

Ms Nompumelelo Simelane
Nkangala District Municipality
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Middleburg
1050

Date:
October 2025

Enquiries: Lesiba Kgobe
Tel: +27 13 699 7817

Ref: *Kusile Power Station AEL (17/4/AEL/MP311/12/01)*

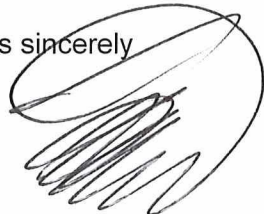
Dear Ms. Simelane

KUSILE POWER STATION'S MONTHLY EMISSIONS REPORT FOR SEPTEMBER 2025

This serves as the monthly report required in terms of Section 7.6 in Kusile Power Station's Atmospheric Emission License: 17/4/AEL/MP311/12/01. The emissions are for the month of September 2025.

Hoping the above will meet your satisfaction.

Yours sincerely



Christopher Nani
GENERAL MANAGER
DATE: 28/10/2025

*KUSILE POWER STATION'S MONTHLY EMISSIONS REPORT FOR SEPTEMBER 2025 -
17/4/AEL/MP311/12/01*

**1. KUSILE POWER STATION MONTHLY EMISSIONS REPORT: Atmospheric Emission
License 17/4/AEL/MP311/12/01**



2. Raw Materials and Products

Raw Materials and Products	Raw Material Type	Units	Max Permitted Consumption Rate	Consumption Rate Sep-2025
	Coal	Tons	1 818 083	959 052
	Fuel Oil	Tons	5 533	1 975
	Limestone	Tons	72 017	21 589
Production Rates	Product / By-Product Name	Units	Max Production Capacity Permitted	Indicative Production Rate Sep-2025
	Energy	GWh	3 321.216	1 790.44
	Ash	Tons	796 300	286 469
	Gypsum	Tons	155 100	38 551
	RE PM	kg/MWh	not specified	0.02
	RE SOx	kg/MWh	not specified	1.09

Note: Maximum energy rate is as per the maximum capacity stated in the AEL: [4 464 MW] x 24 hrs x days in Month/1000 to convert to GWh

3. Energy source characteristics

Fuel Characteristic	Units	Stipulated Range	Monthly Average Content
Coal Sulphur	%	1.3	0.71
Ash in Coal	%	38	29.87
Fuel Oil Sulphur	%	3.5	3.06

4. Emissions Limits (mg/Nm³)

Associated Unit/Stack	PM	SO ₂	NO _x
North Stack	50	1000	750
South Stack	50	1000	750

5. Abatement Technology (%)

Associated Unit/Stack	Technology Type	Efficiency Sep-2025	Technology Type	Efficiency Sep-2025
Unit 1	FFP	99.99%	FGD	99.78%
Unit 2	FFP	99.98%	FGD	99.79%
Unit 3	FFP	99.99%	FGD	99.77%
Unit 4	FFP	99.97%	FGD	99.91%
Unit 5	FFP	99.99%	FGD	99.94%

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

6. Monitoring reliability (%)

Associated Unit/Stack	PM	SO ₂	NO
Unit 1	100.0	100.0	97.7
Unit 2	100.0	100.0	100.0
Unit 3	100.0	100.0	100.0
Unit 4	100.0	99.7	99.7
Unit 5	99.6	99.3	99.6

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

7. Emissions Performance

Table 7.1: Monthly tonnages for the month of September - 2025

Associated Unit/Stack	PM	SO ₂	NO _x
Unit 1	6.0	497	887
Unit 2	7.7	427	617
Unit 3	8.0	637	1027
Unit 4	14.2	233	644
Unit 5	6.5	158	762
SUM	42.52	1 951	3 937

Table 7.2: PM AEL Daily Compliance - September 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Mnth Avg (mg/Nm³)
Unit 1	27	0	0	0	0	3.6
Unit 2	24	0	0	0	0	5.0
Unit 3	30	0	0	0	0	2.9
Unit 4	30	0	0	0	0	6.0
Unit 5	30	0	0	0	0	3.2
SUM	141	0	0	0	0	

Table 7.3: SO₂ AEL Daily & Monthly Compliance - September 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Mnth Avg (mg/Nm³)
Unit 1	29	0	0	0	0	266.8
Unit 2	25	0	0	0	0	232.4
Unit 3	30	0	0	0	0	226.1
Unit 4	30	0	0	0	0	92.2
Unit 5	30	0	0	0	0	72.2
SUM	144	0	0	0	0	

Table 7.4: NO_x AEL Daily Compliance - September 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Mnth Avg (mg/Nm³)
Unit 1	29	0	0	0	0	495.6
Unit 2	25	0	0	0	0	343.6
Unit 3	30	0	0	0	0	375.2
Unit 4	30	0	0	0	0	261.2
Unit 5	30	0	0	0	0	362.0
SUM	144	0	0	0	0	

Table 7.5: 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: Kusile Unit 1 PM Emissions - September 2025

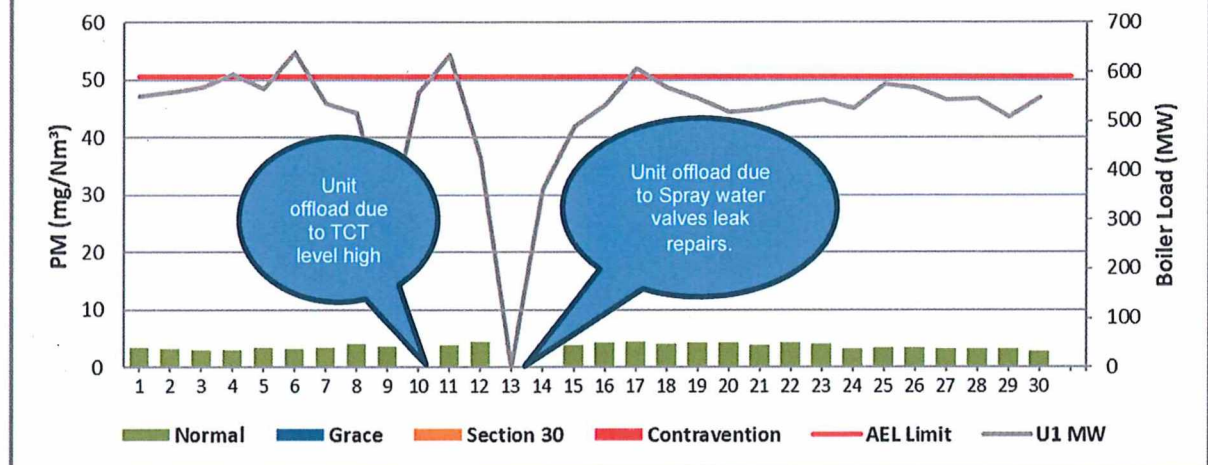


Figure 2: Kusile Unit 2 PM Emissions - September 2025

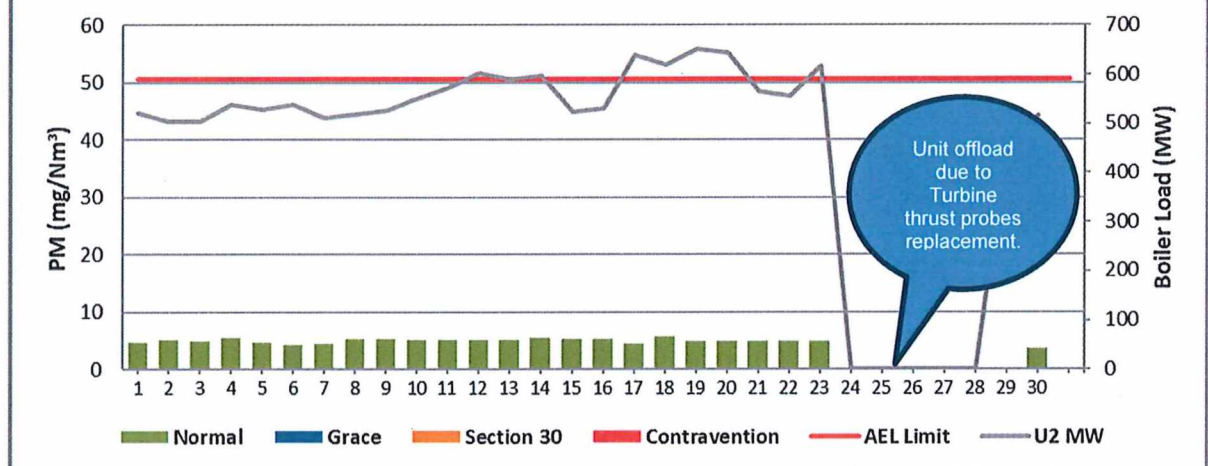
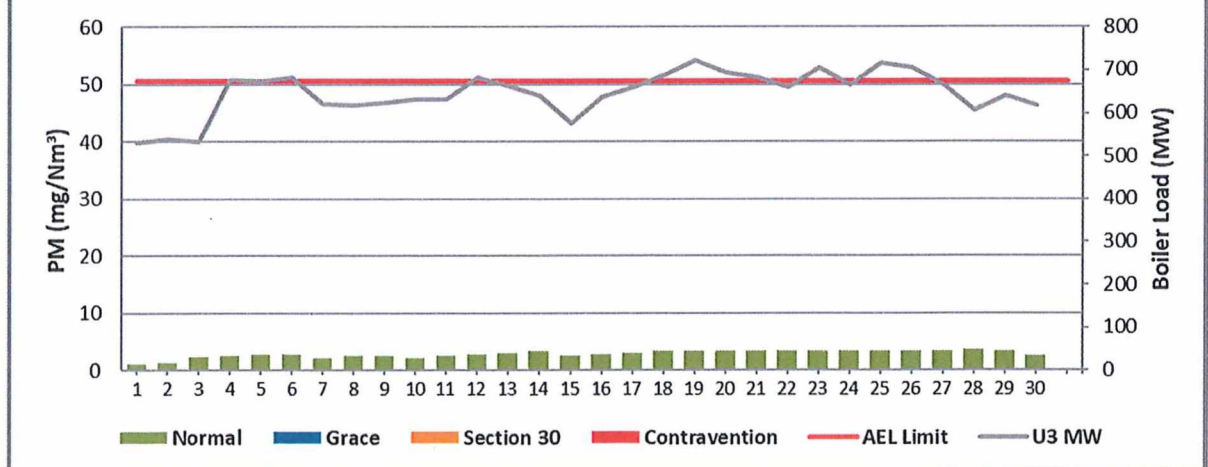
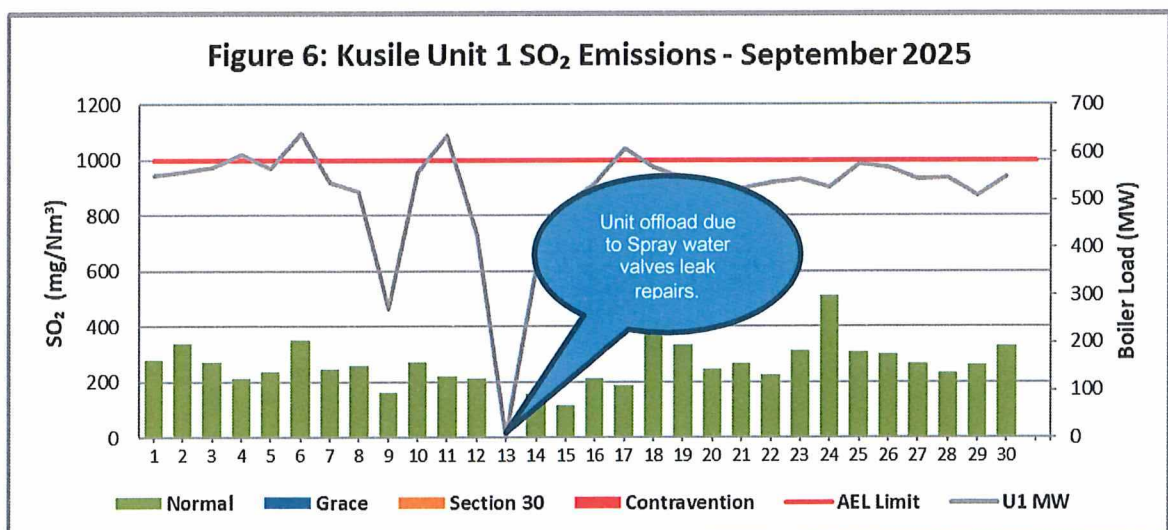
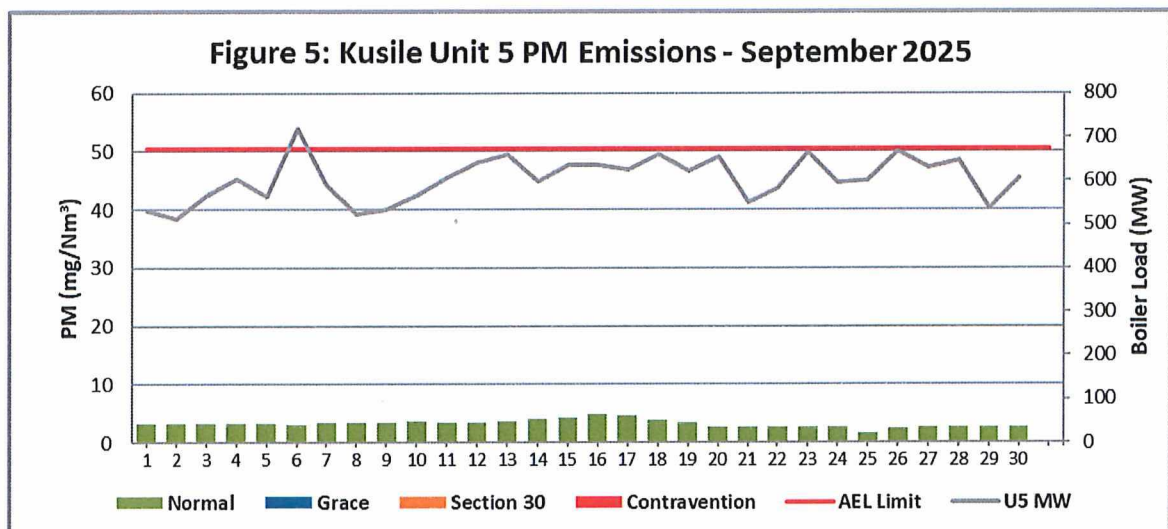
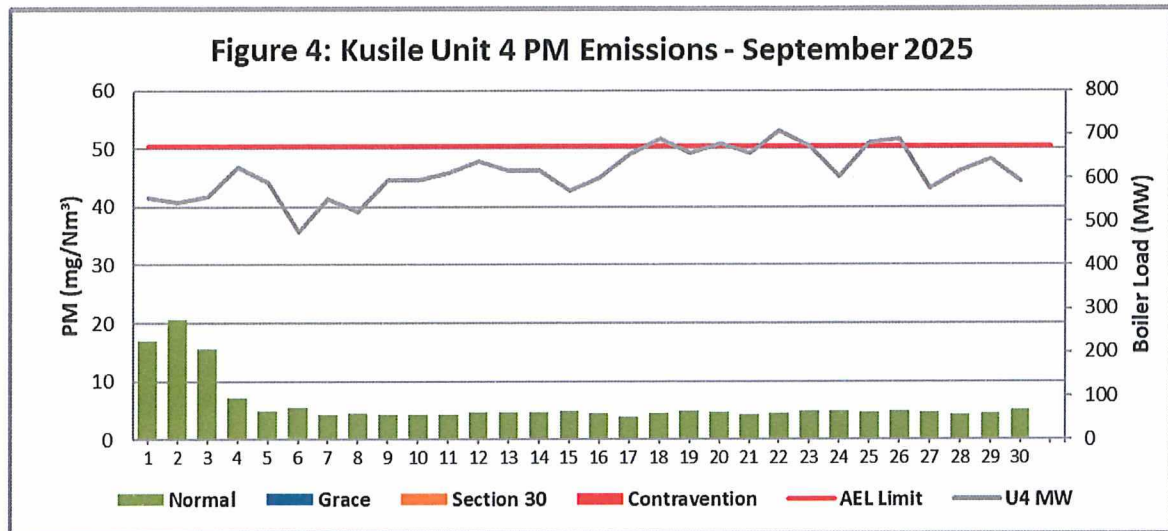


Figure 3: Kusile Unit 3 PM Emissions - September 2025





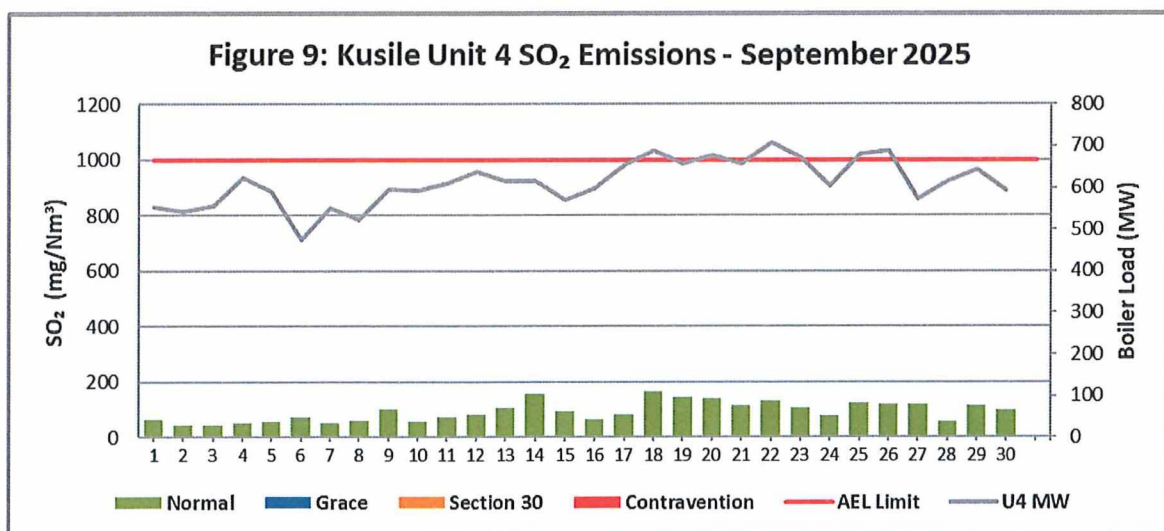
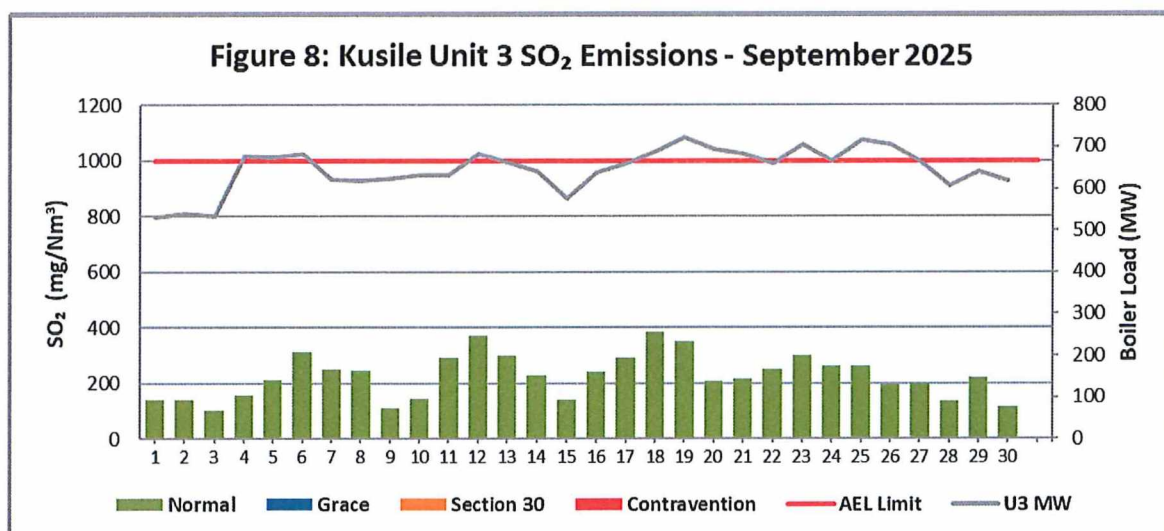
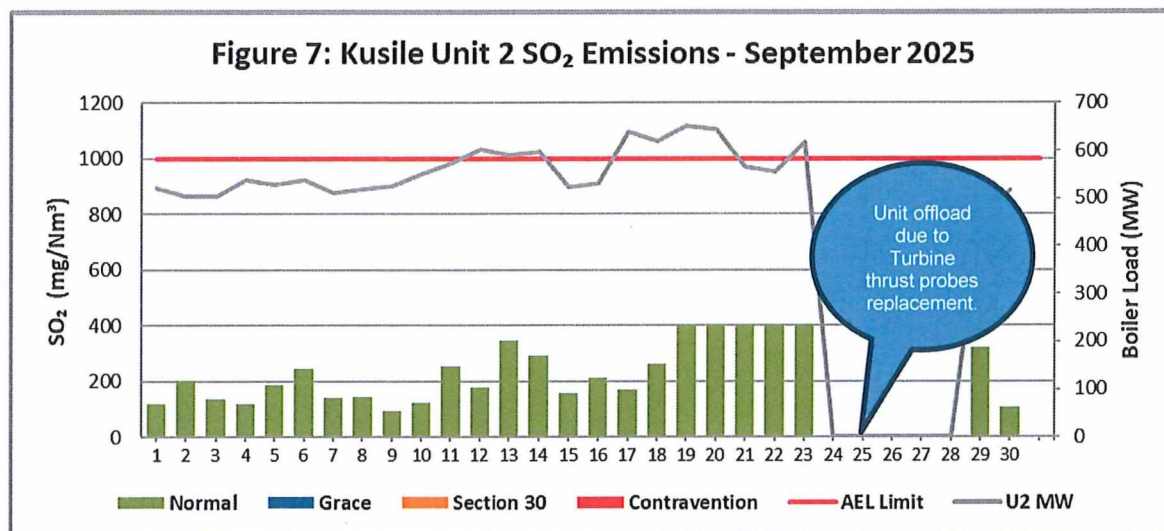


Figure 10: Kusile Unit 5 SO₂ Emissions - September 2025

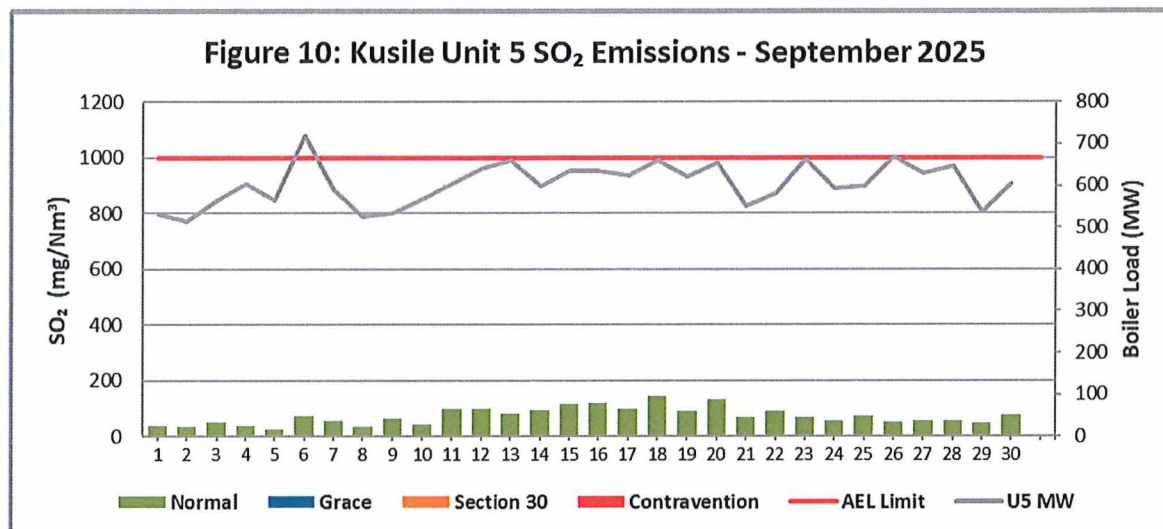


Figure 11: Kusile Unit 1 NO_x Emissions - September 2025

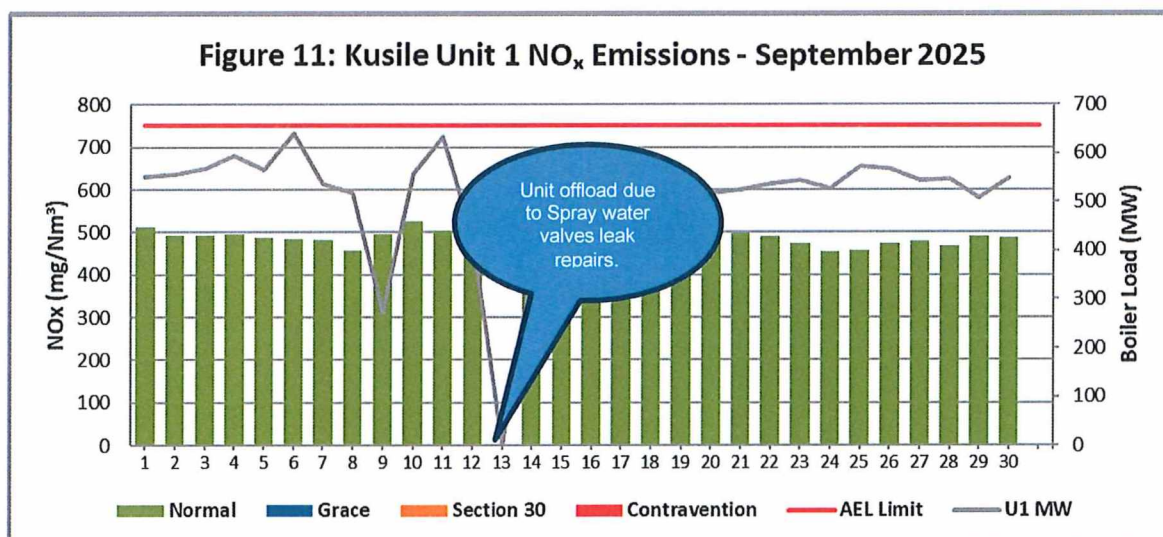
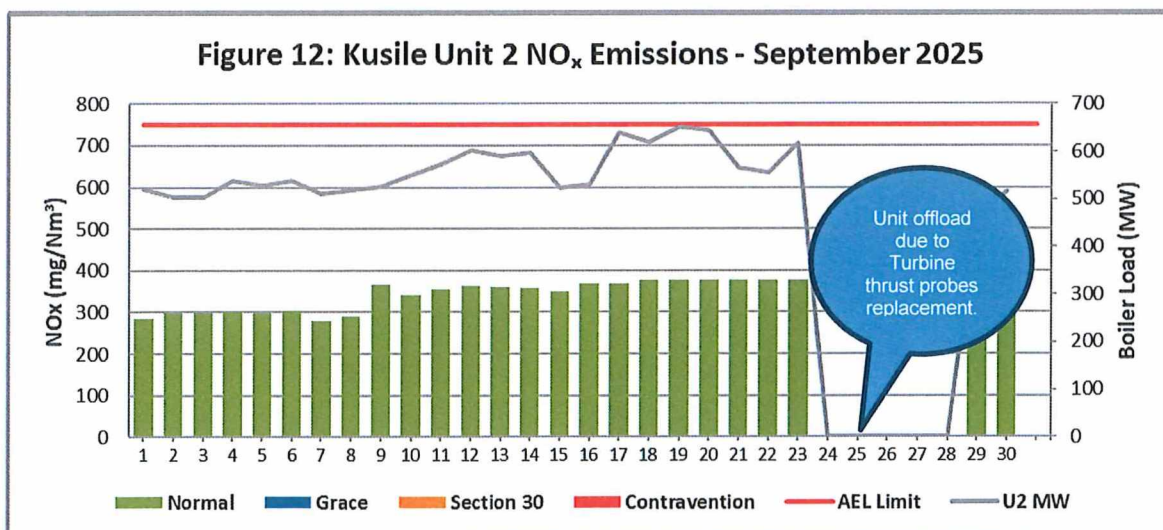
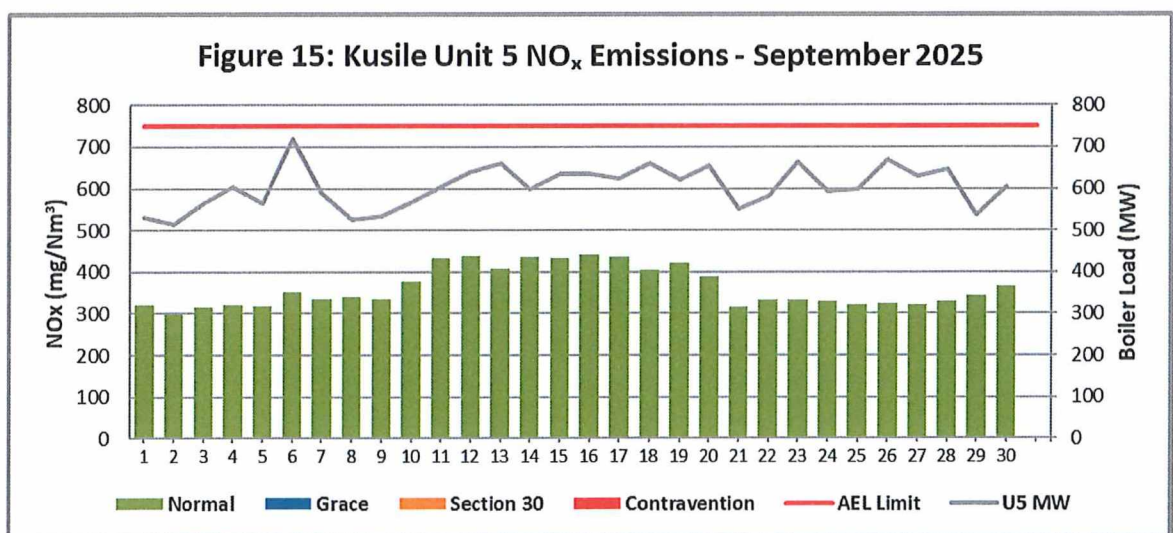
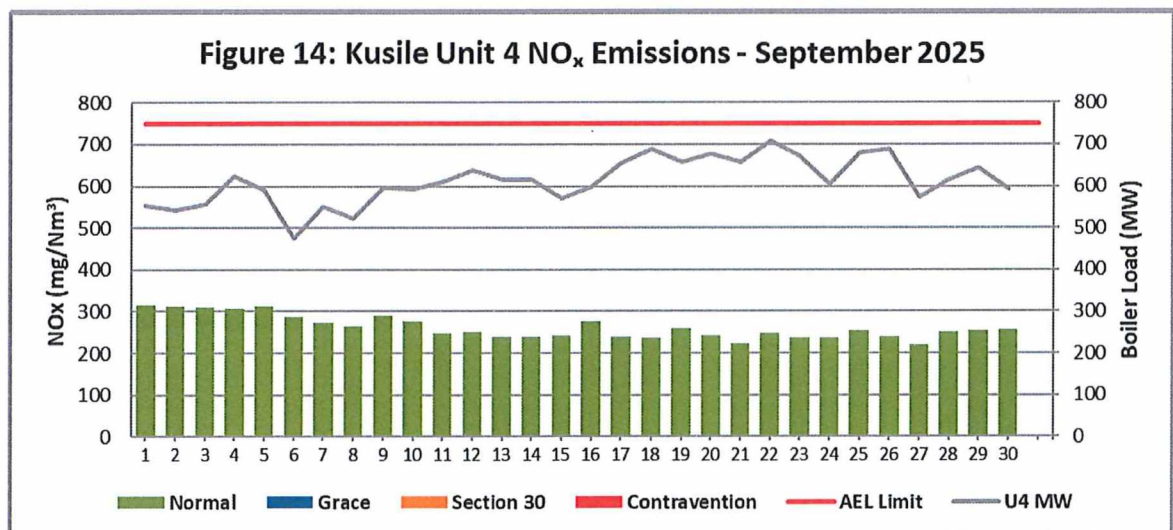
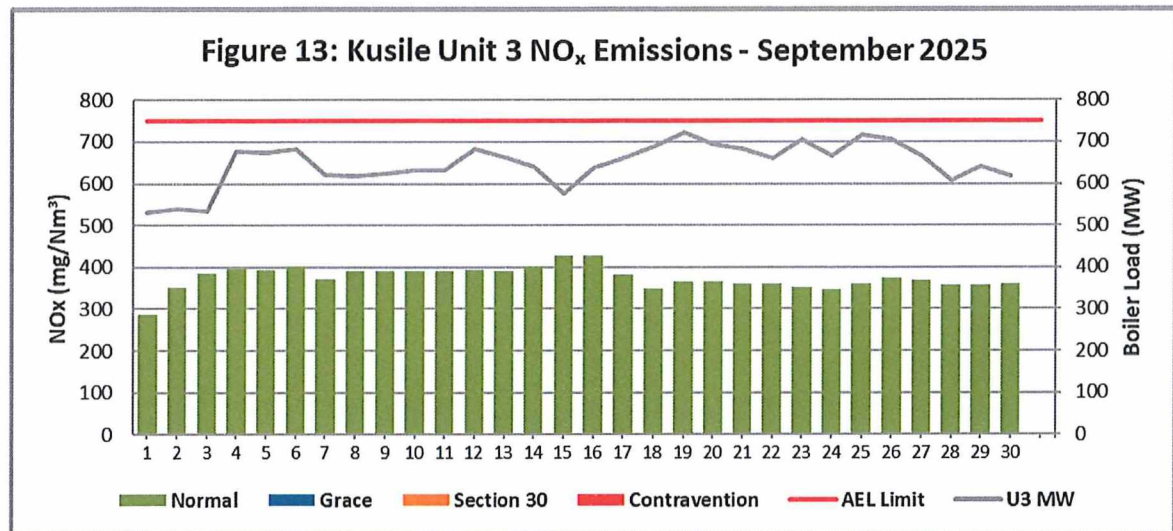


Figure 12: Kusile Unit 2 NO_x Emissions - September 2025





8. Correlation and Parallel test status

Unit 1:

- Unit 1 is operating with valid PM correlation curves.
- Unit 1 is operating with unity curves gaseous emissions. The full gaseous correlation tests was completed on the 13th of August 2025. Awaiting for reports from service provider.

Unit 2:

- Unit 2 is operating with valid correlation curves and parallel factors.

Unit 3

- Unit 3 is operating with valid correlation curves and parallel factors.

Unit 4:

- Unit 4 is operating with valid correlation curves and parallel factors.

Unit 5

- Unit 5 is operating with valid correlation curves and parallel factors.

9. Shut down and Light up information

Event Description		Event 1		Event 2	
Unit 1	Breaker Open (BO)	12:45 pm	2025/09/09	12:40 am	2025/09/12
	Draught Group (DG) Shut Down (SD)	DG did not trip or SD	DG did not trip or SD	DG did not trip or SD	DG did not trip or SD
	BO to DG SD (duration)	n/a	DD:HH:MM	n/a	DD:HH:MM
	Fires in time				
	Synch. to Grid (or BC)	12:05 am	2025/09/10		
	Fires in to BC (duration)		DD:HH:MM		DD:HH:MM
	Emissions below limit from BC (end date)				
	Emissions below limit from BC (duration)		DD:HH:MM		DD:HH:MM

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Event Description		Event 1		Event 2		Event 3	
Unit 2	Breaker Open (BO)	1:20 am	2025/09/18	3:50 am	2025/09/22	10:45 pm	2025/09/23
	Draught Group (DG) Shut Down (SD)	DG did not trip or SD	DG did not trip or SD	DG did not trip or SD	DG did not trip or SD	DG did not trip or SD	DG did not trip or SD
	BO to DG SD (duration)	n/a	DD:HH:MM	n/a	DD:HH:MM	n/a	DD:HH:MM
	Fires in time						
	Synch. to Grid (or BC)						
	Fires in to BC (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM
	Emissions below limit from BC (end date)						
	Emissions below limit from BC (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM

Event Description		Event 1	
Unit 4	Breaker Open (BO)	10:25 am	2025/09/27
	Draught Group (DG) Shut Down (SD)	DG did not trip or SD	DG did not trip or SD
	BO to DG SD (duration)	n/a	DD:HH:MM
	Fires in time		
	Synch. to Grid (or BC)		
	Fires in to BC (duration)		DD:HH:MM
	Emissions below limit from BC (end date)		
	Emissions below limit from BC (duration)		DD:HH:MM

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Event Description		Event 1	
Unit 5	Breaker Open (BO)	7:00 pm	2025/09/24
	Draught Group (DG) Shut Down (SD)	DG did not trip or SD	DG did not trip or SD
	BO to DG SD (duration)	n/a	DD:HH:MM
	Fires in time		
	Synch. to Grid (or BC)		
	Fires in to BC (duration)		DD:HH:MM
	Emissions below limit from BC (end date)		
	Emissions below limit from BC (duration)		DD:HH:MM

10.Complaints

There were no complaints for the month of September 2025

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
No complaints reported for the month of September 2025.				