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Date: 13 May 2024

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Dear Mr Hlanyane

## TUTUKA POWER STATION MONTHLY REPORT FOR APRIL 2024

This serves as the monthly report required in terms of Section 7.4 of Tutuka Power Station's Atmospheric Emission License (16/4/Lekwa/Eskom H SOC Ltd TPS/0013/2019/f03). The report includes verified emissions for Particulate Matters, Sulphur, and Nitrogen dioxides for the month of March 2024

The report presents monthly trends for each monitored pollutant. Units 5 and 6 were offload for the month of April 2024. There was only one exceedance for Particulate Matter recorded in unit 2 which fell within the 48-hour period allowed for start-ups, maintenance and shut down.

### 1 RAW MATERIALS AND PRODUCTS

| Raw Materials and Products | Raw Material Type         | Units  | Max. Permitted                     | Actual Consumption Apr-2024         |
|----------------------------|---------------------------|--------|------------------------------------|-------------------------------------|
|                            | Coal                      | Tons   | 1 200 000                          | 248 752                             |
|                            | Fuel Oil                  | Tons   | 10 000                             | 4153.95                             |
| Production Rates           | Product / By-Product Name | Units  | Max. Production Capacity Permitted | Indicative Production Rate Apr-2024 |
|                            | Energy                    | GWh    | 2 527                              | 428.7                               |
|                            | Ash                       | Tons   | 350 000                            | 543                                 |
|                            | RE Ash                    | kg/MWh | not specified                      | 1.31                                |

Note: Maximum energy rate is as per the maximum capacity stated in the AEL: [3 510 MW] x 24 hrs x days in Month/1000 to convert to GWh

### 2 ENERGY SOURCE CHARACTERISTICS

**Generation**  
Tutuka Power Station  
Standerton/Bethal Road  
Private Bag X2016 Standerton 2430 SA  
Tel +27 17 749 9237 [www.eskom.co.za](http://www.eskom.co.za)  
Eskom Holdings SOC Ltd Reg No 2002/015527/30



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| Coal Characteristics | Units | Stipulated Range | Monthly Average Content |
|----------------------|-------|------------------|-------------------------|
| CV Content           | MJ/kg | 16-24            | 21.850                  |
| Sulphur Content      | %     | 0.6 TO 2.6       | 0.000                   |
| Ash Content          | %     | 21 TO 33         | 24.170                  |

### 3 EMISSION LIMITS (mg/Nm<sup>3</sup>)

| Associated Unit/Stack | PM  | SO <sub>2</sub> | NO <sub>x</sub> |
|-----------------------|-----|-----------------|-----------------|
| Unit 1                | 300 | 3400            | 1200            |
| Unit 2                | 300 | 3400            | 1200            |
| Unit 3                | 300 | 3400            | 1200            |
| Unit 4                | 300 | 3400            | 1200            |
| Unit 5                | 300 | 3400            | 1200            |
| Unit 6                | 300 | 3400            | 1200            |

### 4 ABATEMENT TECHNOLOGY (%)

| Associated Unit/Stack | Technology Type                    | Efficiency Apr-2024 |
|-----------------------|------------------------------------|---------------------|
| Unit 1                | Electro Static Precipitators (ESP) | 99.8%               |
| Unit 2                | Electro Static Precipitators (ESP) | 100.0%              |
| Unit 3                | Electro Static Precipitators (ESP) | 99.7%               |
| Unit 4                | Electro Static Precipitators (ESP) | 100.0%              |
| Unit 5                | Electro Static Precipitators (ESP) | Unit Off            |
| Unit 6                | Electro Static Precipitators (ESP) | Unit Off            |

Note: The ESP does not have bypass mode operating, hence plant considered 100% Utilised.

### 5 MONITOR RELIABILITY (%)

| Associated Unit/Stack | PM    | SO <sub>2</sub> | NO    | O <sub>2</sub> |
|-----------------------|-------|-----------------|-------|----------------|
| Unit 1                | 100.0 | 100.0           | 99.7  | 100.0          |
| Unit 2                | 100.0 | 100.0           | 100.0 | 100.0          |
| Unit 3                | 100.0 | 100.0           | 96.7  | 100.0          |
| Unit 4                | Off   | Off             | Off   | Off            |
| Unit 5                | Off   | Off             | Off   | Off            |
| Unit 6                | Off   | Off             | Off   | Off            |

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### 6 EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of April-2024

| Associated Unit/Stack | PM (tons)    | SO <sub>2</sub> (tons) | NO <sub>x</sub> (tons) |
|-----------------------|--------------|------------------------|------------------------|
| Unit 1                | 287.2        | 2 085                  | 758                    |
| Unit 2                | 197.1        | 1 473                  | 561                    |
| Unit 3                | 41.2         | 410                    | 208                    |
| Unit 4                | 17.0         | 298                    | 107                    |
| Unit 5                | Off          | Off                    | Off                    |
| Unit 6                | Off          | Off                    | Off                    |
| <b>SUM</b>            | <b>542.5</b> | <b>4266</b>            | <b>1 635</b>           |

Table 6.2: Operating days in compliance to PM AEL Limit - April 2024

| Associated Unit/Stack | Normal    | Grace    | Section 30 | Contravention | Total Exceedance | Average PM (mg/Nm <sup>3</sup> ) |
|-----------------------|-----------|----------|------------|---------------|------------------|----------------------------------|
| Unit 1                | 23        | 0        | 0          | 0             | 0                | 236.9                            |
| Unit 2                | 14        | 1        | 0          | 0             | 1                | 244.2                            |
| Unit 3                | 4         | 0        | 0          | 0             | 0                | 200.7                            |
| Unit 4                | 3         | 0        | 0          | 0             | 0                | 115.8                            |
| Unit 5                | Off       | Off      | Off        | Off           | Off              | Off                              |
| Unit 6                | Off       | Off      | Off        | Off           | Off              | Off                              |
| <b>SUM</b>            | <b>41</b> | <b>1</b> | <b>0</b>   | <b>0</b>      | <b>1</b>         |                                  |

Table 6.3: Operating days in compliance to SO<sub>2</sub> AEL Limit - April 2024

| Associated Unit/Stack | Normal    | Grace    | Section 30 | Contravention | Total Exceedance | Average SO <sub>2</sub> (mg/Nm <sup>3</sup> ) |
|-----------------------|-----------|----------|------------|---------------|------------------|-----------------------------------------------|
| Unit 1                | 25        | 0        | 0          | 0             | 0                | 1 752.3                                       |
| Unit 2                | 18        | 0        | 0          | 0             | 0                | 1 883.3                                       |
| Unit 3                | 5         | 0        | 0          | 0             | 0                | 2 074.2                                       |
| Unit 4                | 5         | 0        | 0          | 0             | 0                | 2 065.5                                       |
| Unit 5                | Off       | Off      | Off        | Off           | Off              | Off                                           |
| Unit 6                | Off       | Off      | Off        | Off           | Off              | Off                                           |
| <b>SUM</b>            | <b>48</b> | <b>0</b> | <b>0</b>   | <b>0</b>      | <b>0</b>         |                                               |

Table 6.4: Operating days in compliance to NO<sub>x</sub> AEL Limit - April 2024

| Associated Unit/Stack | Normal    | Grace    | Section 30 | Contravention | Total Exceedance | Average NO <sub>x</sub> (mg/Nm <sup>3</sup> ) |
|-----------------------|-----------|----------|------------|---------------|------------------|-----------------------------------------------|
| Unit 1                | 25        | 0        | 0          | 0             | 0                | 625.4                                         |
| Unit 2                | 18        | 0        | 0          | 0             | 0                | 699.8                                         |
| Unit 3                | 5         | 0        | 0          | 0             | 0                | 966.3                                         |
| Unit 4                | 5         | 0        | 0          | 0             | 0                | 740.8                                         |
| Unit 5                | Off       | Off      | Off        | Off           | Off              | Off                                           |
| Unit 6                | Off       | Off      | Off        | Off           | Off              | Off                                           |
| <b>SUM</b>            | <b>48</b> | <b>0</b> | <b>0</b>   | <b>0</b>      | <b>0</b>         |                                               |

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Note: NOx emissions is measured as NO in PPM. Final NOx value is expressed as total NO<sub>2</sub>

Table 6.5: Legend  
Description

| Condition     | Colour    | Description                                                      |
|---------------|-----------|------------------------------------------------------------------|
| Normal        | Green     | Emissions below Emission Limit Value (ELV)                       |
| Grace         | Dark 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 |

Figure 1: Tutuka Unit 1 PM Emissions - April 2024

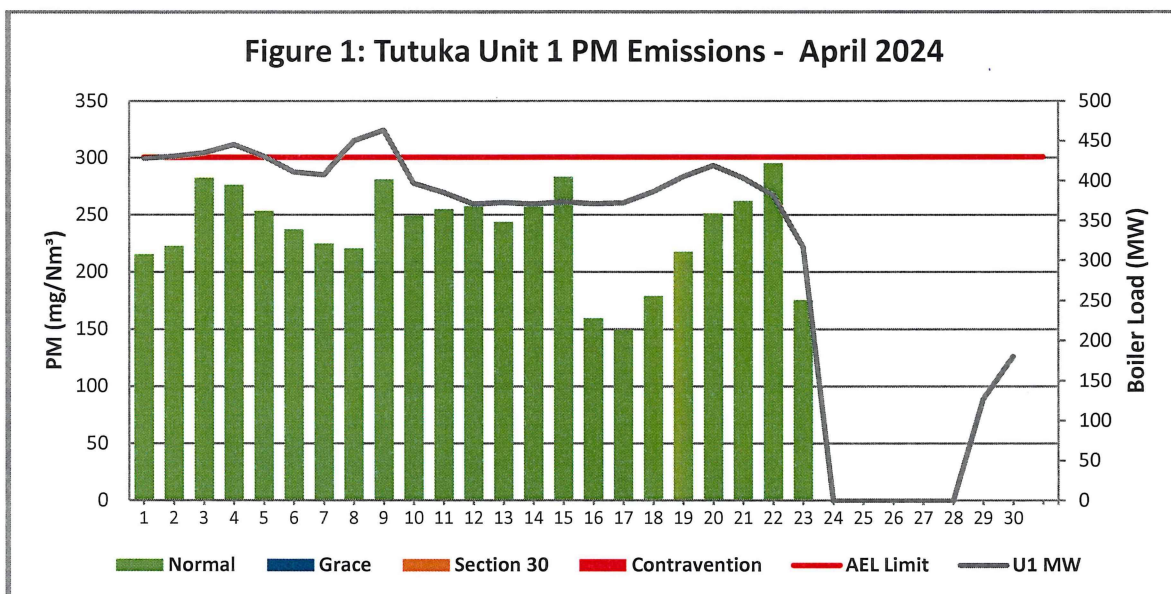
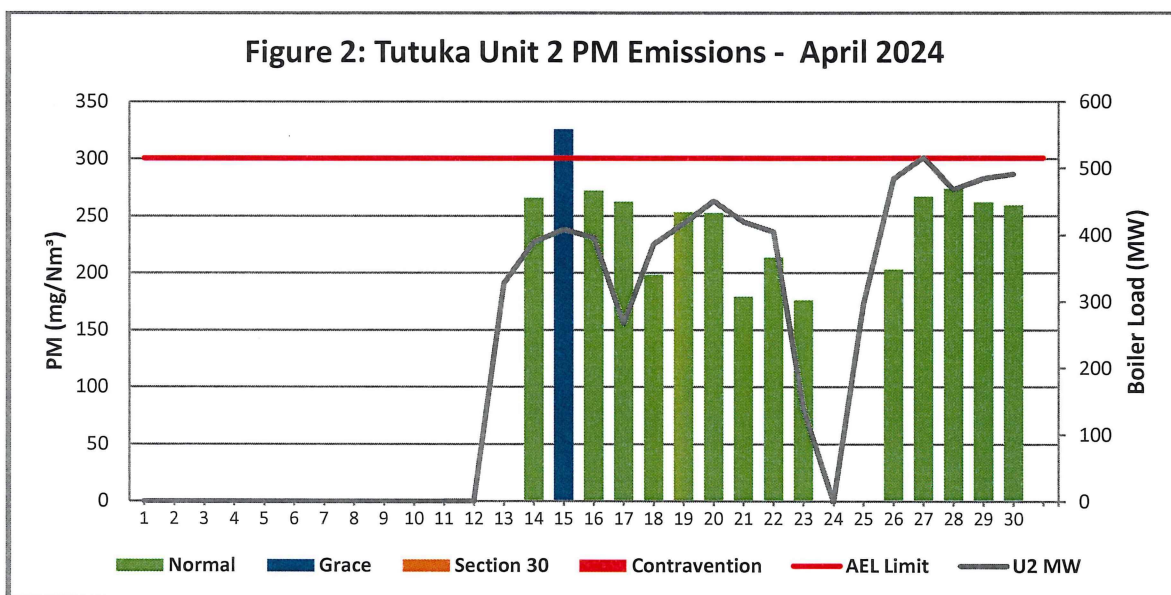


Figure 2: Tutuka Unit 2 PM Emissions - April 2024



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Figure 3: Tutuka Unit 3 PM Emissions - April 2024

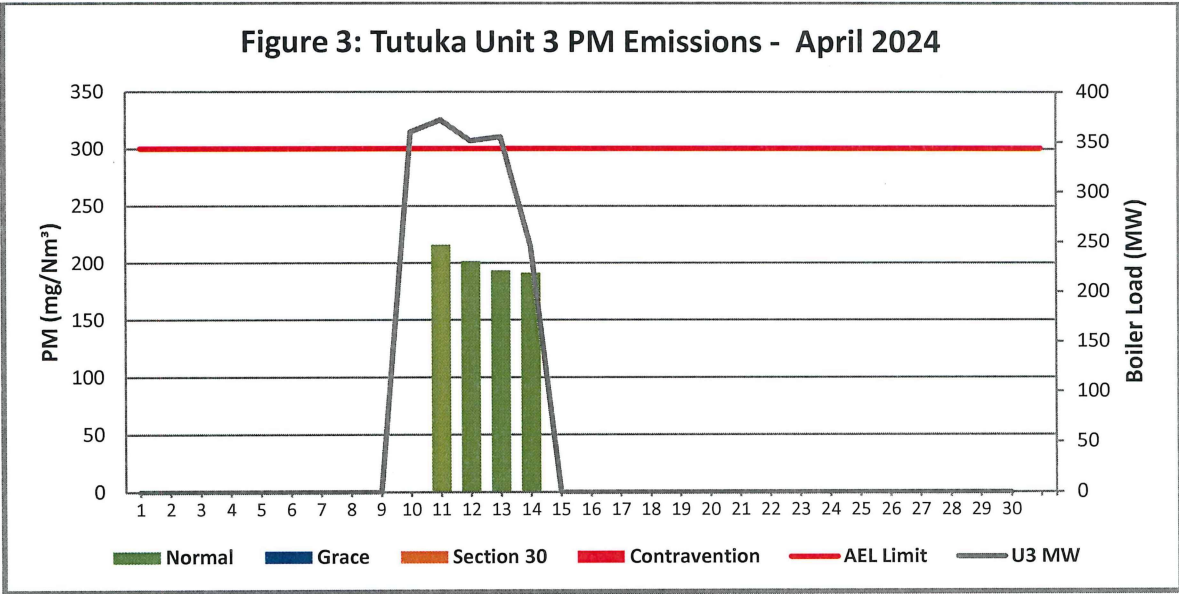
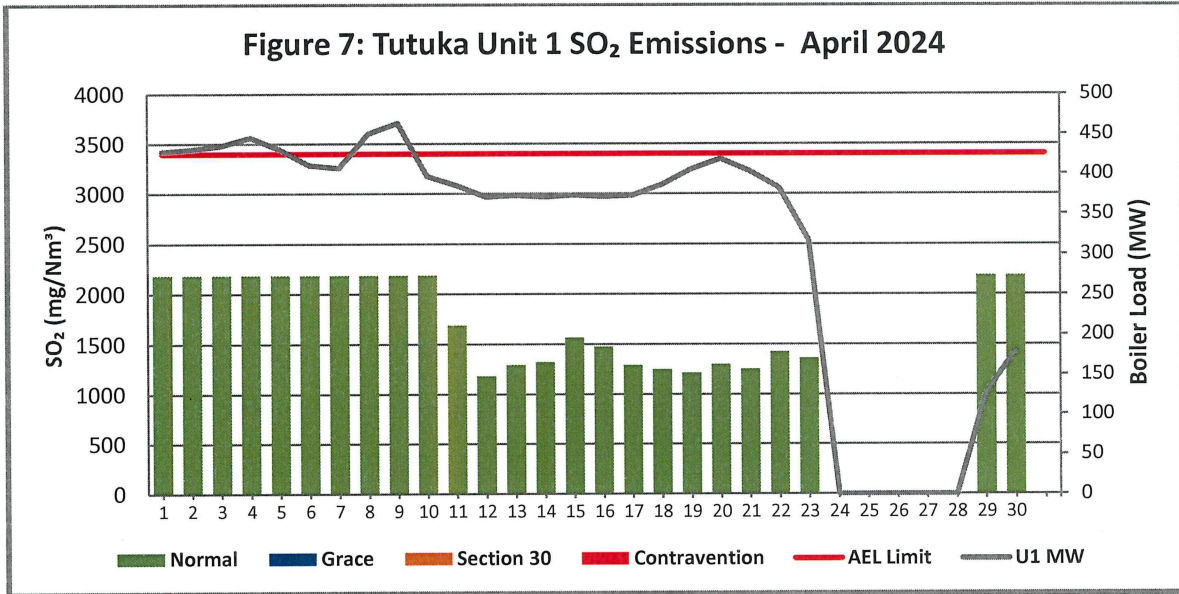


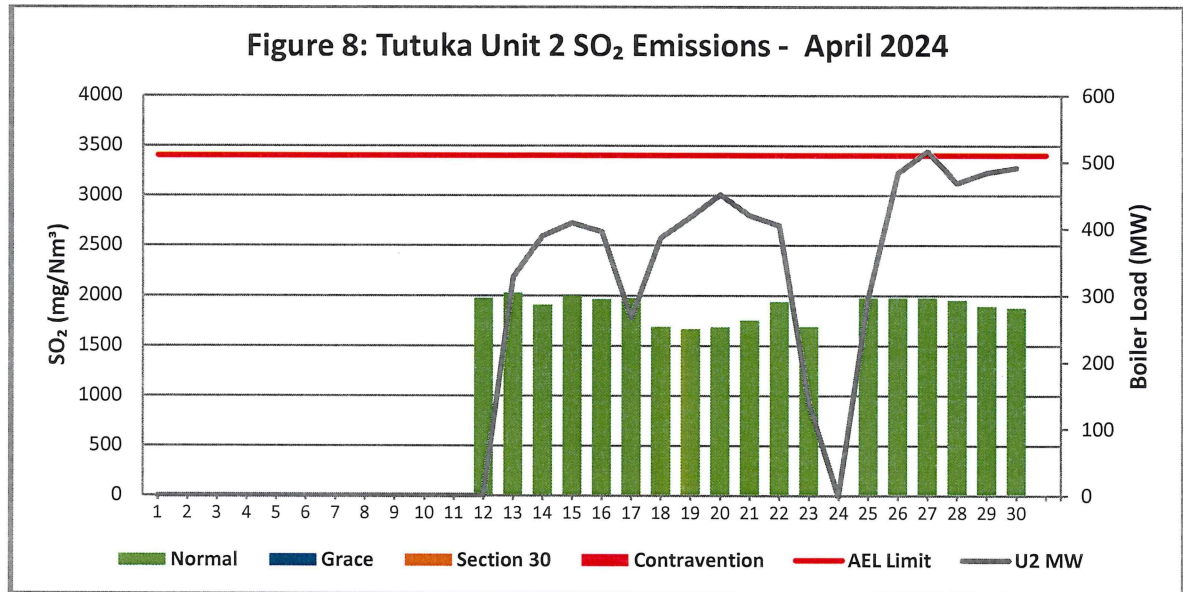
Figure 7: Tutuka Unit 1 SO<sub>2</sub> Emissions - April 2024



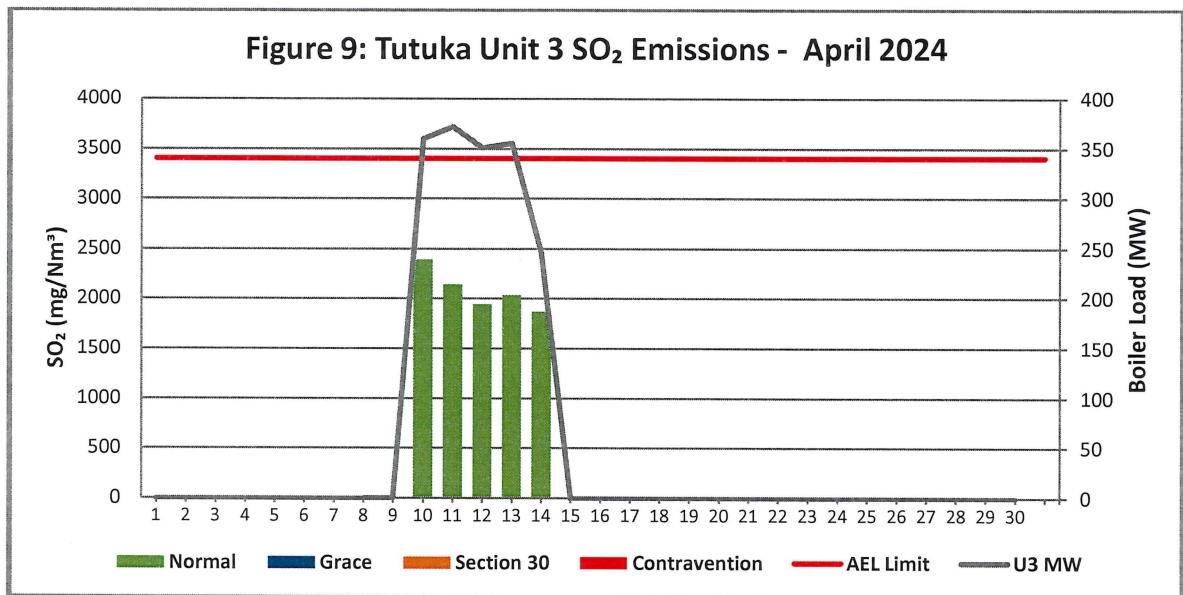
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**Figure 8: Tutuka Unit 2 SO<sub>2</sub> Emissions - April 2024**



**Figure 9: Tutuka Unit 3 SO<sub>2</sub> Emissions - April 2024**



*[Handwritten signature]*

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Figure 10: Tutuka Unit 4 SO<sub>2</sub> Emissions - April 2024

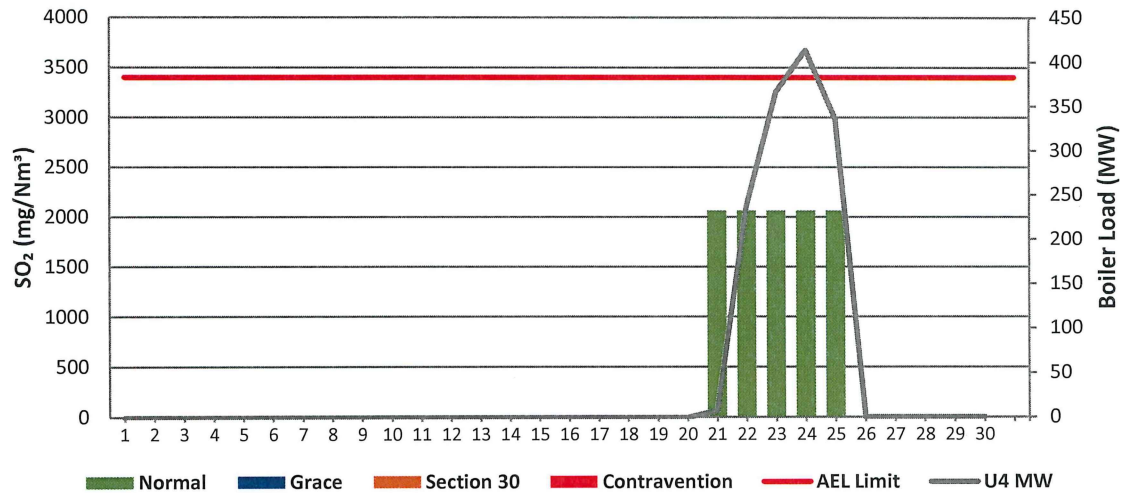
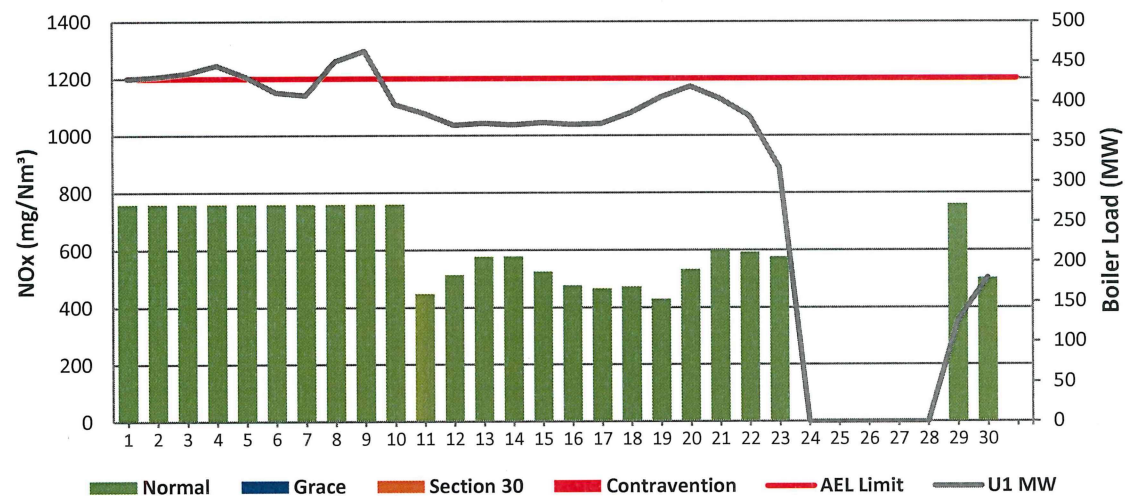


Figure 13: Tutuka Unit 1 NO<sub>x</sub> Emissions - April 2024



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Figure 14: Tutuka Unit 2 NOx Emissions - April 2024

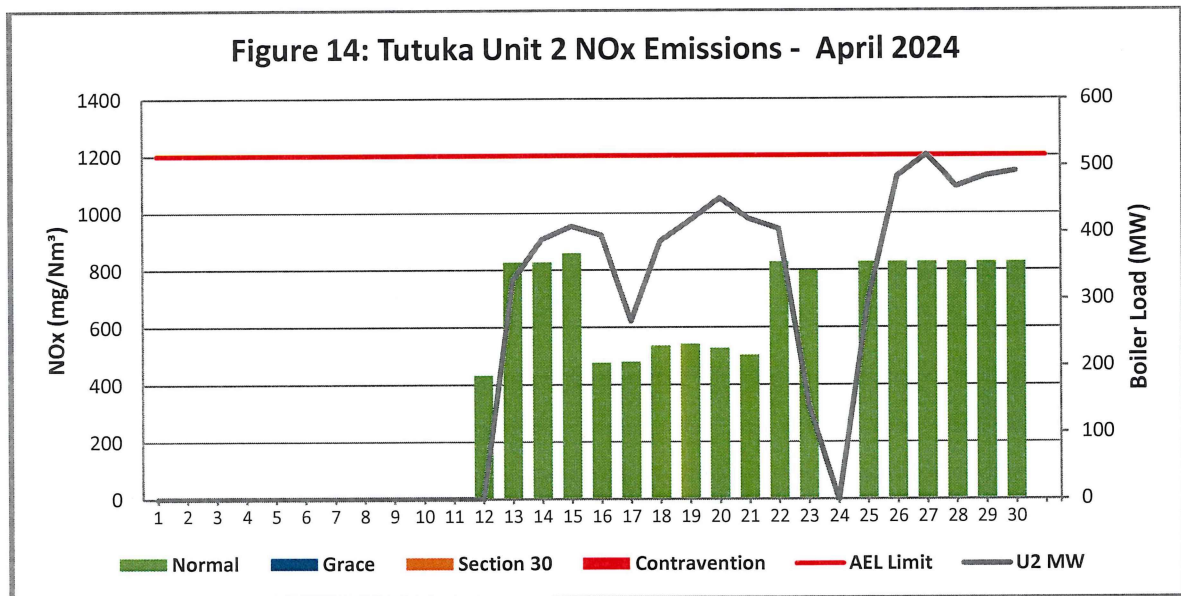
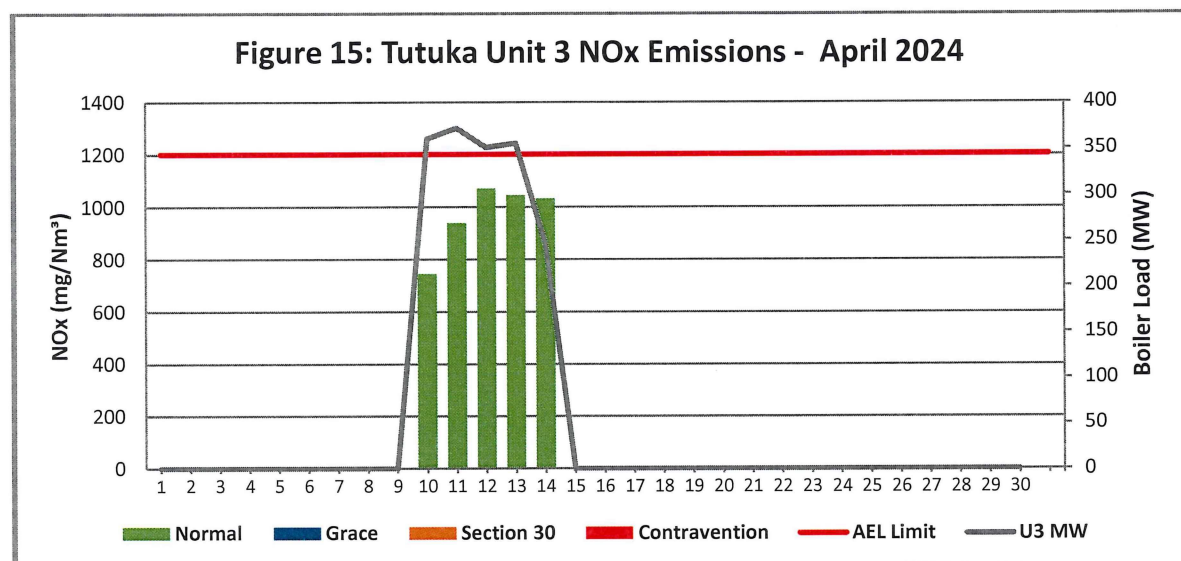
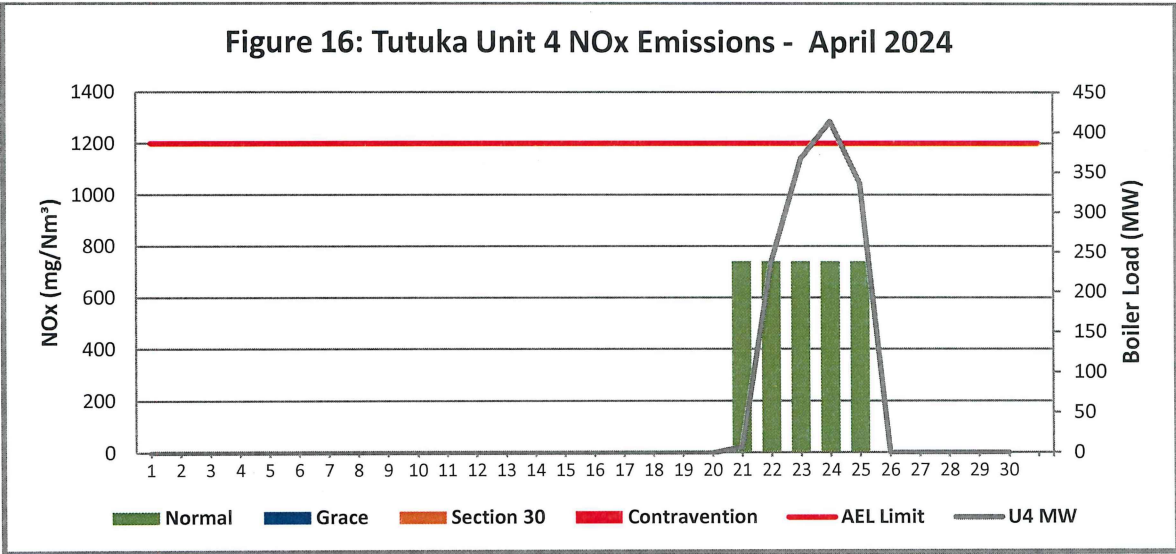


Figure 15: Tutuka Unit 3 NOx Emissions - April 2024



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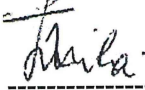


7. COMPLAINTS REGISTER

| Source Code/Name                                         | Root Cause Analysis | Calculation of Impacts/emissions associated with the incident | Dispersion modelling of pollutants where applicable | Measures implemented to prevent recurrence | Date by which measure will be implemented |
|----------------------------------------------------------|---------------------|---------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------|-------------------------------------------|
| No complaints were received for the month of April 2024. |                     |                                                               |                                                     |                                            |                                           |

Yours Sincerely

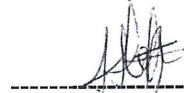
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Xoli Jila

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