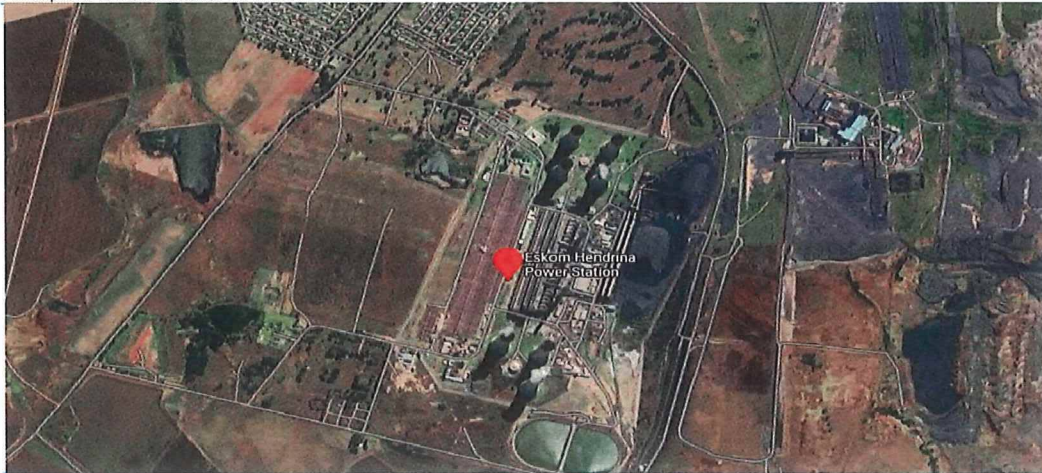


HENDRINA POWER STATION MONTHLY EMISSIONS REPORT

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 Feb-2025 |
|----------------------------|---------------------------|--------|------------------------------------|---------------------------|
| | Coal | Tons | 820 000 | 150 972.0 |
| | Fuel Oil | Tons | 3 200 | 1194.46 |
| Production Rates | Product / By-Product Name | Units | Max. Production Capacity Permitted | Production Rate Feb-2025 |
| | Energy | GWh | 1344 | 234.32 |
| | Ash | Tons | 290 000 | 46 711 |
| | RE PM | kg/MWh | not specified | 0.199 |

2 ENERGY SOURCE CHARACTERISTICS

| Coal Characteristics | Units | Stipulated Range | Monthly Average Content |
|----------------------|-------|------------------|-------------------------|
| Sulphur Content | % | 0.6 to < 1 | 0.59 |
| Ash Content | % | 20 to < 35 | 21.85 |

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 Feb-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 | | | | |
| South | 100 | 100 | 99.6 | 95.4 | 100 |

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

-O₂ monitor faulty.
-SO₂, and NO not available due to monitor defects.

6 EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of February-2025

| Associated Unit/Stack | PM (tons) | SO ₂ (tons) | NOx (tons) |
|-----------------------|-----------|------------------------|------------|
| North | 29.4 | 1 453.3 | 758.5 |
| South | 17.4 | 467.4 | 335.3 |
| SUM | 46.7 | 1 920.6 | 1 093.8 |

-North Stack SO₂, and NOx: Surrogate values measured from QAL 2 Parallel Test Report (RSL411) were used due to monitor defects. Mitigation measures outlined at section 9 of this report: General

Table 6.2: Operating days in compliance to PM_{2.5} AEL Limit - February 2025

| Associated Unit/Stack | Normal | Grace | Section 30 | Contravention | Total Exceedance | Average PM (mg/Nm ³) |
|-----------------------|--------|-------|------------|---------------|------------------|----------------------------------|
| North | 23 | 2 | 2 | 0 | 4 | 37.9 |
| South | 22 | 3 | 0 | 0 | 3 | 38.6 |
| SUM | 45 | 5 | 2 | 0 | 7 | |

-North Stack SO₂: Surrogate values measured from QAL 2 Parallel Test Report (RSL411) were used due to monitor defects. Mitigation measures outlined at section 9 of this report: General

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

| Associated Unit/Stack | Normal | Grace | Section 30 | Contravention | Total Exceedance | Average SO ₂ (mg/Nm ³) |
|-----------------------|--------|-------|------------|---------------|------------------|---|
| North | 28 | 0 | 0 | 0 | 0 | 1 568.6 |
| South | 26 | 0 | 0 | 0 | 0 | 999.4 |
| SUM | 54 | 0 | 0 | 0 | 0 | |

-North Stack NO_x: Surrogate values measured from QAL 2 Parallel Test Report (RSL411) were used due to monitor defects. Mitigation measures outlined at section 9 of this report: General

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

| Associated Unit/Stack | Normal | Grace | Section 30 | Contravention | Total Exceedance | Average NO _x (mg/Nm ³) |
|-----------------------|--------|-------|------------|---------------|------------------|---|
| North | 28 | 0 | 0 | 0 | 0 | 818.7 |
| South | 26 | 0 | 0 | 0 | 0 | 720.5 |
| SUM | 54 | 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 |

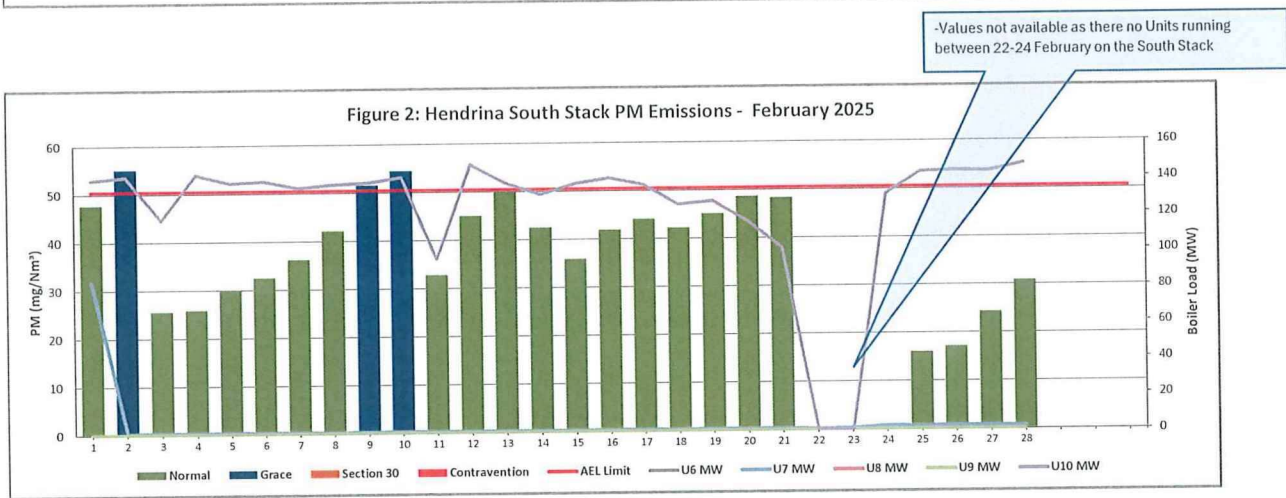
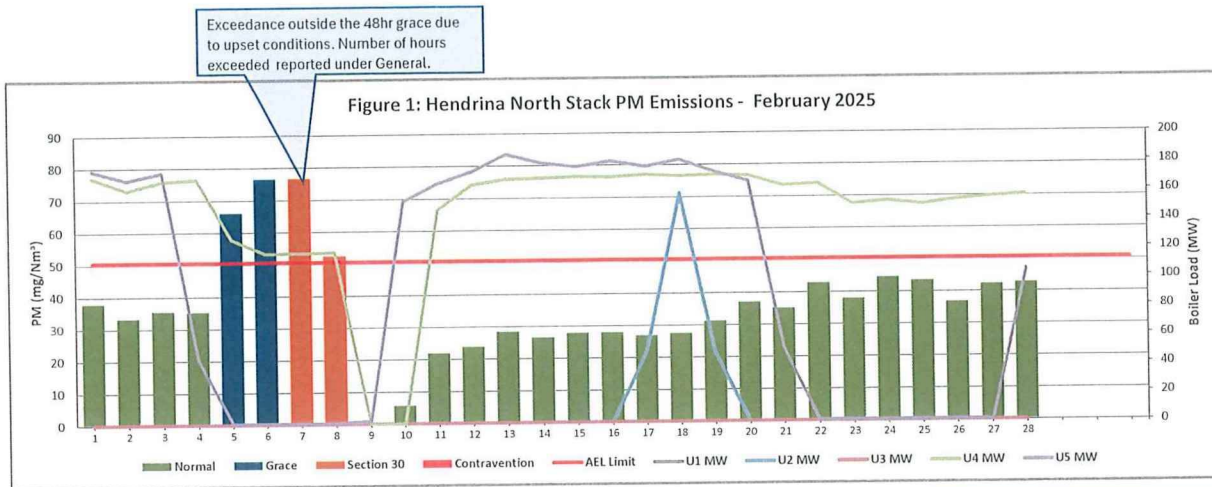


Figure 3: Hendrina North Stack SO₂ Emissions - February 2025

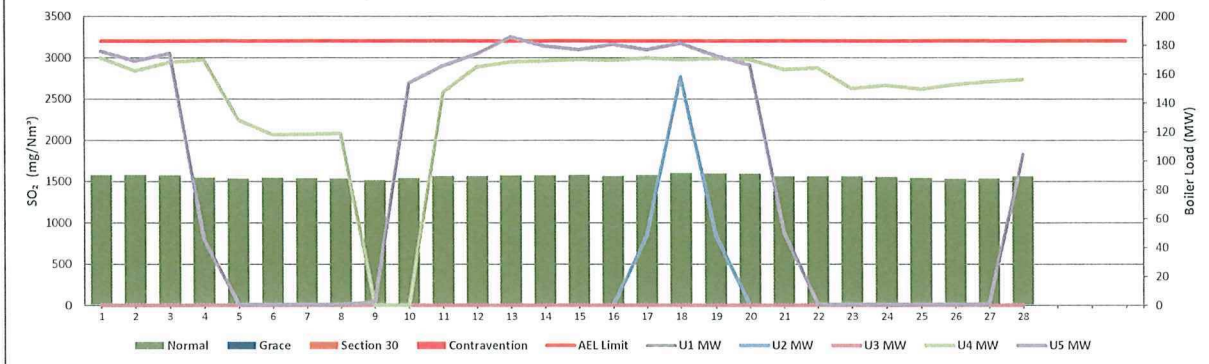


Figure 4: Hendrina South Stack SO₂ Emissions - February 2025

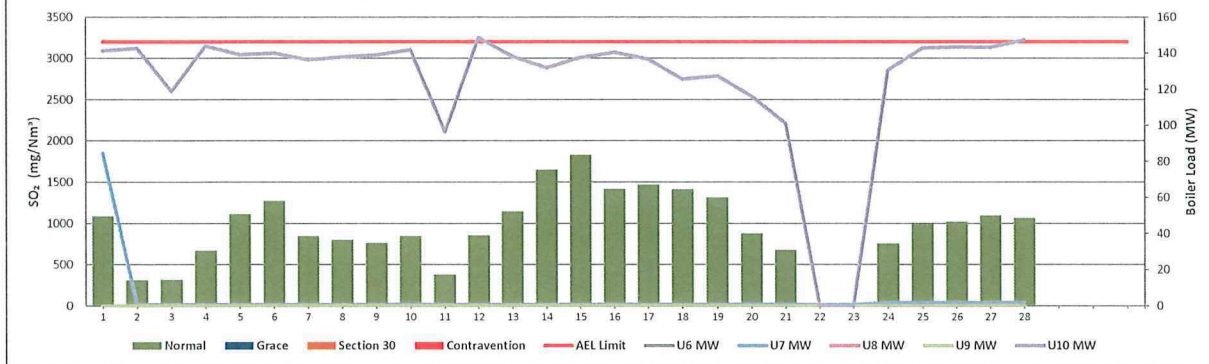


Figure 5: Hendrina North Stack NOx Emissions - February 2025

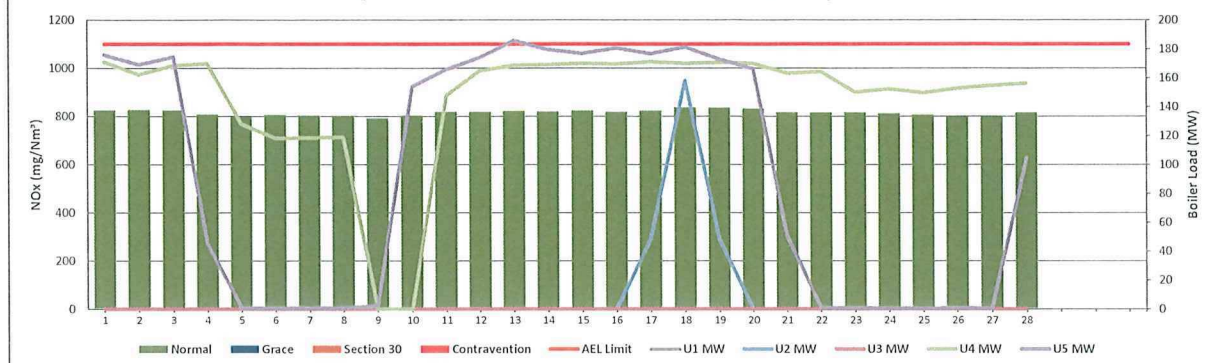
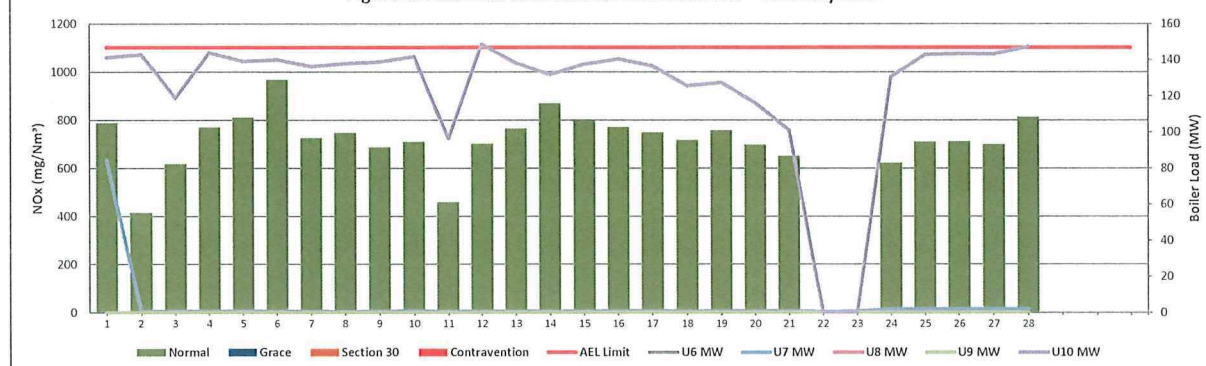


Figure 6: Hendrina South Stack NOx Emissions - February 2025



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 reports are still in review phase. The station shall implement the correlation factors once the review phase of the report is complete and identified comments addressed. 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 February-2025

| North Stack | Event 1 | | Event 2 | | Event 3 | | Event 4 | |
|--|---------------|---------------|----------|------------|-------------|-------------|-------------|-------------|
| Unit No. | Unit 2 | | Unit 2 | | Unit 4 | | Unit 5 | |
| Breaker Open (BO) | BO previously | BO previously | 8:15 am | 2025/02/19 | 9:15 pm | 2025/02/08 | 6:55 am | 2025/02/04 |
| Draught Group (DG) Shut Down (SD) | n/a | n/a | 4:05 pm | 2025/02/19 | 11:15 pm | 2025/02/08 | 2:15 am | 2025/02/05 |
| BO to DG SD (duration) | n/a | DD:HH:MM | 00:07:50 | DD:HH:MM | 00:02:00 | DD:HH:MM | 00:19:20 | DD:HH:MM |
| Fires in time | 11:05 am | 2025/02/16 | | | 10:13:25 | 2025/02/10 | 2025/02/09 | 2025/02/09 |
| Synch. to Grid (or BC) | 1:10 pm | 2025/02/17 | | | 4:00 am | 2025/02/11 | 10:40 pm | 2025/02/09 |
| Fires in to BC (duration) | 01:02:05 | DD:HH:MM | | DD:HH:MM | 00:14:35 | DD:HH:MM | 00:11:55 | DD:HH:MM |
| Emissions below limit from BC (end date) | not > limit | not > limit | | | not > limit | not > limit | not > limit | not > limit |
| Emissions below limit from BC (duration) | n/a | 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) | 7:55 am | 2025/02/21 | | | | | | |
| Draught Group (DG) Shut Down (SD) | 8:15 pm | 2025/02/21 | | | | | | |
| BO to DG SD (duration) | 00:12:20 | DD:HH:MM | | DD:HH:MM | | DD:HH:MM | | DD:HH:MM |
| Fires in time | 7:55 am | 2025/02/27 | | | | | | |
| Synch. to Grid (or BC) | 11:55 pm | 2025/02/27 | | | | | | |
| Fires in to BC (duration) | 00:16:00 | 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 7 | | Unit 10 | | no event | | no event | |
| Breaker Open (BO) | 3:35 pm | 2025/02/01 | 11:55 pm | 2025/02/21 | | | | |
| Draught Group (DG) Shut Down (SD) | 11:25 am | 2025/02/02 | 5:55 am | 2025/02/22 | | | | |
| BO to DG SD (duration) | 00:19:50 | DD:HH:MM | 00:06:00 | DD:HH:MM | | DD:HH:MM | | DD:HH:MM |
| Fires in time | | | 2025/02/23 | 2025/02/23 | | | | |
| Synch. to Grid (or BC) | | | 9:30 am | 2025/02/24 | | | | |
| Fires in to BC (duration) | | DD:HH:MM | 00:10:45 | 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) | | DD:HH:MM | n/a | DD:HH:MM | | DD:HH:MM | | DD:HH:MM |

08 Complaints register:

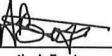
| Source Code / Name | Root Cause Analysis | Calculation of Impacts / emissions associated with the incident | Dispersion modeling of pollutants where applicable | Date measure will be implemented | measures implemented to prevent |
|--|---------------------|---|--|----------------------------------|---------------------------------|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

North Stack Hours exceeded between 07-09/02/2025: 48

 21 March 2025
 Compiled by: Environmental Officer Date
 A. Boja

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

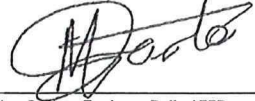


Compiled by: Boiler Engineering Department

For: Nkangala District Municipality

Copies: Eskom Environmental Management

Group Technology Engineering

Hendrina Power Station:

 21/03/2025
 Checked by: System Engineer Boiler/ FFP Date
 Moyahabo Cellyif Maboto
 21/03/2025
 Validated by Manager: Boiler Engineering Manager Date
 G. Kgwatthe
 30/04/2025
 Supported by: Environmental Manager Date
 L. Ntla

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