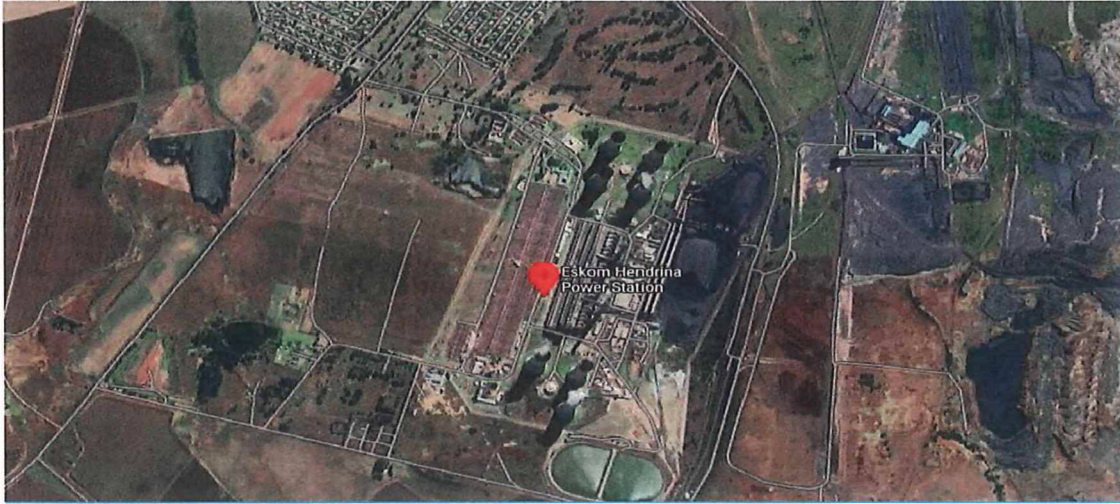


HENDRINA POWER STATION MONTHLY EMISSIONS REPORT

Atmospheric Emission License 17/4/AEL/MP312/11/16



1 RAW MATERIALS AND PRODUCTS

Raw Materials and Products	Raw Material Type	Units	Max. Permitted Consumption Rate	Consumption Rate Apr-2025
	Coal	Tons	820 000	231 067.0
	Fuel Oil	Tons	3 200	1497.91
Production Rates	Product / By-Product Name	Units	Max. Production Capacity Permitted	Production Rate Apr-2025
	Energy	GWh	1440	352.95
	Ash	Tons	290 000	54 161
	RE PM	kg/MWh	not specified	0.153

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristics	Units	Stipulated Range	Monthly Average Content
Sulphur Content	%	0.6 to < 1	0.63
Ash Content	%	20 to < 35	21.73

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SO ₂	NO _x
North	50	3200	1100
South	50	3200	1100

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency Apr-2025
Unit 1	Fabric Filter Plant (FFP)	Unit Off-line
Unit 2	Fabric Filter Plant (FFP)	100%
Unit 3	Fabric Filter Plant (FFP)	Unit Off-line
Unit 4	Fabric Filter Plant (FFP)	Unit Off-line
Unit 5	Fabric Filter Plant (FFP)	100%
Unit 6	Fabric Filter Plant (FFP)	100%
Unit 7	Fabric Filter Plant (FFP)	100%
Unit 8	Fabric Filter Plant (FFP)	Unit Off-line
Unit 9	Fabric Filter Plant (FFP)	Unit Off-line
Unit 10	Fabric Filter Plant (FFP)	100%

Note: Abatement plant does not have bypass mode operation, hence plant 100% Utilised.

5 MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO ₂	NO	O ₂	CO ₂
North	100	58.9	99.7	100.0	96.6
South	99.7	100	99.3	96.4	84.3

Note: NO_x emissions is measured as NO in PPM. Final NO_x value is expressed as total NO₂.

6 EMISSION PERFORMANCE

Table 6.1 Monthly tonnages for the month of April-2025

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
North	13.4	553.4	640.0
South	40.7	1,410.9	743.7
SUM	54.2	1,964.2	1,383.7

Table 6.2: Operating days in compliance to PM AEL Limit - April 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)
North	28	2	0	0	2	15.4
South	16	2	11	0	13	52.1
SUM	44	4	11	0	15	

Table 6.3: Operating days in compliance to SO₂ AEL Limit - April 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm ³)
North	30	0	0	0	0	541.1
South	30	0	0	0	0	1 475.6
SUM	60	0	0	0	0	

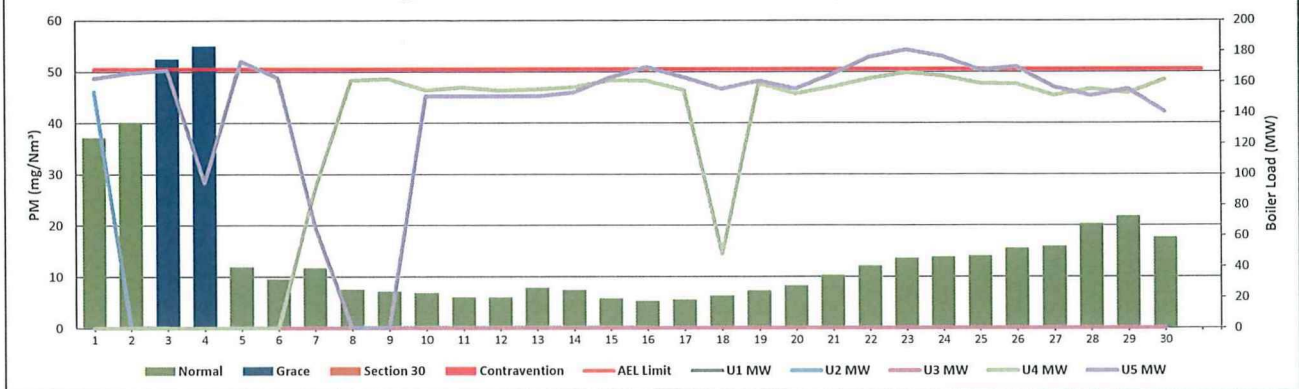
Table 6.4: Operating days in compliance to NO_x AEL Limit - April 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm ³)
North	30	0	0	0	0	586.6
South	27	0	0	3	3	791.1
SUM	57	0	0	3	3	

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: Hendrina North Stack PM Emissions - April 2025



Exceedance outside the 48hr grace period due to upset conditions. Number of hours exceeded reported under General.

Exceedance outside the 48hr grace period due to upset conditions. Number of hours exceeded reported under General.

Figure 2: Hendrina South Stack PM Emissions - April 2025

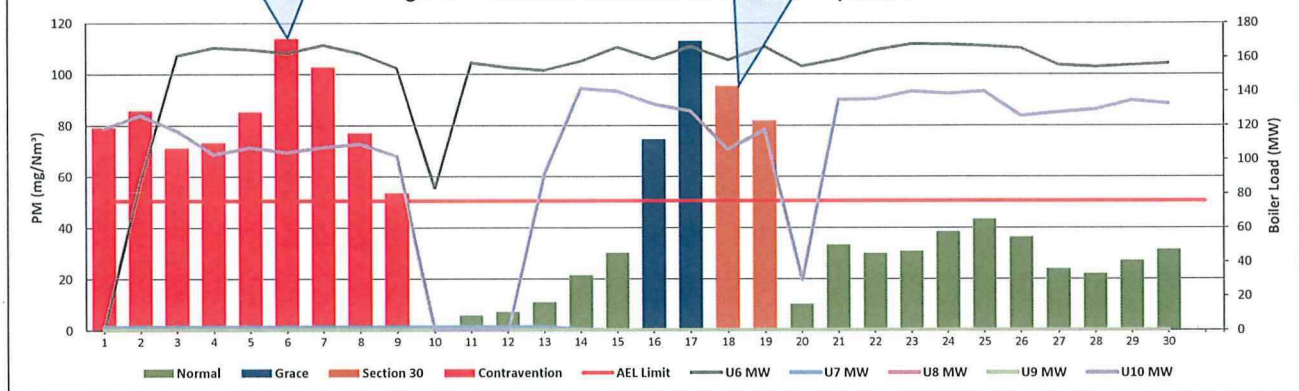


Figure 3: Hendrina North Stack SO₂ Emissions - April 2025

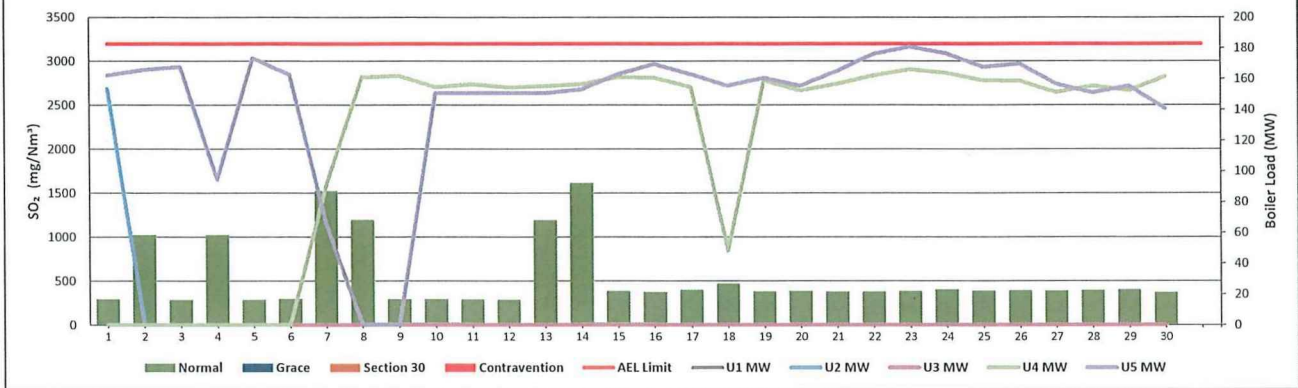


Figure 4: Hendrina South Stack SO₂ Emissions - April 2025

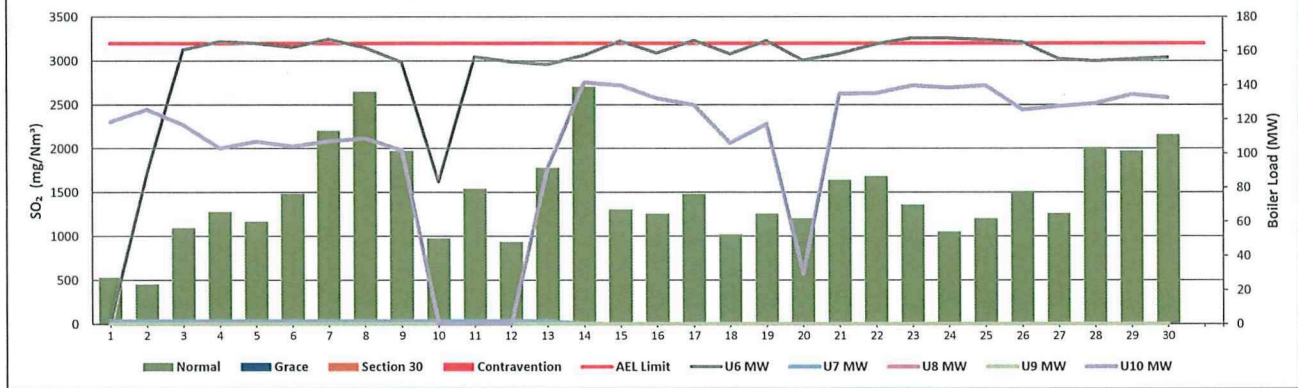


Figure 5: Hendrina North Stack NOx Emissions - April 2025

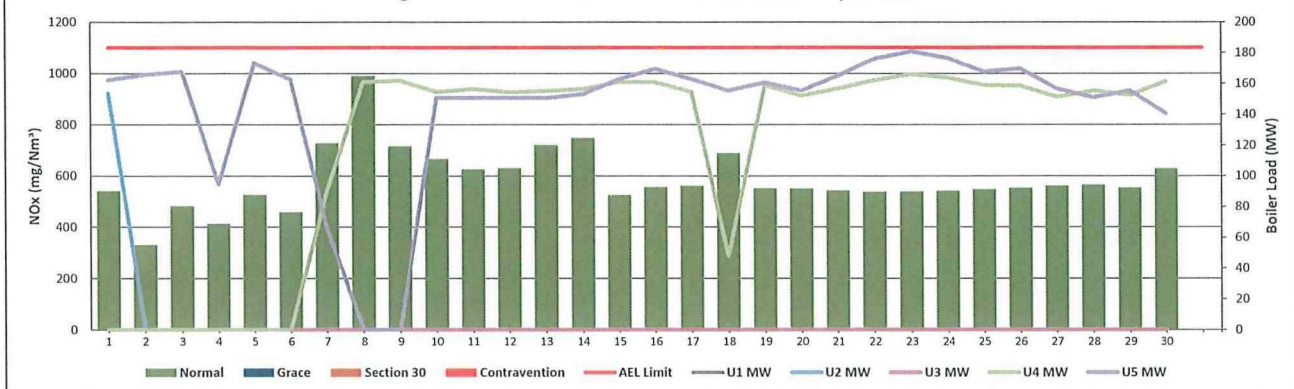
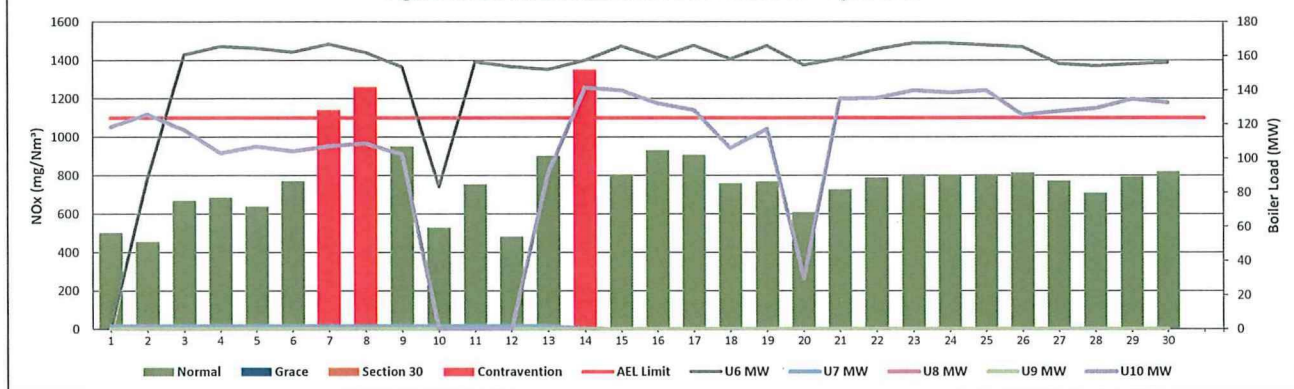


Figure 6: Hendrina South Stack NOx Emissions - April 2025



Gaseous Emission Trends (NOx and SOx) for the North Stack: Surrogate values from QAL2 (RSL 411) have been used due to erroneous data from the Continuous Emission Monitoring System (CEMS).

Spot Check measurements have been performed internally and they confirm the error. The parallel tests reports review has been completed, however it was discovered that during the testing period the monitors were faulty and therefore the tests for the North Stack must be conducted again.

The Station has conducted correlation tests for both stacks via services of a SANAS accredited service provider and the curves have been implemented. The station have implemented the correlation factors. The report will be shared with the Licencing Authority.

7 SHUT DOWN AND LIGHT UP INFORMATION

Table 7 1 PM Start-up information for the month of April-2025

North Stack	Event 1		Event 2		Event 3		Event 4	
Unit No	Unit 2		Unit 2		Unit 4		Unit 4	
Breaker Open (BO)	BO previously	BO previously	11 45 pm	2025/04/01	BO previously	BO previously	7 55 pm	2025/04/17
Draught Group (DG) Shut Down (SD)	n/a	n/a	2 35 pm	2025/04/02	n/a	n/a	4 10 am	2025/04/18
BO to DG SD (duration)	n/a	DD HH MM	00 14 50	DD HH MM	n/a	DD HH MM	00 08 15	DD HH MM
Fires in time					07 02 25	2025/04/07	2025/04/18	2025/04/18
Synch to Grid (or BC)					7 00 pm	2025/04/07	6 50 pm	2025/04/18
Fires in to BC (duration)		DD HH MM		DD HH MM	00 16 35	DD HH MM	00 09 25	DD HH MM
Emissions below limit from BC (end date)					not > limit	not > limit	not > limit	not > limit
Emissions below limit from BC (duration)		DD HH MM		DD HH MM	n/a	DD HH MM	n/a	DD HH MM

North Stack Continued	Event 5		Event 2		Event 3		Event 4	
Unit No	Unit 5		no event		no event		no event	
Breaker Open (BO)	9 45 am	2025/04/04						
Draught Group (DG) Shut Down (SD)	9 55 am	2025/04/04						
BO to DG SD (duration)	00 00 10	DD HH MM		DD HH MM		DD HH MM		DD HH MM
Fires in time	10 25 am	2025/04/04						
Synch to Gnd (or BC)	6 10 pm	2025/04/04						
Fires in to BC (duration)	00 07 45	DD HH MM		DD HH MM		DD HH MM		DD HH MM
Emissions below limit from BC (end date)	not > limit	not > limit						
Emissions below limit from BC (duration)	n/a	DD HH MM		DD HH MM		DD HH MM		DD HH MM

South Stack	Event 1		Event 2		Event 3		Event 4	
Unit No	Unit 6		Unit 6		Unit 10		Unit 10	
Breaker Open (BO)	BO previously	BO previously	9 45 pm	2025/04/09	12 55 pm	2025/04/09	10 45 pm	2025/04/19
Draught Group (DG) Shut Down (SD)	n/a	n/a	10 45 pm	2025/04/09	4 45 pm	2025/04/09	12 35 am	2025/04/20
BO to DG SD (duration)	n/a	DD HH MM	00 01 00	DD HH MM	00 03 50	DD HH MM	00 01 50	DD HH MM
Fires in time	1 55 pm	2025/04/02	2025/04/09	2025/04/09	11 22 35	2025/04/11	2025/04/20	2025/04/20
Synch to Grid (or BC)	5 50 pm	2025/04/02	10 00 am	2025/04/10	4 40 am	2025/04/13	6 30 pm	2025/04/20
Fires in to BC (duration)	00 03 55	DD HH MM	00 10 45	DD HH MM	01 06 05	DD HH MM	00 17 50	DD HH MM
Emissions below limit from BC (end date)	not > limit	not > limit	not > limit	not > limit	not > limit	not > limit	not > limit	not > limit
Emissions below limit from BC (duration)	n/a	DD HH MM	n/a	DD HH MM	n/a	DD HH MM	n/a	DD HH MM

08 Complaints register

Source Code / Name	Root Cause Analysis	Calculation of Impacts / emissions associated with the incident	Dispersion modeling of pollutants where applicable	Date measure will be implemented	Measures implemented to prevent reoccurrence
The Station did not receive complaints related to air quality during the month of April 2025					

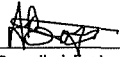
09 General

The station has taken to execute short term and long term mitigations to ensure reliability of the CEMS. The short term action include implementation of the parallel curves. For the long term, the station will engage the Licencing Authority regarding replacement of the CEMS as required by Paragraph b) of General Condition 4.1 of the AEL.

Reporting as per AEL Condition 7.2.8

South Stack Hours exceeded between 01/09/2025 199

South Stack Hours exceeded between 18-19/04/2025 38


 Compiled Environmental Officer
 A. Boja
 28 May 2025
 Date


 Authorised by GM
 T. Lekalakala
 30/05/2025
 Date

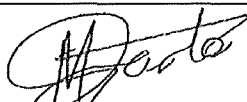
Compiled by Boiler Engineering Department

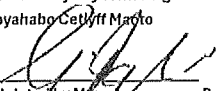
For Nkangala District Municipality


Copies Eskom Environmental Management

Group Technology Engineering

Hendrina Power Station


 Checked by System Engineer Boiler/ FFP
 Moyahabo Cethyff Moyo
 29/05/2025
 Date


 Validated by Manager
 Boiler Engineering Manager
 G. Kgwathe
 2025/05/29
 Date


 Supported by
 Environmental Manager
 L. Ntla
 29/0/2025
 Date

FFP SE/ Environmental Officer

Air Quality Officer

D Herbst

B Mccourt

R Rampiar

E Patel

Engineering Manager

Operating Manager

Maintenance Manager

Unit Production Manager

Boiler Engineering Manager

System Engineer Boiler Engineering

Environmental Officer

C & I Engineering Manager

Production Manager

Environmental Manager

PSM