



Department of Agriculture, Rural Development, Land and Environmental
 Affairs
 The Director: Pollution and Waste Management
 Private Bag X11219
 Nelspruit 1200

Attention:
 Mr. M Mahalela

Nkangala District Municipality
 PO Box 437
 Middelburg 1050

Attention:
 Mr. V Mahlangu

**MATLA POWER STATION
 AIR QUALITY REPORT FOR DECEMBER 2018**

The figures reported in this report are preliminary, and are to be considered for information purposes only. Final annual figures are those reported within 60 days of the independent audit conducted at the end of the financial year (March).

1. PARTICULATE EMISSIONS: MONTHLY TONNAGES.

| Month | BLR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 46.69 | Off | Off | Off | Off | Off | Off | Off | 95.56 | 41.79 | 83.20 | 106.92 | 132.26 |
| 2 | 165.43 | 57.98 | 60.80 | 28.57 | 44.25 | 74.24 | 74.20 | 69.81 | 61.67 | 77.79 | 103.67 | 212.36 | 111.82 |
| 3 | 172.35 | 55.05 | 62.50 | 29.56 | 35.97 | 86.14 | 79.36 | 173.07 | 71.28 | 60.47 | Off | 111.82 | 111.82 |
| 4 | 188.43 | 166.34 | 132.22 | 87.07 | 123.63 | 67.06 | 56.07 | 45.66 | 106.44 | 131.91 | 176.72 | 570.32 | 570.32 |
| 5 | 82.97 | 68.06 | 97.63 | 61.14 | 83.25 | 90.26 | 45.00 | 73.61 | 43.41 | 63.55 | 102.66 | 95.04 | 95.04 |
| 6 | 53.43 | 62.15 | 50.91 | 52.66 | 44.17 | 47.93 | 46.24 | 74.64 | 15.76 | 96.96 | 117.45 | 197.95 | 197.95 |
| Station | 709.30 | 409.57 | 404.02 | 258.99 | 331.28 | 365.62 | 300.89 | 532.34 | 340.36 | 513.89 | 607.42 | 1319.8 | 1319.8 |
| GWHSO | 1783.6 | 1562.9 | 1733.7 | 1594.2 | 1627.7 | 1491.5 | 1398.1 | 1368.0 | 1550.7 | 1890.6 | 1807.9 | 1733.2 | 1733.2 |

2. COAL AND LOAD FACTOR:

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Load Factor | 82.96 | 88.34 | 86.45 | 78.39 | 89.58 | 76.24 | 72.31 | 71.04 | 78.96 | 82.42 | 88.58 | 78.26 |
| Ash Content | 27.15 | 23.3 | 26.41 | 25.3 | 27.70 | 27.92 | 27.6 | 30.93 | 31.33 | 25.43 | 24.35 | 31.6 |
| Sulphur Content | 1.0 | 0.95 | 0.90 | 0.99 | 1.2 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Total Moisture | 9.43 | 9.60 | 9.57 | 9.21 | 9.7 | 9.47 | 9.43 | 7.91 | 8.03 | 6.69 | 7.81 | 9.00 |

3. GASEOUS EMISSIONS:

CO₂ emissions: kilotons emitted per month, calculated from coal analysis and emission factors.

| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| Units 1-3 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 |
| Unit 4 | | | | | | | | | | | | |
| Unit 5 | | | | | | | | | | | | |
| Unit 6 | | | | | | | | | | | | |
| All Units | | | | | | | | | | | | |

SO₂ emissions: kilotons emitted per month, calculated from coal analysis and emission factors.

| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Units 1-3 | 8.25 | 6.95 | 7.84 | 6.62 | 7.68 | 6.18 | 6.34 | 6.02 | 8.74 | 9.30 | 6.75 | 6.65 |
| Unit 4 | 2.89 | 2.85 | 3.16 | 3.29 | 3.94 | 3.18 | 3.22 | 2.07 | 2.81 | 2.95 | 3.19 | 2.87 |
| Unit 5 | 3.31 | 3.02 | 3.51 | 3.07 | 3.96 | 2.77 | 1.67 | 2.77 | 2.82 | 3.33 | 3.27 | 3.48 |
| Unit 6 | 3.70 | 2.46 | 3.13 | 3.15 | 3.93 | 2.99 | 2.89 | 2.75 | 1.03 | 3.74 | 3.50 | 3.48 |
| All Units | 18.15 | 15.28 | 17.64 | 16.12 | 19.50 | 15.12 | 14.13 | 13.61 | 15.40 | 19.32 | 16.71 | 16.48 |

NO_x emissions: kilotons emitted per month, calculated from coal analysis and emission factors.

| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| Units 1-3 | 2.59 | 2.18 | 2.46 | 2.07 | 2.01 | 1.94 | 1.99 | 1.88 | 2.74 | 2.91 | 2.11 | 2.08 |
| Unit 4 | 0.91 | 0.89 | 0.99 | 1.03 | 1.03 | 1.00 | 1.01 | 0.65 | 0.88 | 0.92 | 1.00 | 0.90 |
| Unit 5 | 1.04 | 0.95 | 1.10 | 0.96 | 1.03 | 0.87 | 0.52 | 0.87 | 0.88 | 1.04 | 1.02 | 1.09 |
| Unit 6 | 1.16 | 0.77 | 0.98 | 0.99 | 10.3 | 0.94 | 0.91 | 0.86 | 0.32 | 1.17 | 1.10 | 1.09 |
| All Units | 5.69 | 4.79 | 5.53 | 5.05 | 5.09 | 4.74 | 4.43 | 4.26 | 4.82 | 6.05 | 5.24 | 5.16 |

| | | | | | | | | | | | | |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| Unit 6 | 1353 | 1406 | 1425 | 1540 | 1620 | 1529 | 1554 | 1572 | 1361 | 1552 | 1597 | 1544 |
| Unit 5 | 1751 | 1827 | 1856 | 1850 | 1797 | 1656 | 1533 | 1658 | 2033 | 1995 | 2148 | 1930 |
| Unit 4 | 1476 | 1350 | 1626 | 1628 | 1685 | 1590 | 1761 | 1614 | 1791 | 1697 | 1658 | 1625 |
| Units 1-3 | 1883 | 1587 | 2246 | 2036 | 2153 | 2203 | 2116 | 2129 | 2096 | 2232 | 1919 | 1922 |
| 4000 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 |
| Limit | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |

SO₂ emissions (mg/Nm³): Average concentration per month (at 273 K, 101.3 kPa and 10% O₂), measured with the continuous emission monitoring system. NOTE: These are unverified values for information purposes only

| | | | | | | | | | | | | |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| Unit 6 | | | | | | | | | | | | |
| Unit 5 | | | | | | | | | | | | |
| Unit 4 | | | | | | | | | | | | |
| Units 1-3 | | | | | | | | | | | | |
| | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 |
| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |

CO₂ emissions (mg/Nm³): Average concentration per month (at 273 K, 101.3 kPa and 10% O₂), measured with the continuous emission monitoring system. NOTE: These are unverified values for information purposes only

| | | | | | | | | | | | | |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| All Units | 6.46 | 6.15 | 6.95 | 6.15 | 5.43 | 5.57 | 4.77 | 4.40 | 5.52 | 7.62 | 7.28 | 6.36 |
| Unit 6 | 0.79 | 0.55 | 0.63 | 1.25 | 1.10 | 1.19 | 1.11 | 0.89 | 0.33 | 1.27 | 1.45 | 1.29 |
| Unit 5 | 1.43 | 1.32 | 1.28 | 1.06 | 1.02 | 0.90 | 0.37 | 0.70 | 0.91 | 0.95 | 1.19 | 1.13 |
| Unit 4 | 0.98 | 1.30 | 1.26 | 1.01 | 0.84 | 0.87 | 0.81 | 0.53 | 0.79 | 1.00 | 1.53 | 1.36 |
| Units 1-3 | 3.26 | 2.98 | 3.78 | 2.82 | 2.47 | 2.61 | 2.48 | 2.27 | 3.48 | 4.40 | 3.12 | 2.58 |
| | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 |
| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |

NO_x emissions: kilotons emitted per month, measured with the continuous emission monitoring system. NOTE: These are unverified values for information purposes only.

| | | | | | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| All Units | 12.74 | 10.96 | 14.55 | 14.26 | 13.83 | 13.10 | 11.79 | 11.85 | 14.06 | 17.41 | 16.11 | 14.37 |
| Unit 6 | 1.44 | 1.03 | 1.22 | 2.73 | 2.65 | 2.40 | 2.38 | 2.18 | 0.80 | 2.81 | 3.32 | 3.01 |
| Unit 5 | 2.54 | 2.57 | 2.74 | 2.61 | 2.58 | 2.12 | 1.13 | 2.26 | 2.58 | 2.77 | 3.31 | 3.01 |
| Unit 4 | 1.61 | 1.81 | 2.28 | 2.18 | 1.96 | 1.86 | 1.84 | 1.15 | 1.83 | 2.13 | 2.94 | 2.55 |
| Units 1-3 | 7.15 | 5.55 | 8.31 | 6.73 | 6.64 | 6.72 | 6.43 | 6.26 | 8.84 | 9.70 | 6.54 | 5.80 |
| | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 |
| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |

SO₂ emissions: kilotons emitted per month, measured with the continuous emission monitoring system. NOTE: These are unverified values for information purposes only.

| | | | | | | | | | | | | |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| All Units | | | | | | | | | | | | |
| Unit 6 | | | | | | | | | | | | |
| Unit 5 | | | | | | | | | | | | |
| Unit 4 | | | | | | | | | | | | |
| Units 1-3 | | | | | | | | | | | | |
| | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 |
| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |

CO₂ emissions: kilotons emitted per month, measured with the continuous emission monitoring system. NOTE: These are unverified values for information purposes only.

SO₂ daily average emissions: AEL limit exceedances

| Limit | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| 3500 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 |
| Units 1-3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unit 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unit 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unit 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NO_x emissions (mg/Nm³): Average concentration per month (at 273 K, 101.3 kPa and 10% O₂), measured with the continuous emission monitoring system. NOTE: These are unverified values for information purposes only

| Limit | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1700 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 |
| Units 1-3 | 858 | 851 | 1017 | 852 | 797 | 853 | 806 | 770 | 823 | 1028 | 913 | 855 |
| Unit 4 | 896 | 970 | 872 | 752 | 713 | 735 | 773 | 745 | 772 | 799 | 859 | 868 |
| Unit 5 | 982 | 936 | 859 | 753 | 708 | 703 | 493 | 519 | 719 | 675 | 769 | 720 |
| Unit 6 | 751 | 751 | 740 | 711 | 674 | 757 | 717 | 646 | 564 | 702 | 698 | 660 |

NO_x daily average emissions: AEL limit exceedances

| Limit | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1200 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 | 2018 |
| Units 1-3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unit 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unit 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unit 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

4. PARTICULATE EMISSION PERFORMANCE

| UNIT | MONTH AVERAGE EMISSIONS | AEL LIMIT(DAILY AVERAGE) | HIGHEST DAILY AVERAGE |
|----------|-------------------------|--------------------------|-----------------------|
| 1, 2 & 3 | 144.07 | 200 | 240.4 |
| 4 | 377.45 | 200 | 652.9 |
| 5 | 58.86 | 100 | 89.1 |
| 6 | 96.54 | 100 | 257.4 |
| Station | 169.23 | | |
| YTD | 67.85 | | |

ABATEMENT APPARATUS AVAILABILITY

| Unit | 1 | 2 | 3 | 4 | 5 | 6 | Station |
|-----------------------------------|-------|-------|-------|-------|--------|--------|---------|
| Precipitator efficiency | 99.70 | 99.50 | 99.68 | 98.32 | 99.78 | 99.55 | 99.42 |
| Precipitator availability | 99.99 | 99.66 | 99.26 | 94.91 | 97.35 | 96.73 | 98.23 |
| SO ₃ plant utilisation | 98.23 | 99.79 | 99.03 | 98.93 | 100.00 | 100.00 | 99.33 |

ATMOSPHERIC EMISSION LICENSE LIMIT EXCEEDED

| UNIT | 1, 2 & 3 | 4 | 25 | 3 | 0 | 1 | Days |
|---|----------|----|----|---|---|---|------|
| AEL LIMIT EXCEEDED (TOTAL) | 4 | 4 | 3 | 3 | 0 | 1 | Days |
| AEL LIMIT EXCEEDED (LIGHT-UP/SHUT DOWN) | 3 | 3 | 3 | 3 | 0 | 1 | Days |
| AEL LIMIT EXCEEDED (UPSET CONDITIONS) | 0 | 0 | 1 | 1 | 0 | 0 | Days |
| AEL LIMIT EXCEEDED (MAINTENANCE) | 0 | 0 | 0 | 0 | 0 | 0 | Days |
| AEL LIMIT EXCEEDED (SECTION 30 / CONTRAVENTION) | 0 | 0 | 0 | 0 | 0 | 0 | Days |
| Station | 67 | 39 | 10 | 6 | 3 | 1 | 6 |
| YTD | 67 | 39 | 10 | 6 | 3 | 1 | 32 |

5. DISCUSSION

Unit 1:

The boiler tripped on the 13th December 2018 at 10:27 on low drum level protection when the feedwater tank level measurement malfunctioned. The unit remained off load for a planned outage. The unit returned to service on the 24th December 2018 at 05:07. The opportunity was utilised to carry out precipitator repairs.

Higher than normal particulate emissions were reported for the south stack for most of the month. The main reason for this is deemed to be a deterioration in coal quality, resulting in higher than normal ash content and changes in dust densities which caused increased dust hopper levels.

Unit 2:

The unit tripped on the 30th November 2018 at 04:43 when the boiler low drum level protection operated. The unit remained off load for reheater drain line repairs. The unit returned to service on the 3rd December 2018 at 12:39. The SO₃ flue gas cleaning plant sulphur flow failed on the 19th December 2018 at 12:22. The flow was restored at 13:49. The unit tripped on the 25th December 2018 at 12:50 on condenser overpressure protection. The unit returned to service at 17:07 on the same day.

Unit 3:

The unit was taken off load on the 20th October 2018 at 21:58. The unit remained off load for the month of November 2018. The unit returned to service on the 12th December 2018 at 04:19. The SO₃ flue gas conditioning plant heater burnt out during the commissioning of the plant. This caused a delay in placing the SO₃ plant in service resulting in elevated particulate emissions. The unit tripped on the 16th December 2018 at 00:12 on boiler flame failure protection. The unit returned to service on the 17th December 2018 at 03:41. The unit was taken off load on the 18th December 2018 at 13:54. The unit returned to service on the 20th December 2019 at 03:23. The unit tripped on the 28th December 2018 at 20:06 when the boiler level protection malfunctioned. The unit remained off load for turbine barring gear repairs. The opportunity was utilised to carry out minor precipitator repairs.

The dust handling plant proved to be very sensitive to changes in dust quality in terms of density and particle size and thus experienced frequent line blockages. The dust changed during a period when very poor quality coal was delivered to the power station. The above field failures resulted in exceedance of the AEL limit as from the 3rd December 2018. Maintenance managed to place some of the fields back in service periodically which assisted in reducing the emissions. The unit load was reduced when loading was available. In addition, the unit experienced a few SO₃ plant failures during the month adding to the emissions.

The unit tripped on the 23rd December 2018 at 16:31 when a routing trip test failed. The unit returned to service on the 24th December 2018 at 05:07. The unit was taken off load on the 30th December 2018 at 22:13 for precipitator repairs.

The unit experienced a few precipitator field failures due to full dust hoppers during the month. Higher than normal particulate emissions were recorded due to the poor quality coal delivered to the station. The SO₃ flue gas conditioning plant tripped a few times during the month further elevating the particulate emissions.

The unit experienced a large number of precipitator field failures due to full dust hoppers during the first few days of the month. The AEL limit was exceeded as from the 1st December 2018. The dust emission reduced as from the 12th December 2018.

The SO₃ common plant availability was high for the month of December 2018. The gas emissions measured by the GEMS was well below the AEL limit for the duration of the month.

The coal quality supplied to the station remained generally poor during the month, impacting negatively on the particulate emissions. A further periodic deterioration in coal quality resulted in a change in dust quality and full dust hoppers leading to precipitator field failures. The change in coal quality negatively impacted on the dust handling plant due to the change in dust particle size and density.

The availability of the GEMS was good for the month of December 2018. The SO₃ common plant availability was high for the month of December 2018. The gas emissions measured by the GEMS was well below the AEL limit for the duration of the month.

The SO₃ common plant availability was high for the month of December 2018.

6. LIGHT UP:

| | |
|------------------------------|------------------------|
| Unit: | 3 |
| Fires in: | 20:15 11 December 2018 |
| Synchronisation: | 04:19 12 December 2018 |
| Emissions below Limit: | 14:02 12 December 2018 |
| Fires in to synchronisation: | 8:04 Hours |
| Synchronisation to < Limit: | 9:43 Hours |

| | |
|------------------------------|------------------------|
| Unit: | 3 |
| Fires in: | 18:41 16 December 2018 |
| Synchronisation: | 03:41 17 December 2018 |
| Emissions below Limit: | 12:50 18 December 2018 |
| Fires in to synchronisation: | 9:00 Hours |
| Synchronisation to < Limit: | 33:09 Hours |

| | |
|------------------------------|------------------------|
| Unit: | 3 |
| Fires in: | 20:35 19 December 2018 |
| Synchronisation: | 03:23 20 December 2018 |
| Emissions below Limit: | 06:09 20 December 2018 |
| Fires in to synchronisation: | 6:48 Hours |
| Synchronisation to < Limit: | 2:46 Hours |

| | |
|------------------------------|------------------------|
| Unit: | 1 |
| Fires in: | 00:30 24 December 2018 |
| Synchronisation: | 05:07 24 December 2018 |
| Emissions below Limit: | 11:19 24 December 2018 |
| Fires in to synchronisation: | 4:37 Hours |
| Synchronisation to < Limit: | 6:12 Hours |

| | |
|------------------------------|------------------------|
| Unit: | 4 |
| Fires in: | 16:30 23 December 2018 |
| Synchronisation: | 08:24 24 December 2018 |
| Emissions below Limit: | No December 2018 |
| Fires in to synchronisation: | 15:54 Hours |
| Synchronisation to < Limit: | Hours |

| | |
|------------------------------|------------------------|
| Unit: | 2 |
| Fires in: | 14:00 25 December 2018 |
| Synchronisation: | 17:07 25 December 2018 |
| Emissions below Limit: | 00:19 December 2018 |
| Fires in to synchronisation: | 3:07 Hours |
| Synchronisation to < Limit: | 7:12 Hours |

7. GRAPHS:

See attached graphs

8. COMPLAINTS

| Name of complainant | Date | Description of complaint | Action taken |
|---------------------|------|--------------------------|--------------|
| No Complaints | | | |
| | | | |
| | | | |
| | | | |

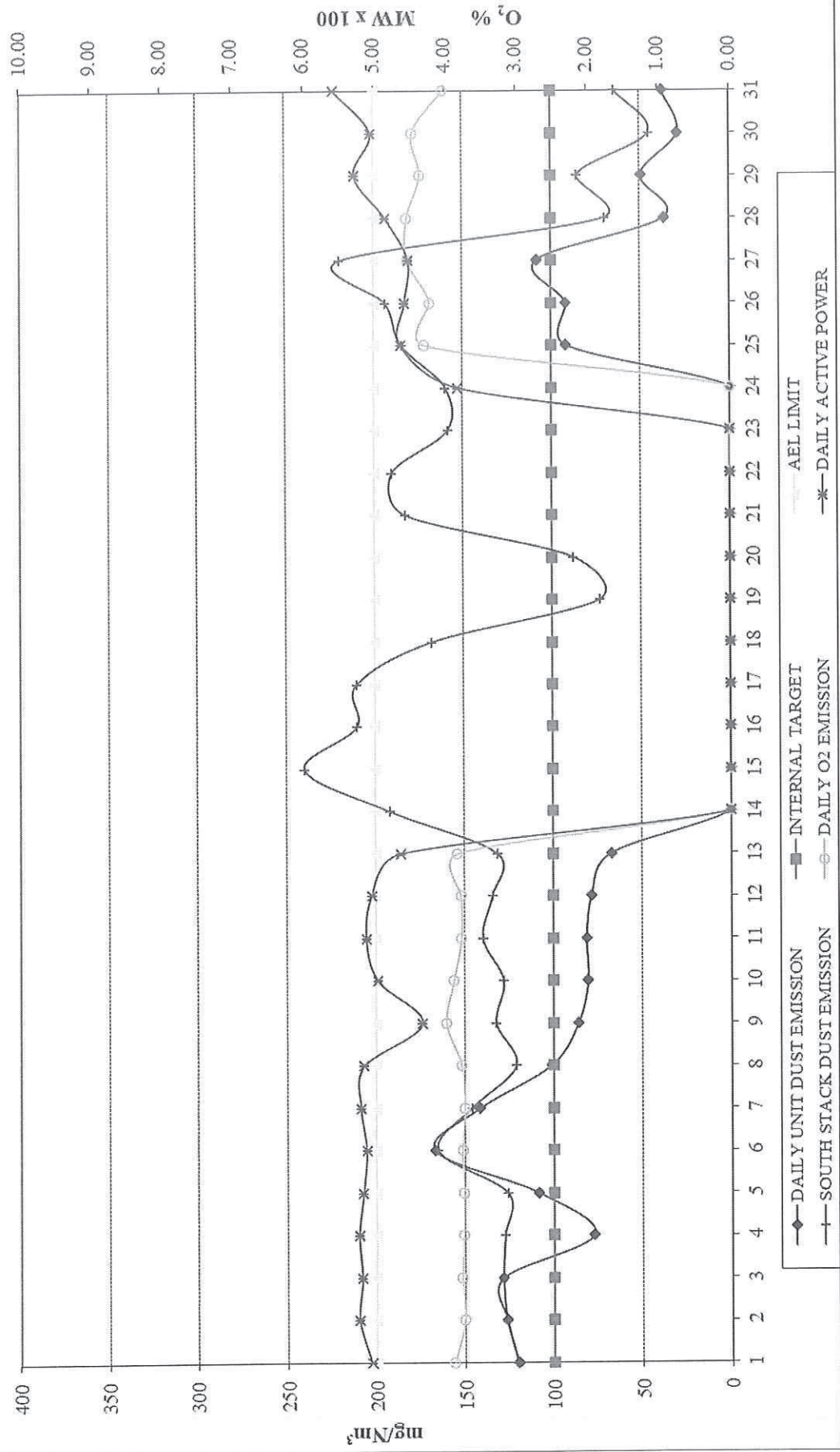
9. NOTIFICATION OF CONTRAVENTION OF EMISSION LICENCE CONDITIONS

| | | | | | | | | | | | | | | | | |
|------|------------------|--------------------------|------------------------------|--------------------------------------|---|--|---|---|---|---|---|--|---------------------------------|----------------------------|--|----------------------------|
| Date | 03 December 2018 | Power Station Unit(s) | Matla Power Station – Unit 4 | Date of incident Time of incident | Start date and time: 30 November 2018 at 20:00 End date: | Nature of incident | Extended start-up On-line maintenance Extended shut-down Upset condition | Emission limit exceedance | Details of incident | Risks posed by the incident to public health, safety and property | Toxicity of substance or by-products released by the incident | Mitigation to avoid or minimize the incident and the environment | Complier and contact details | Name: Tel no: Email: | Responsible manager and contact details | Name: Tel no: Email: |
| | | | | | | <p>The station is currently experiencing dust handling plant problems due to the failure of conveying air compressor 2 on the 28th November 2018. As a result the unit dust handling plants trip sporadically due to low air pressure. Unit 4 appears to be more sensitive than the other units and the levels in the dust hoppers increased rapidly. Several precipitator fields tripped on under-voltage protection due to the full hoppers resulting in the AEL daily average limit being exceeded as from 20:00 on the 30th November 2018. The particulate emissions were below the AEL limit periodically but the daily limit still exceeded.</p> | <p>The prevailing ambient concentrations of PM₁₀ presents a significant risk to human health given that there are sustained, elevated concentrations with continued non-compliance with both shorter and longer averaging periods. The contribution of the power station to that health risk is however negligible</p> | <p>The particulate emission from the power station is ash and not carcinogenic. The particulate levels currently emitted by the power station will be sufficiently dispersed so that by the time they are inhaled to have negligible health impacts</p> | <p>The unit load was reduced to minimum whenever the system allowed</p> | | | | | | | |

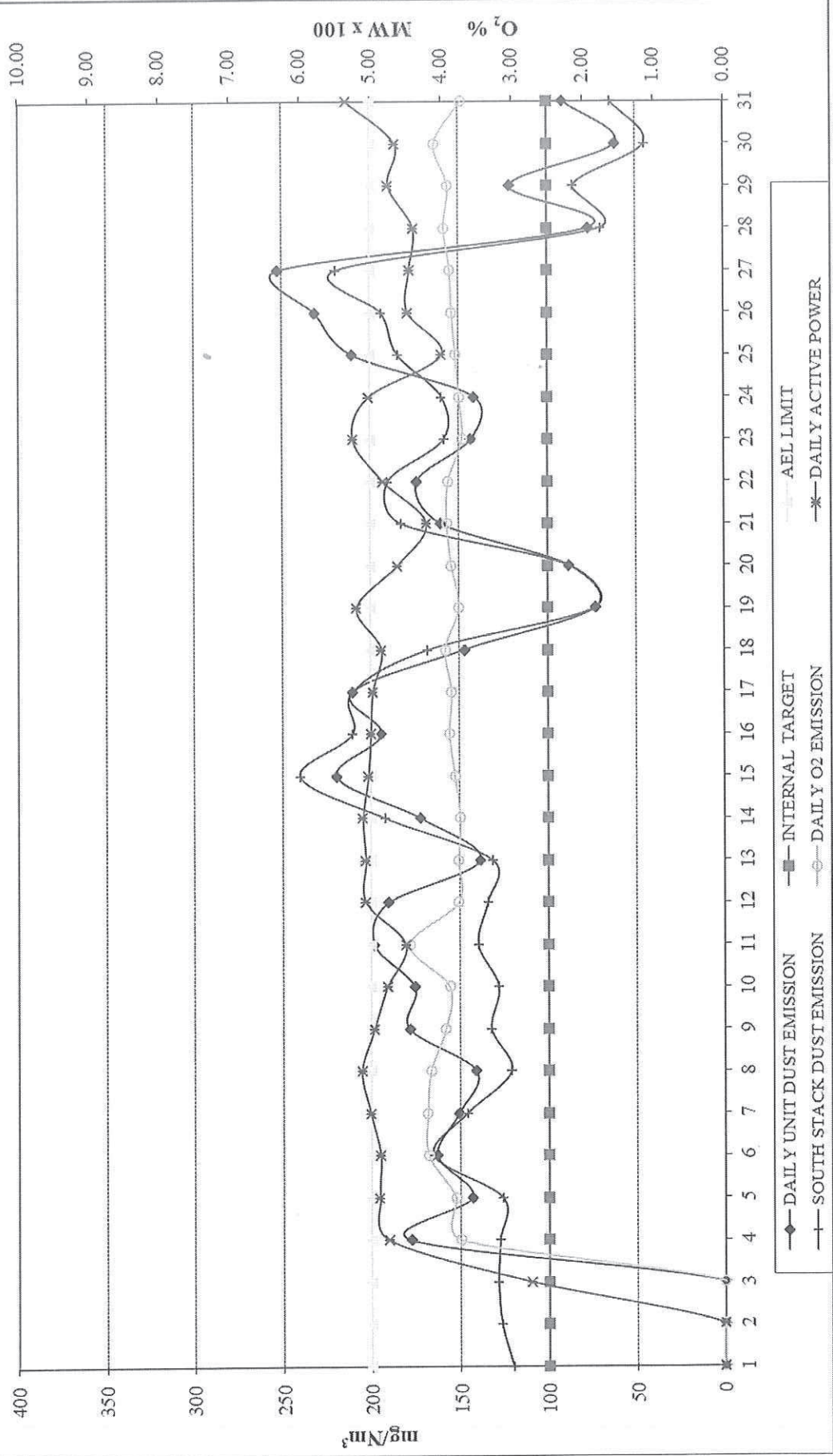
BOILER PLANT ENGINEERING

Copies to: Licensing Authority
 Power Station Manager (Acting)
 Environmental Practitioner
 Engineering Manager
 Boiler Plant Engineering Manager
 Maintenance Manager (Acting)
 Unit Electrical Maintenance Manager
 Operating Manager
 Production Manager
 Outside Plant Maintenance Manager
 Coal Manager
 Megawatt Park, Corporate Consultant Air Pollution
 Plant Performance Units 1 to 6

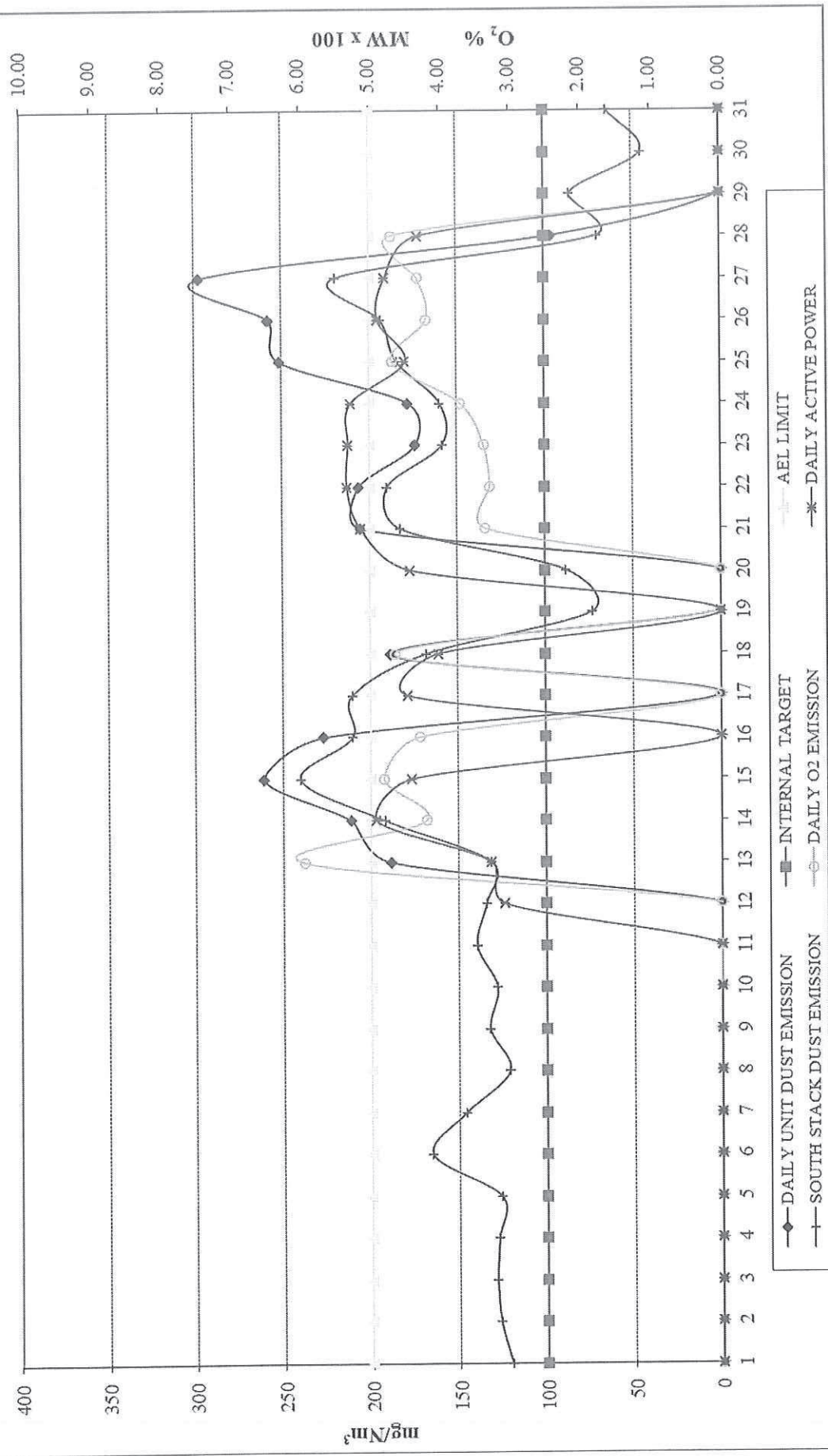
**MATLA POWER STATION
UNIT 1 DUST EMISSION REPORT
DECEMBER 2018**



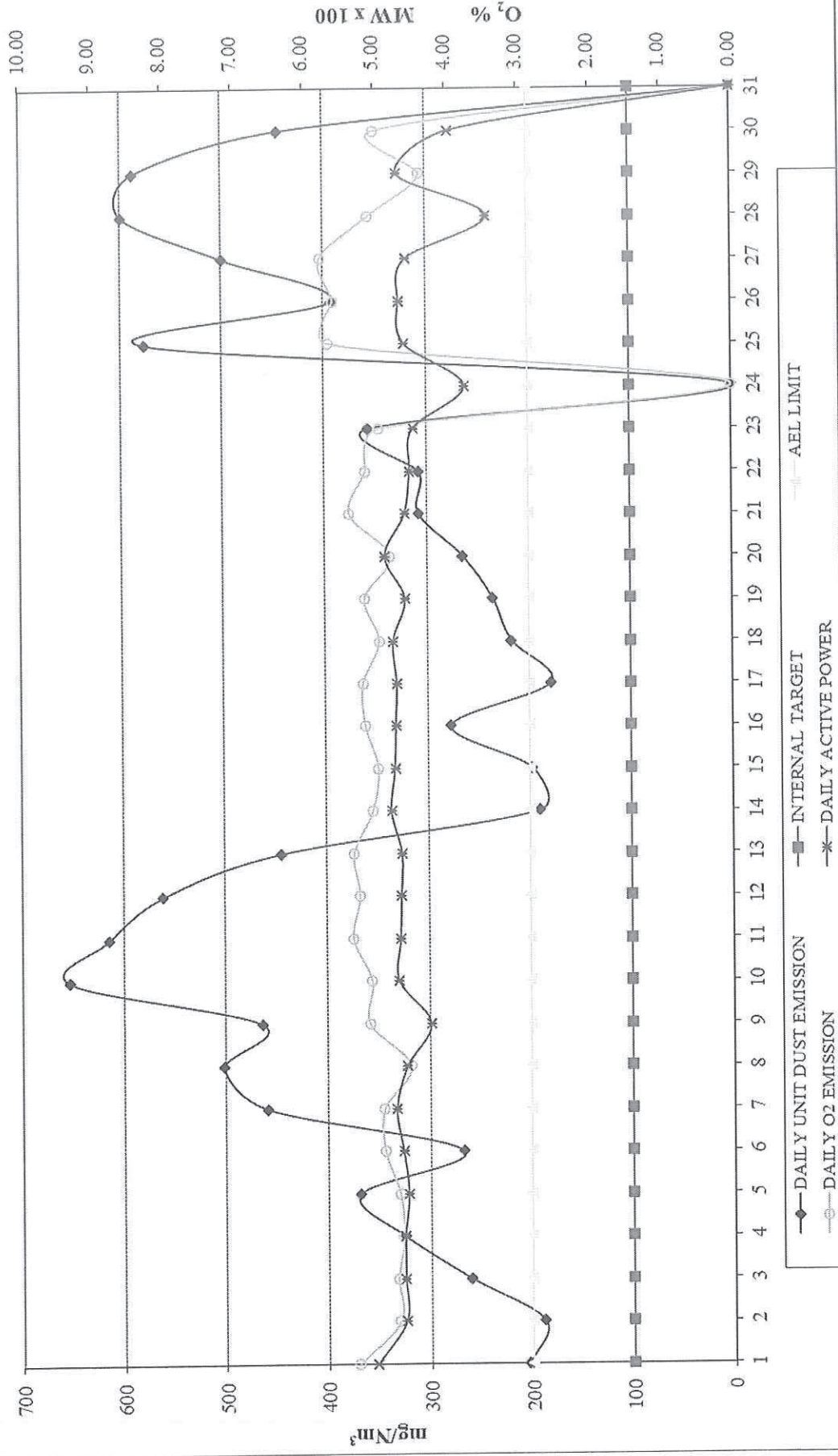
**MATLA POWER STATION
UNIT 2 DUST EMISSION REPORT
DECEMBER 2018**



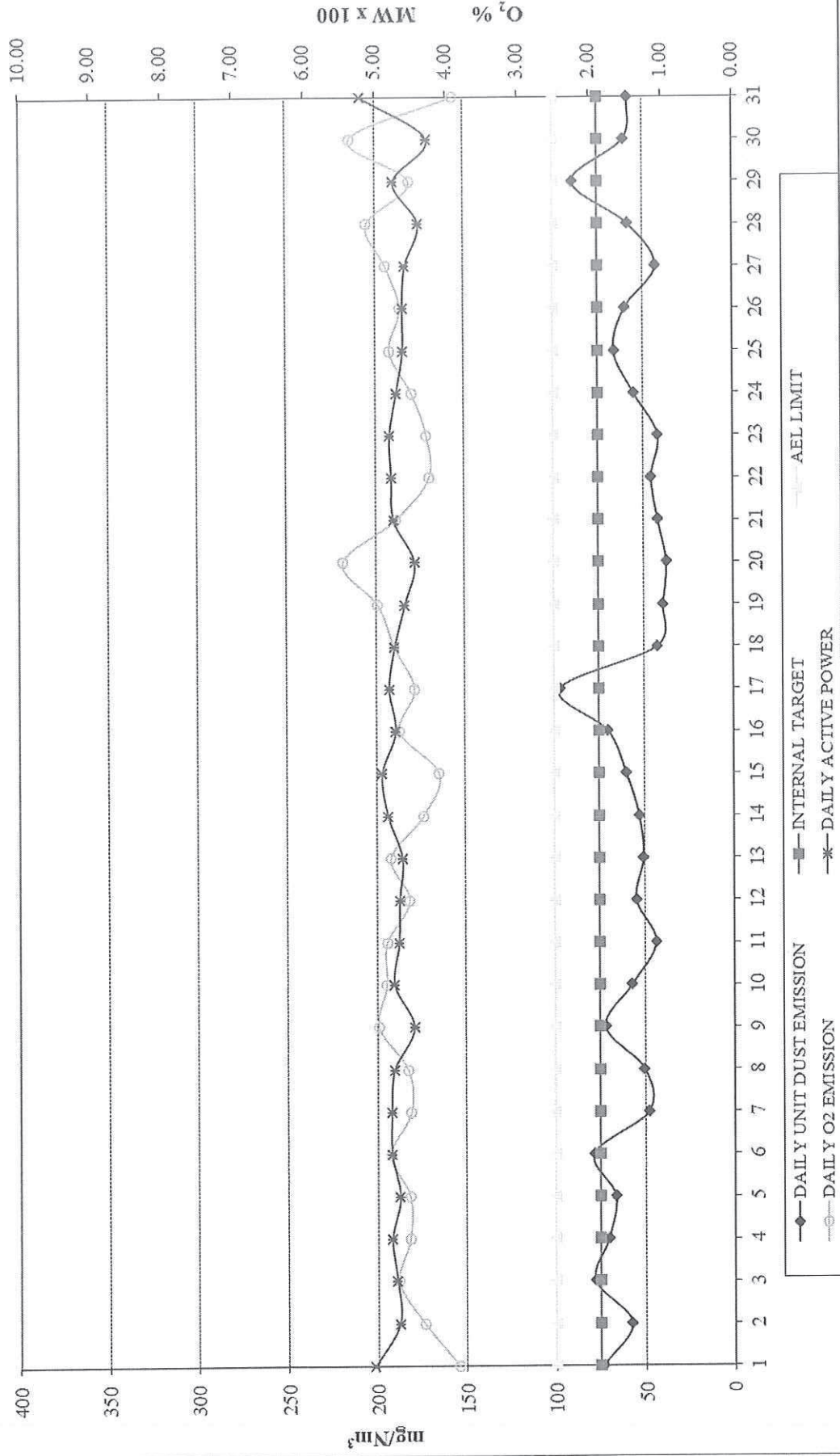
**MATLA POWER STATION
UNIT 3 DUST EMISSION REPORT
DECEMBER 2018**



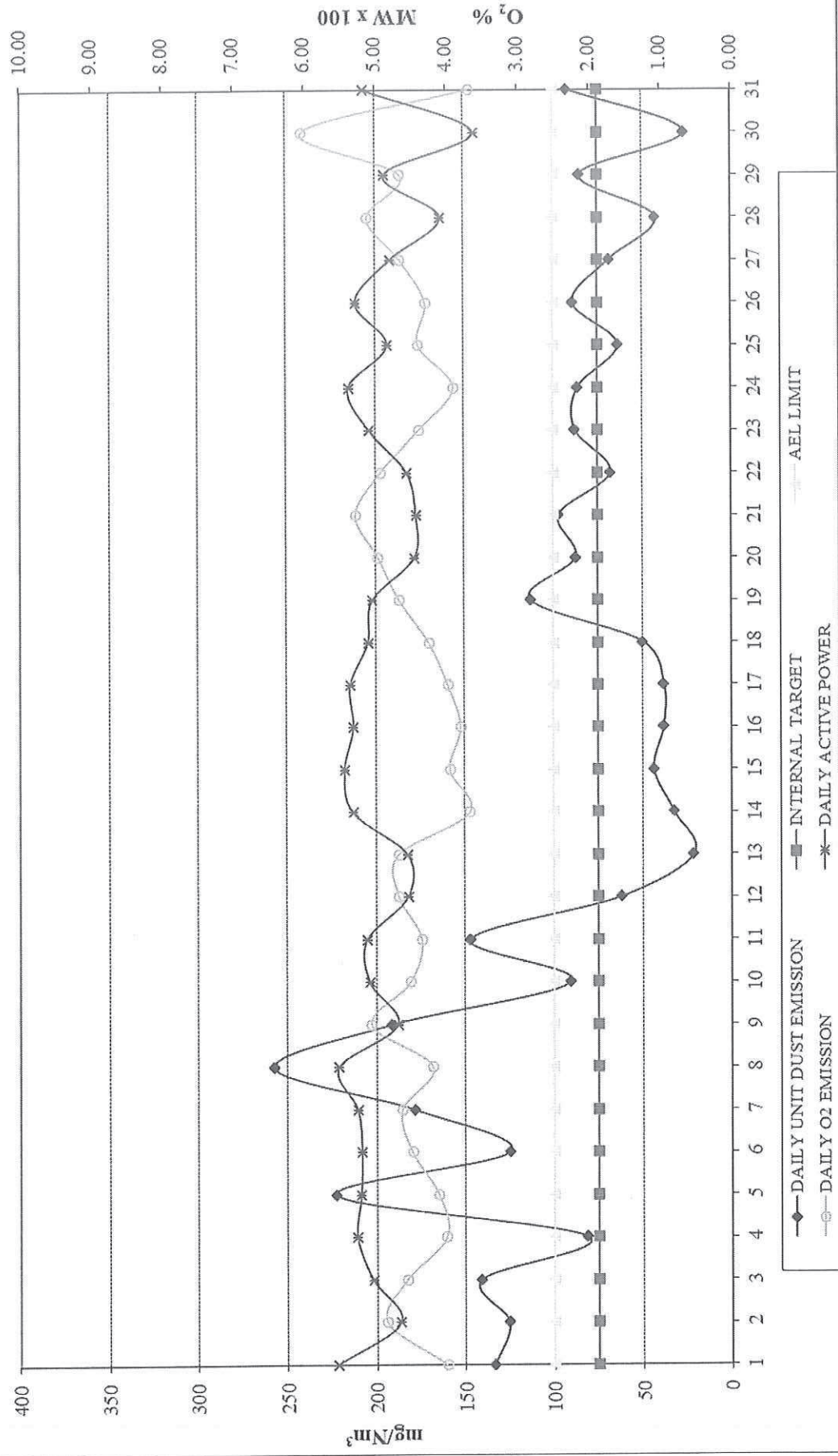
**MATLA POWER STATION
UNIT 4 DUST EMISSION REPORT
DECEMBER 2018**



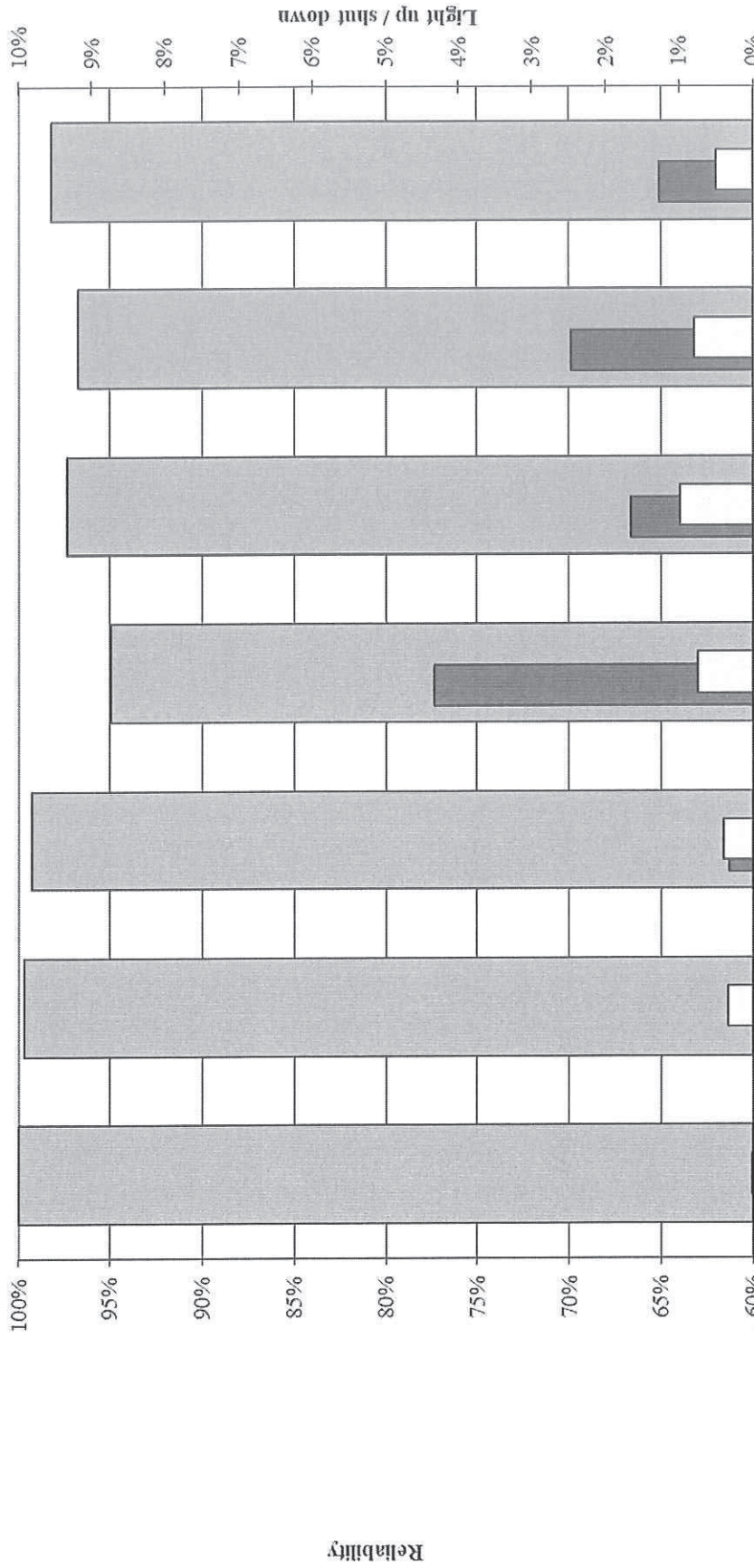
**MATLA POWER STATION
UNIT 5 DUST EMISSION REPORT
DECEMBER 2018**



**MATLA POWER STATION
UNIT 6 DUST EMISSION REPORT
DECEMBER 2018**

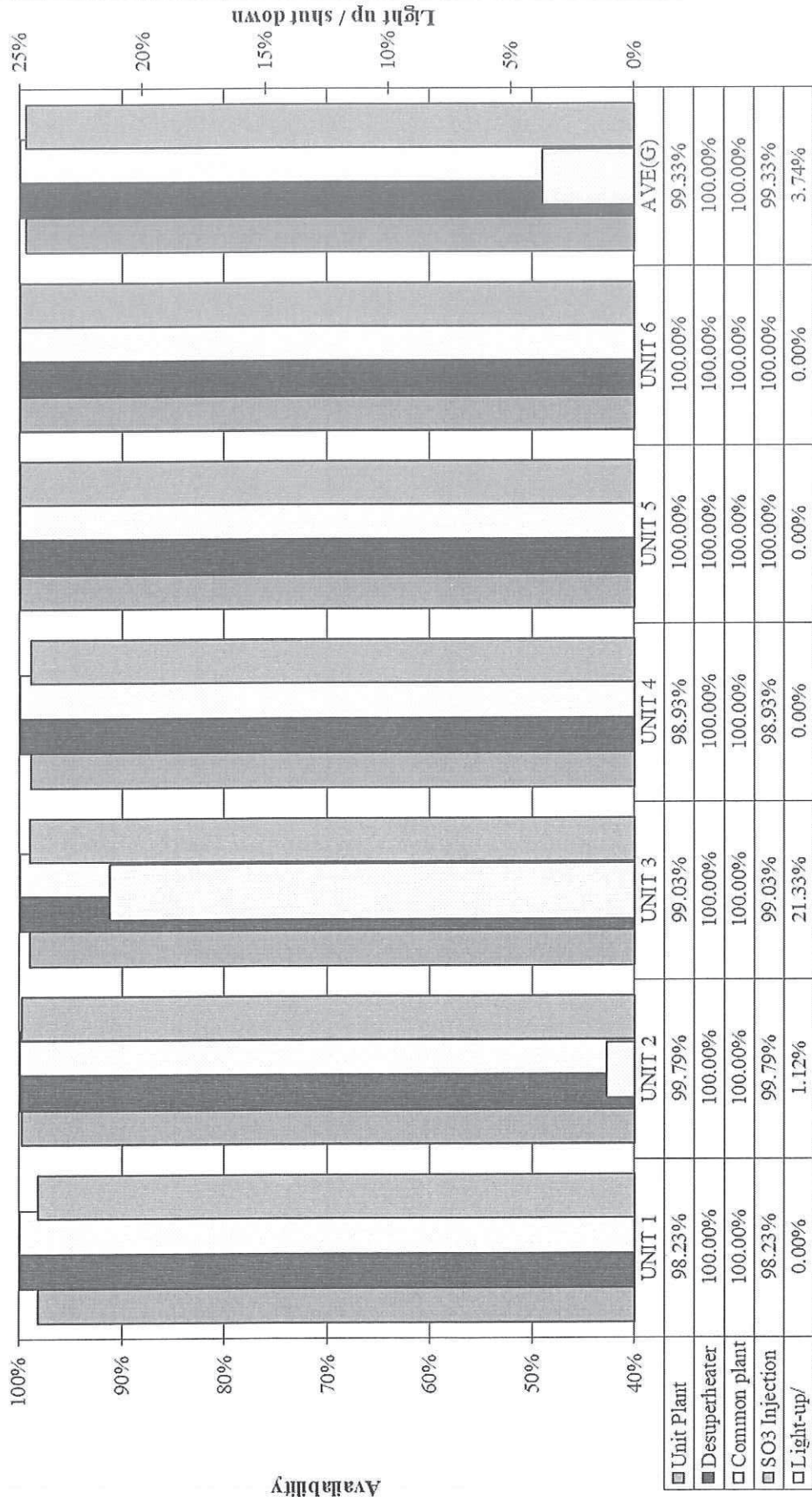


**MATLA POWER STATION
PRECIPITATOR RELIABILITY
DECEMBER 2018**

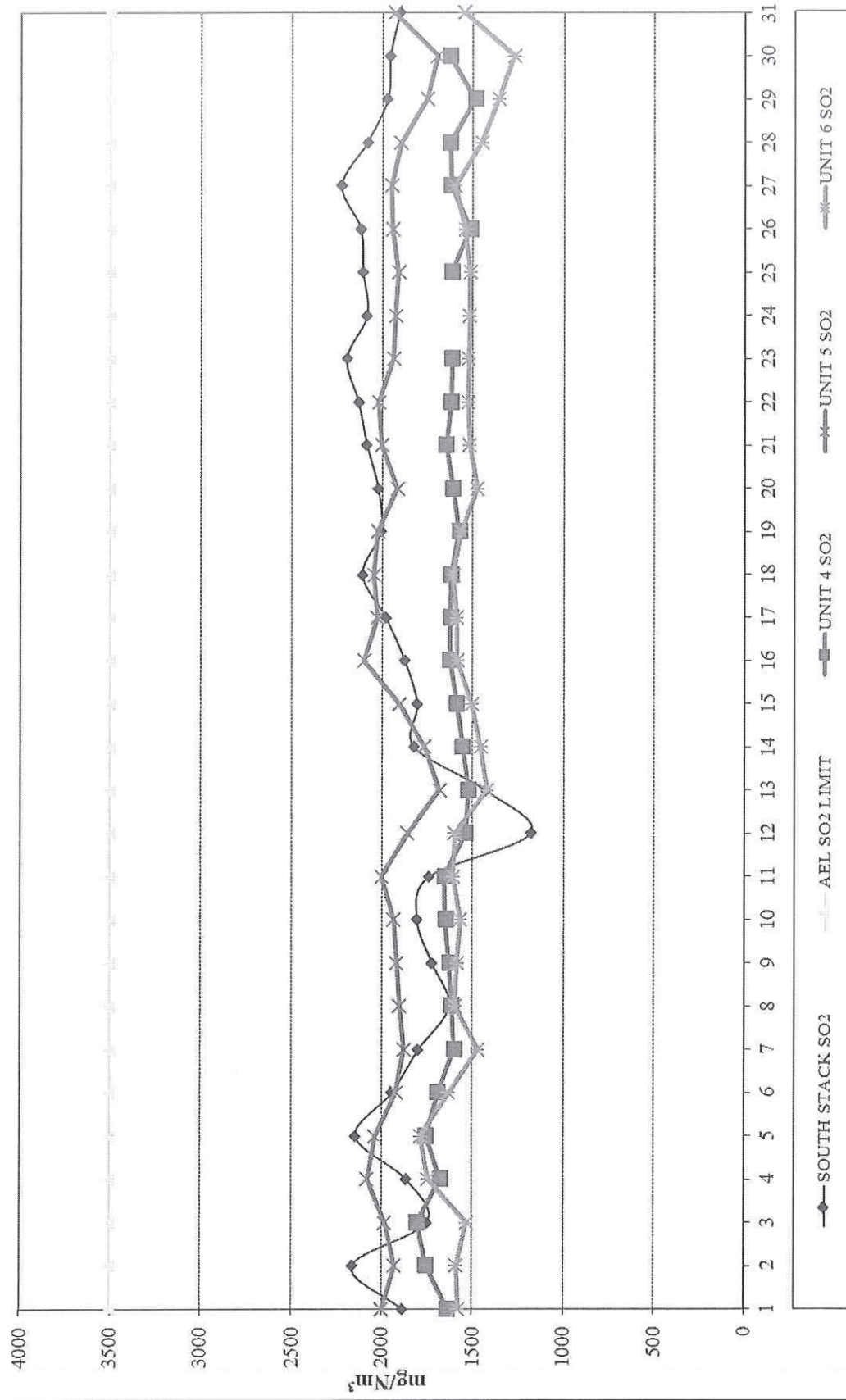


| | UNIT 1 | UNIT 2 | UNIT 3 | UNIT 4 | UNIT 5 | UNIT 6 | AVE(G) |
|----------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Reliability | 99.99% | 99.66% | 99.26% | 94.91% | 97.35% | 96.73% | 98.23% |
| Loss due to hopper levels | 0.00% | 0.00% | 0.33% | 4.34% | 1.66% | 2.46% | 1.27% |
| Loss due to short term incidents | 0.01% | 0.34% | 0.41% | 0.75% | 0.99% | 0.81% | 0.50% |
| Loss due to Internal faults | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

**MATLA POWER STATION
SO₃ PLANT AVAILABILITY
DECEMBER 2018**



**MATLA POWER STATION
SMOKE STACK SO₂ EMISSION REPORT
DECEMBER 2018**



**MATLA POWER STATION
SMOKE STACK NO₂ EMISSION REPORT
DECEMBER 2018**

