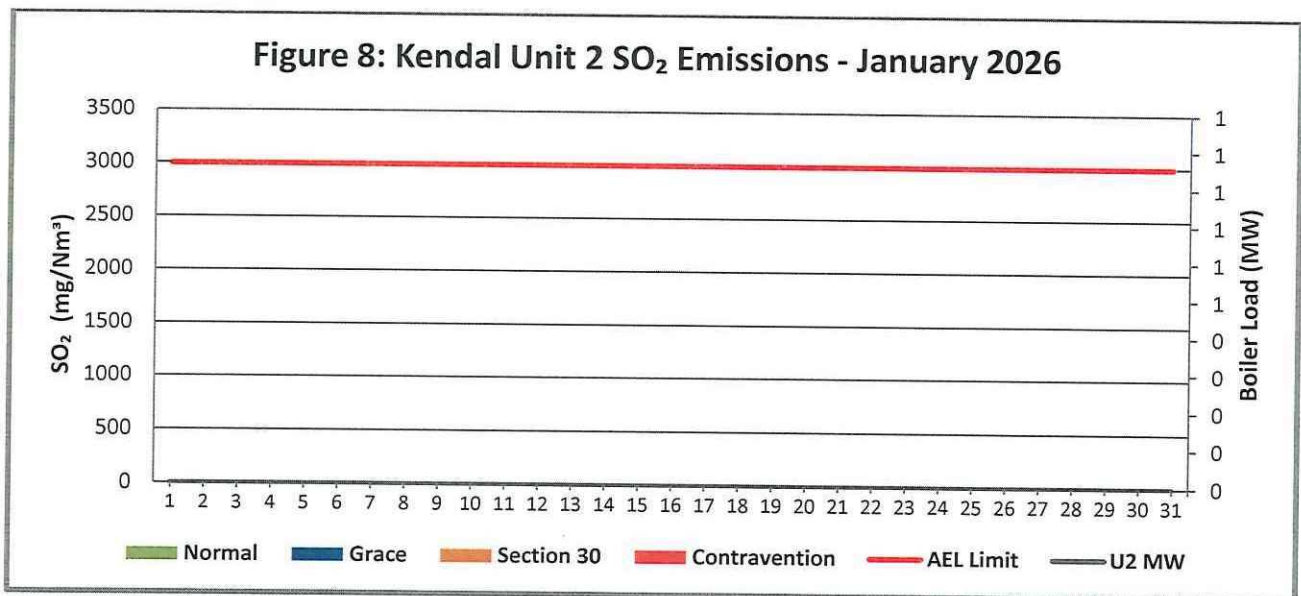


Note: Kendal Power Station unit 6 was off load.

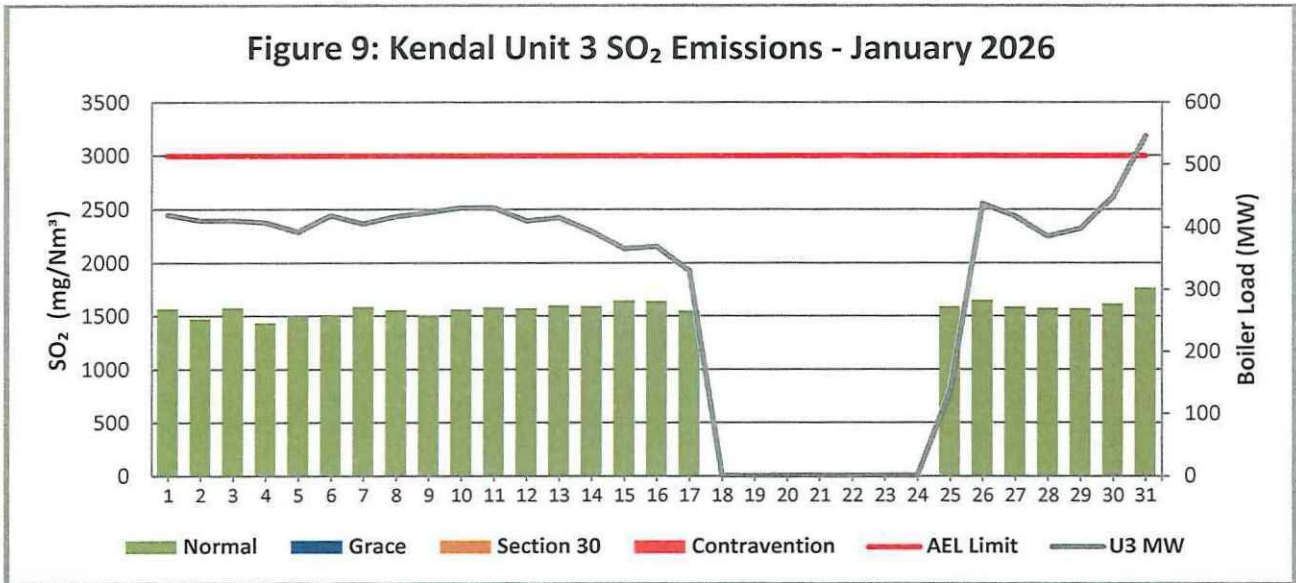
5.2 Sox Daily Averages



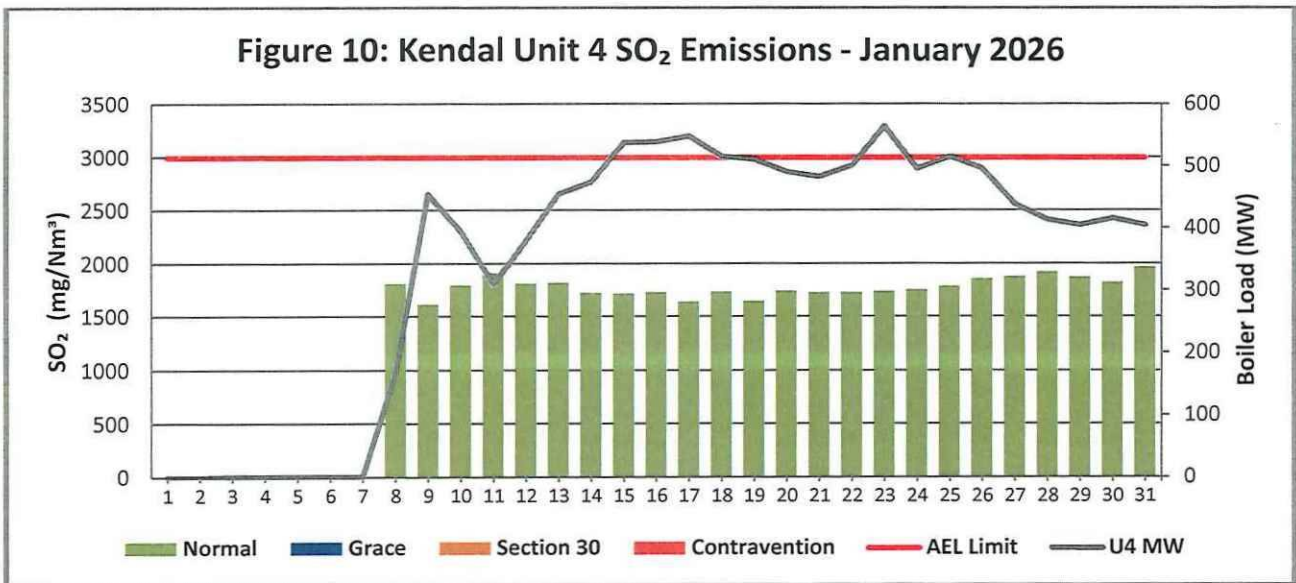
Note: Kendal Power Station unit 1 did not exceed SO_x limit of 3000 mg/Nm³.



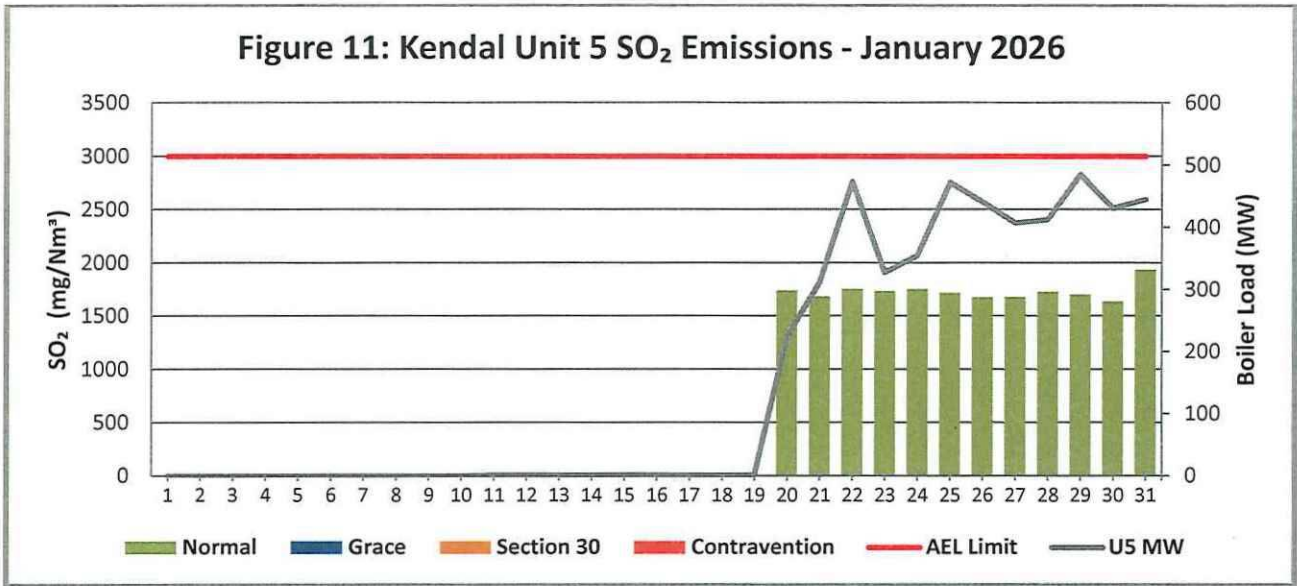
Note: Kendal Power Station unit 2 was off load.



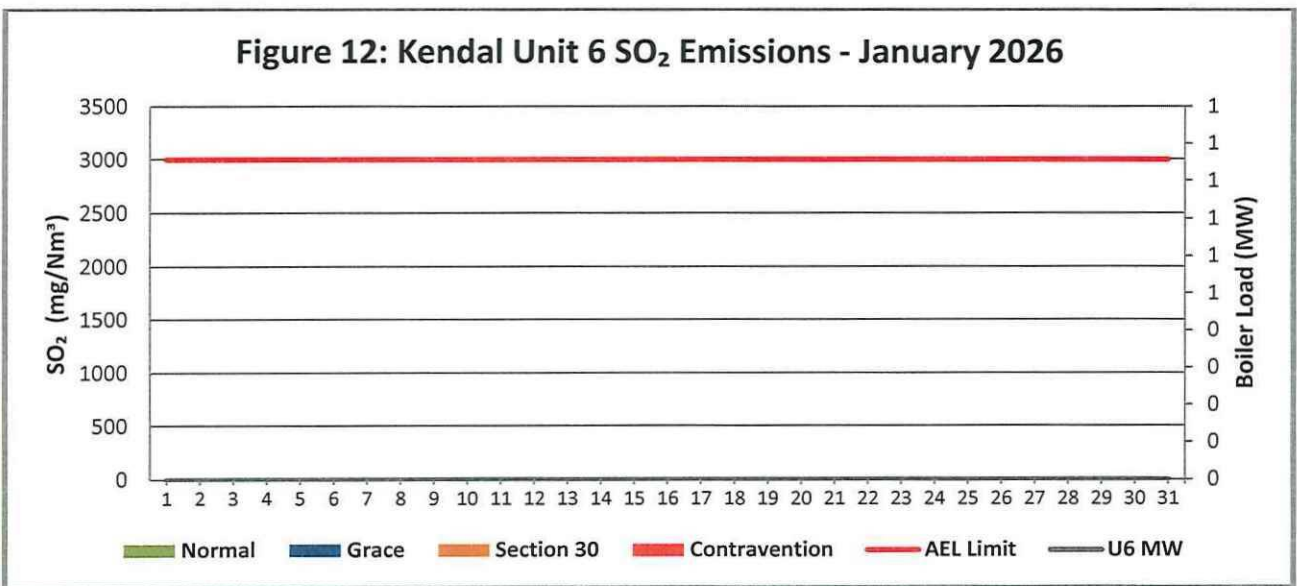
Note: Kendal Power Station unit 3 did not exceed SO_x limit of 3000 mg/Nm³.



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

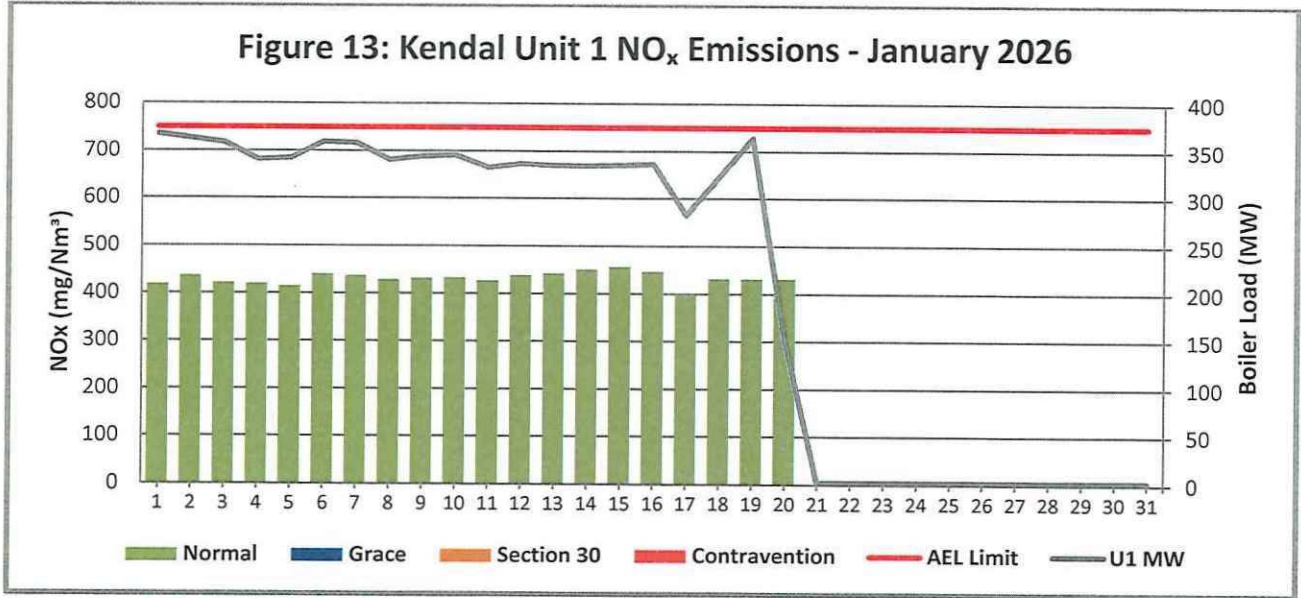


Note: Kendal Power Station unit 5 did not exceed SO_x limit of 3000 mg/Nm³.

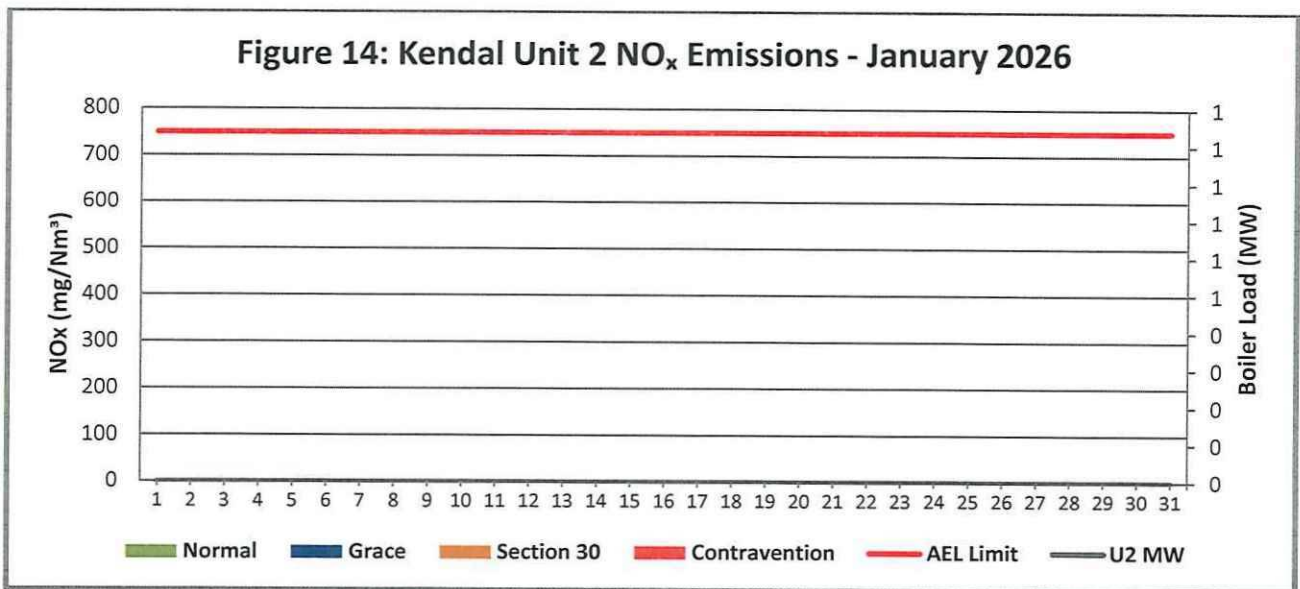


Note: Kendal Power Station unit 6 was off load.

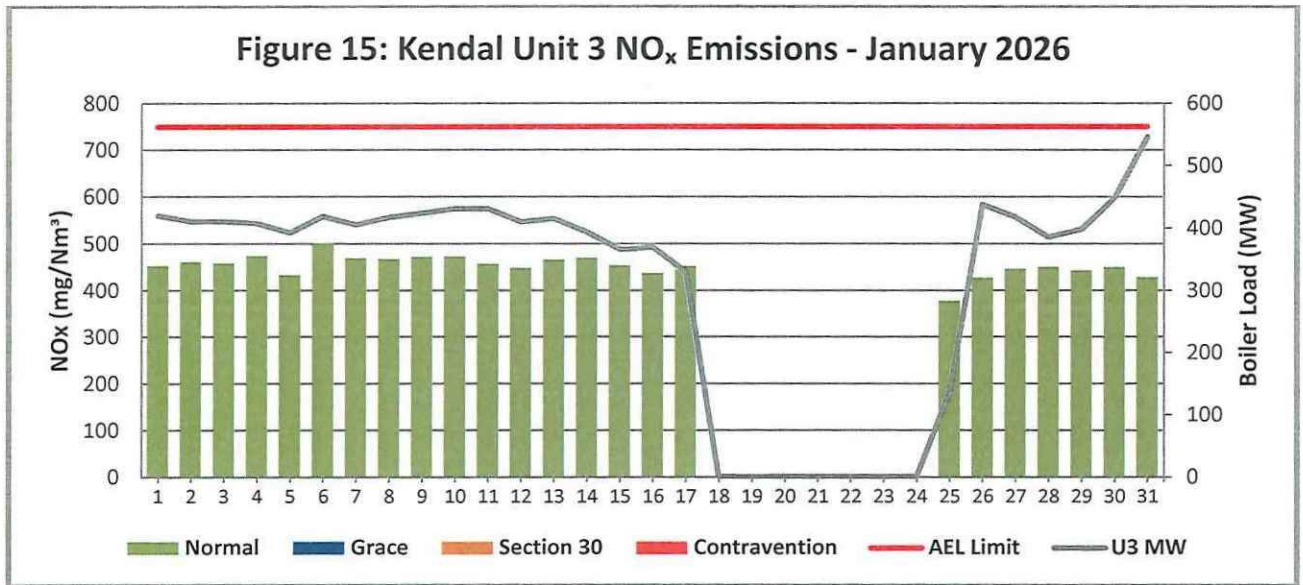
5.3 NOx Daily Averages



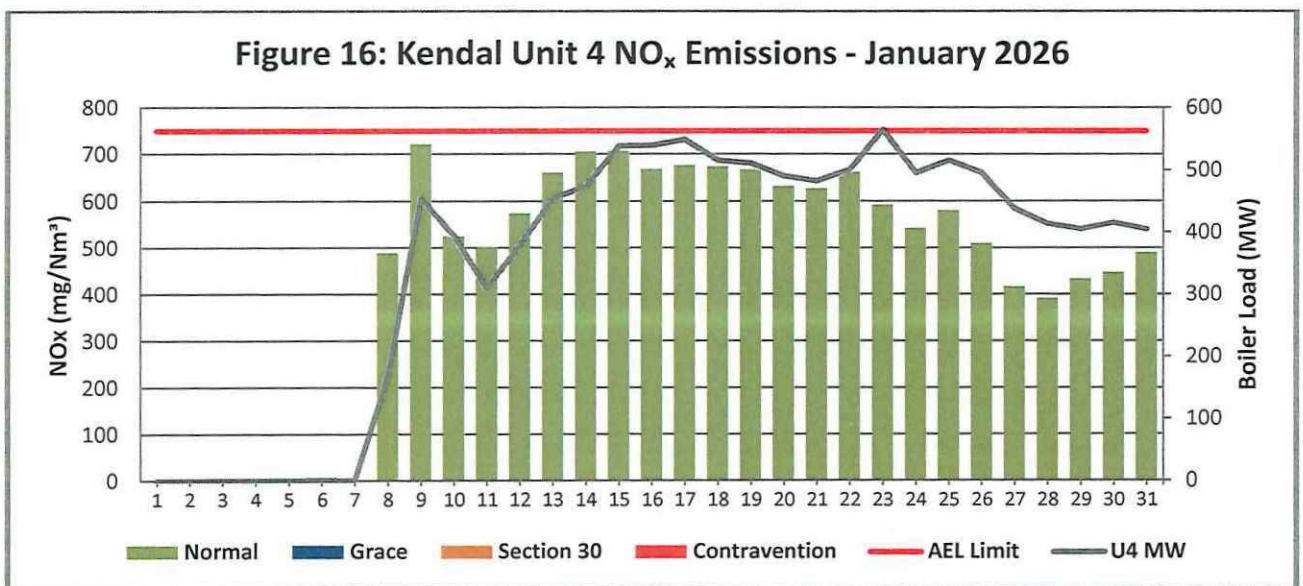
Note: Kendal Power Station unit 1 did not exceed NO_x limit of 750 mg/Nm³.



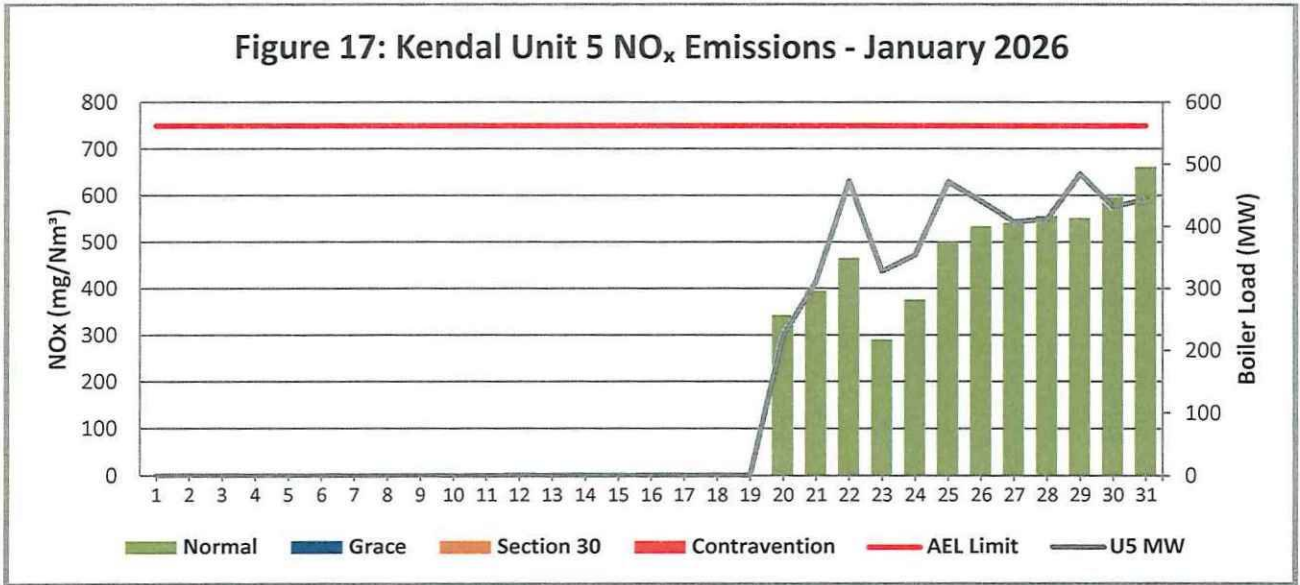
Note: Kendal Power Station unit 2 was off load.



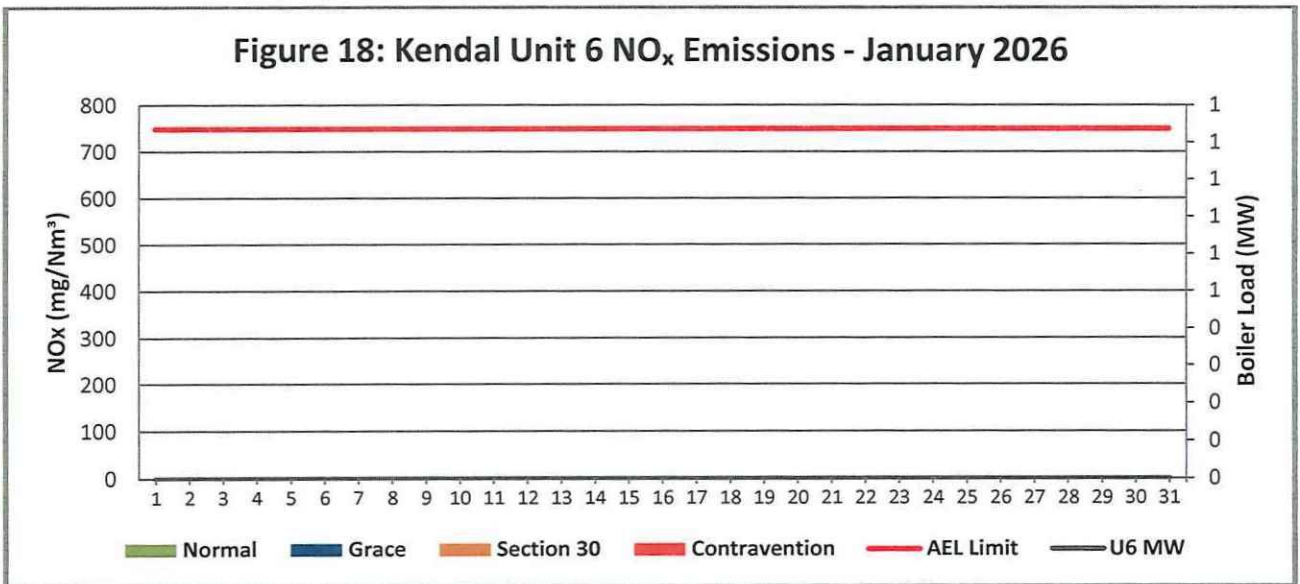
Note: Kendal Power Station unit 3 did not exceed NO_x limit of 750 mg/Nm³.



Note: Kendal Power Station unit 4 did not exceed NO_x limit of 750 mg/Nm³.



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



Note: Kendal Power Station unit 6 was off load.

Table 6-Monthly Tonnages for January 2026

| Associated Unit/Stack | PM (tons) | SO ₂ (tons) | NO _x (tons) |
|-----------------------|-----------|------------------------|------------------------|
| Unit 1 | 8.3 | 1,229 | 335 |
| Unit 2 | Off | Off | Off |
| Unit 3 | 31.5 | 1,696 | 491 |
| Unit 4 | 39.4 | 2,275 | 764 |
| Unit 5 | 17.2 | 1,011 | 292 |
| Unit 6 | Off | Off | Off |
| SUM | 96.46 | 6,212 | 1,883 |

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

| Associated Unit/Stack | PM | SO ₂ | NO ₂ |
|-----------------------|------|-----------------|-----------------|
| Unit 1 | 10.5 | 1,589.2 | 432.5 |
| Unit 3 | Off | Off | Off |
| Unit 2 | 32.5 | 1,578.9 | 453.4 |
| Unit 4 | 34.0 | 1,784.7 | 579.9 |
| Unit 5 | 55.7 | 1,730.4 | 484.8 |
| Unit 6 | Off | Off | Off |

6. Continuous Emissions Monitoring System (CEMS)

Table 8- Periods during which was inoperative/malfunctioning

| Date | CEMS status | Comments |
|--------------|----------------|---|
| January 2026 | Malfunctioning | The station gas monitors for Unit 3 have been reading CO ₂ and 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 | SO ₂ | O ₂ |
|-----------------------|-------|-----------------|-----------------|----------------|
| Unit 1 | 100.0 | 84.4 | 84.4 | 100.0 |
| Unit 2 | Off | Off | Off | Off |
| Unit 3 | 100.0 | 100.0 | 99.2 | 100.0 |
| Unit 4 | 100.0 | 100.0 | 96.1 | 100.0 |
| Unit 5 | 100.0 | 100.0 | 90.3 | 100.0 |
| Unit 6 | Off | Off | Off | Off |

Note: NO_x emissions are measured as NO in PPM. The final NO_x value is expressed as total NO₂ 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. 24hours.

The formula is as follows:

$$= (1 - (\text{count hours above } 99.325\%/24\text{hours})) \times 100$$

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 March 2026 | Valid until March 2026 |
| Unit 5 | Valid until January 2026 (Spot check curve) | Valid until March 2027 |
| Unit 6 | Valid until March 2027 | Valid until September 2027 |

Note: Unit 2 correlation test has not been completed, as the unit has been on outage for electrostatic precipitators (ESP) repairs. The unit is scheduled to return to service on the 20th of February 2026, and the test is planned to commence on the 26th of February 2026.

9. Complaint Register

Table 11-Complaints for the month of January 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 |