

VEOLIA HIGH TEMPERATURE INCINERATION PLANT

PERMIT No. BS5193IE

Annual Report 2018

The information shown in this report is supplied to satisfy the requirements of Permit No. BS5193IE, Clauses 4.1.3 to 4.1.6.

Waste Inputs (tonnes)

| Waste Receipts | Q1 | Q2 | Q3 | Q4 | Totals |
|------------------------|-----------|----------|---------|---------|-----------------|
| Hazardous Waste | 15490.945 | 10948.9 | 4870.82 | 16031 | 47341.66 |
| Non Hazardous Waste | 475.315 | 275.212 | 86.438 | 386.64 | 1223.60 |
| Clinical Hazardous | 143.69 | 133.15 | 13.31 | 195.86 | 486.01 |
| Clinical Non Hazardous | 122.08 | 30.276 | 2.653 | 161.09 | 316.10 |
| TFS | 2146.02 | 1191.21 | 650.54 | 2150 | 6137.75 |
| LLW | 203.69 | 299.58 | 105.73 | 795.82 | 1404.82 |
| Quarter Totals | 18581.74 | 12878.30 | 5729.49 | 19720.4 | 56909.94 |

Waste Incinerated

Liquids = 45059.96 tonnes

Solids = 11748.88 tonnes

Gas = 438.40 tonnes

Total = 57247.24 tonnes

Operating Hours

Available 8760 hours

Burning Waste 6190 hours

Planned Outages 1776 hours

Unplanned Outages 794 hours

Water Usage

Abstraction from River Gowy 987,118 cubic metres

River Dee Non-Potable 200,131 cubic metres

Towns 28,317 cubic metres

Water Discharge

Discharge to Estuary 974,420 cubic metres

Energy Usage

| | | |
|------------------------|----------------|------------------------------------|
| Fuel Oil (Non Process) | 369.84 tonnes | |
| Fuel oil (Process) | 403.81 tonnes | 7.05 kg/tonne waste incinerated |
| Electrical energy | 14,635,052 kWh | 255.65 kWh/tonne waste incinerated |

Lime Consumption

| | | |
|---------------|----------------|----------------------------------|
| Quicklime | 2449.06 tonnes | 42.78 kg/tonne waste incinerated |
| Hydrated lime | 423.76 tonnes | 7.40 kg/tonne waste incinerated |

Activated Carbon Consumption

N/A

Caustic

| | | |
|----------------------|----------------|----------------------------------|
| 32% Sodium Hydroxide | 3186.71 tonnes | 55.67 kg/tonne waste incinerated |
|----------------------|----------------|----------------------------------|

Urea

| | | |
|--------------|---------------|---------------------------------|
| 40% Solution | 415.27 tonnes | 7.25 kg/tonne waste incinerated |
|--------------|---------------|---------------------------------|

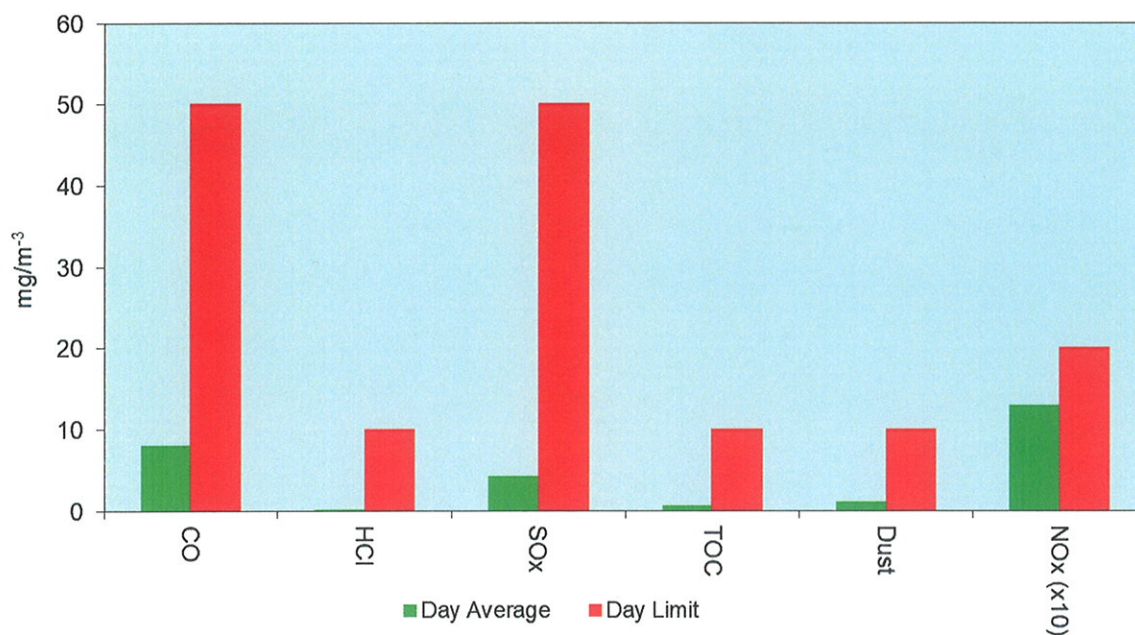
Sodium Hydrosulphide (Hg abatement)

| | | |
|--------------|---------------|---------------------------------|
| 40% Solution | 151.33 tonnes | 2.64 kg/tonne waste incinerated |
|--------------|---------------|---------------------------------|

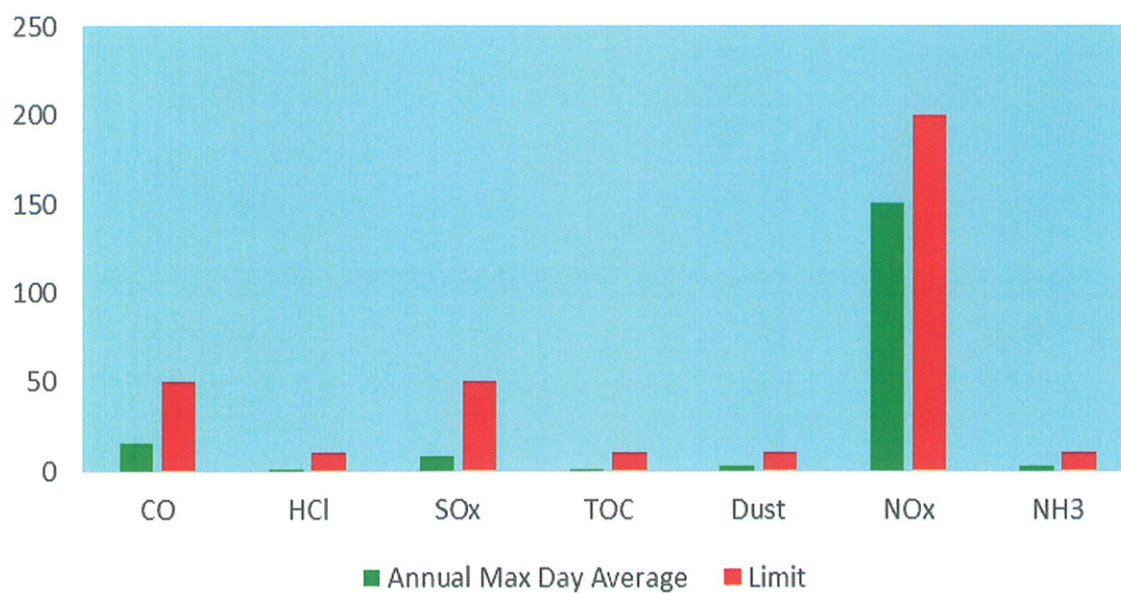
CEMS

WID compliant. No significant downtime other than routine quarterly service.

Annual Emissions Data 2018

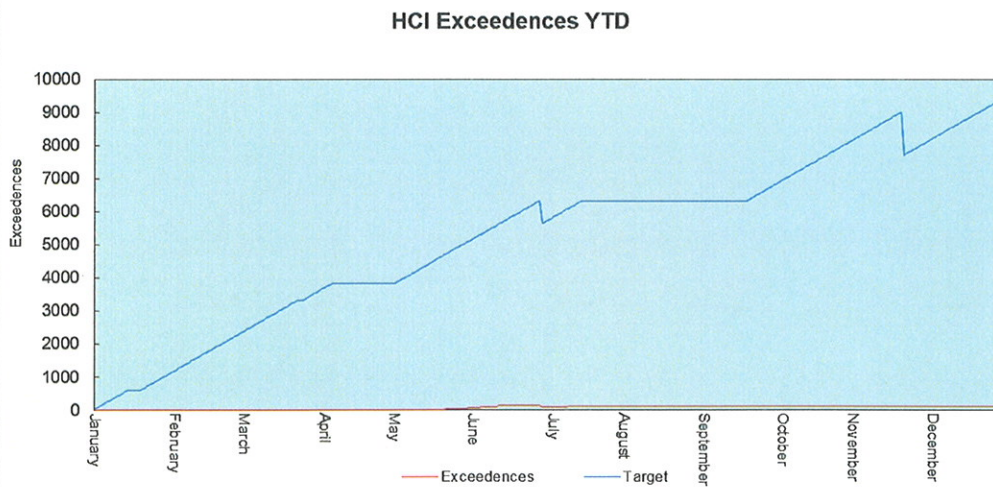
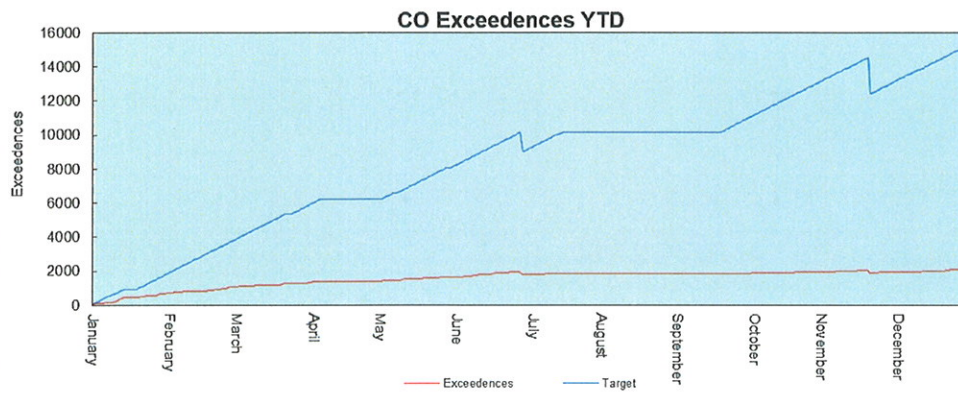


Annual Emissions- Average Daily Maximums

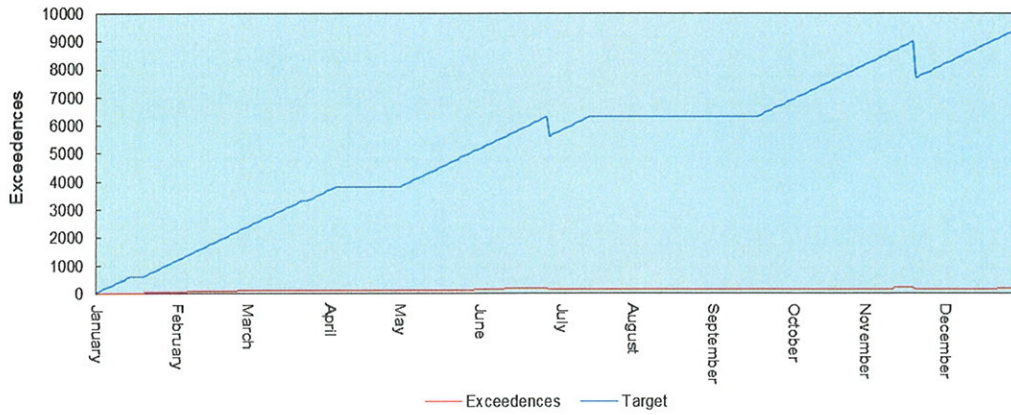


Plant Performance Against WID

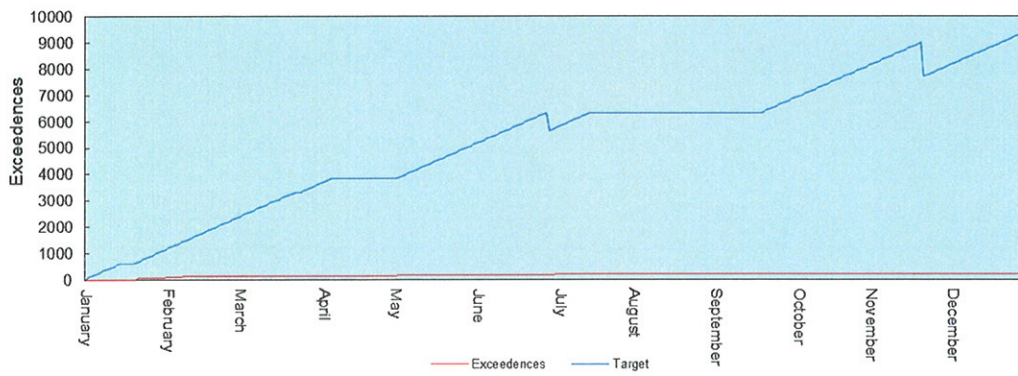
Air 100% Compliant
Water 100% Compliant
Land 100% Compliant



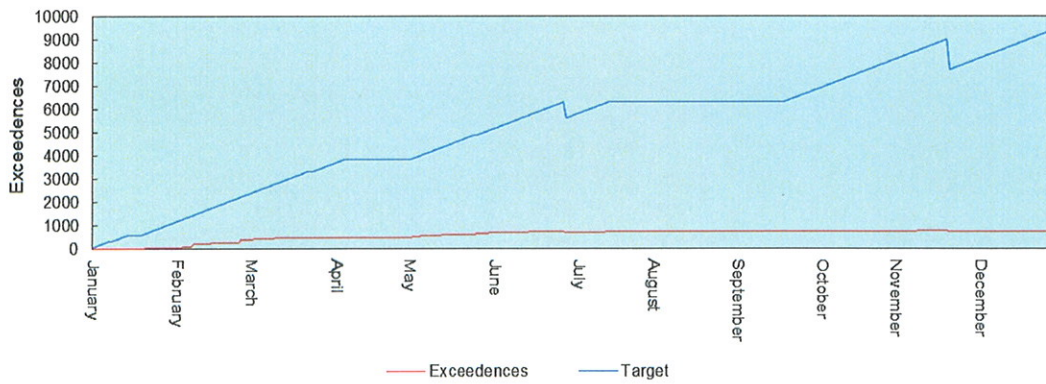
SOx Exceedences YTD



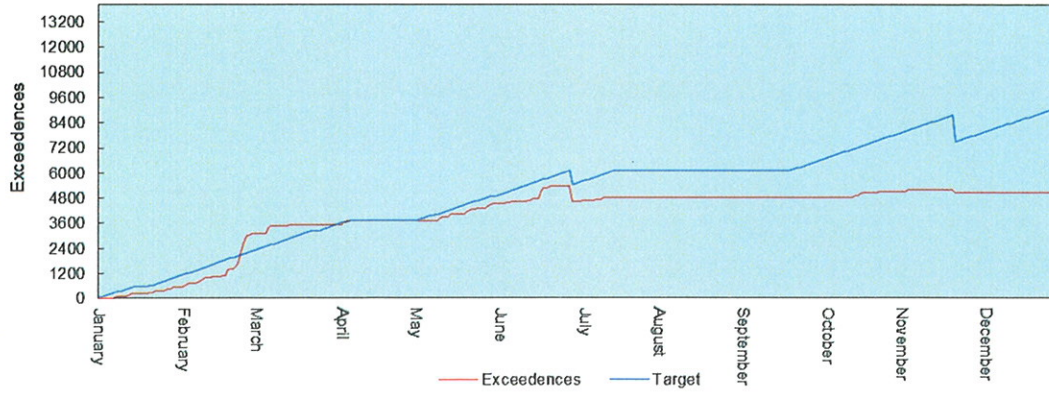
TOC Exceedences YTD



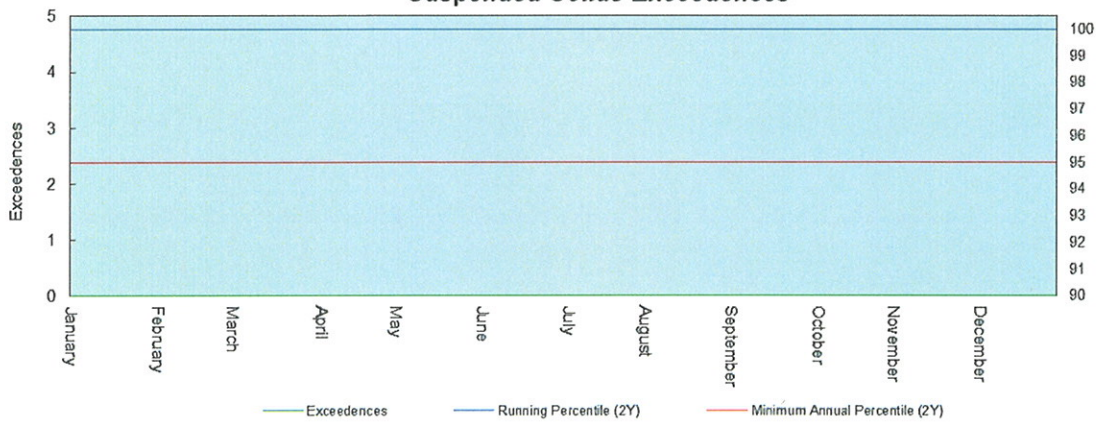
Dust Exceedences YTD



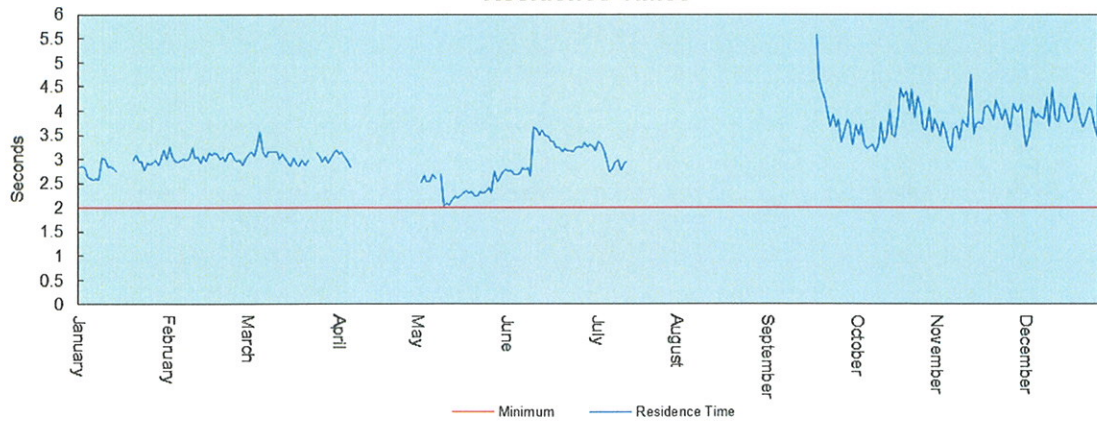
NOx Exceedences YTD



Suspended Solids Exceedences



Residence Times



Fugitive Releases

No fugitive release during period

Waste Disposal/Recovery

| Material | EWIC Code | Classification | Q1 Tonnage | Q2 Tonnage | Q3 Tonnage | Q4 Tonnage | Total Tonnage | Kg/Tonne Waste |
|-----------------------------|-----------|----------------|---------------|---------------|---------------|---------------|------------------|----------------|
| Refractory Rubble | 16 11 06 | D01 | 0 | 227.3 | 404.36 | 0 | 631.66 | 11.03 |
| Kiln Slag | 19 01 12 | D01 | 1120.9 | 770.83 | 182.96 | 1048.22 | 3122.91 | 54.55 |
| ETP Filter Cake | 19 02 06 | D01 | 2144.26 | 1904.75 | 685.58 | 2627.8 | 7362.39 | 128.61 |
| General Industrial Waste | 20 03 01 | D01 | 13.93 | 21.64 | 21.57 | 20.87 | 78.01 | 1.36 |
| Spent Lime | 19 01 07 | D15 | 0 | 1.8 | 1.58 | 0 | 3.38 | |
| Spent Lime | 10 01 18 | D15 | 0 | 4.74 | 0 | 0 | 4.74 | |
| Wooden Pallets | 15 01 03 | R03 | 176.02 | 123.2 | 33.84 | 101.22 | 434.28 | |
| Cardboard | 20 01 01 | R03 | 2.56 | 3.46 | 1.78 | 20.3 | 28.1 | |
| Ferrous Metal (engineering) | 16 01 17 | R04 | 23.66 | 16.37 | 16.37 | 14.37 | 70.77 | |
| Non Ferrous Metal | 16 01 18 | R04 | 0 | 0.74 | 7.55 | 6.33 | 14.62 | |
| Mixed recyclates | 20 03 01 | R05 | 2.18 | 0.52 | 8.14 | 13.04 | 23.88 | |
| Waste Oil | 11 01 14 | R13 | 0.02 | 0.02 | 0.04 | 0.05 | 0.13 | |
| Steel/I | 17 04 05 | R04 | 2.76 | 0 | 0 | 0 | 2.76 | |
| Kiln Metal | 17 04 07 | R04 | 0 | 118.92 | 6.6 | 10 | 135.52 | |



D C Smith
Technical Manager
31/01/19

VEOLIA HIGH TEMPERATURE INCINERATION PLANT

PERMIT No. BS5193IE

Annual Report 2018

The information shown in this report is supplied to satisfy the requirements of Permit No. BS5193IE, Clauses 4.1.3 to 4.1.6.

Waste Inputs (tonnes)

| Waste Receipts | Q1 | Q2 | Q3 | Q4 | Totals |
|------------------------|-----------|----------|---------|---------|-----------------|
| Hazardous Waste | 15490.945 | 10948.9 | 4870.82 | 16031 | 47341.66 |
| Non Hazardous Waste | 475.315 | 275.212 | 86.438 | 386.64 | 1223.60 |
| Clinical Hazardous | 143.69 | 133.15 | 13.31 | 195.86 | 486.01 |
| Clinical Non Hazardous | 122.08 | 30.276 | 2.653 | 161.09 | 316.10 |
| TFS | 2146.02 | 1191.21 | 650.54 | 2150 | 6137.75 |
| LLW | 203.69 | 299.58 | 105.73 | 795.82 | 1404.82 |
| Quarter Totals | 18581.74 | 12878.30 | 5729.49 | 19720.4 | 56909.94 |

Waste Incinerated

Liquids = 45059.96 tonnes

Solids = 11748.88 tonnes

Gas = 438.40 tonnes

Total = 57247.24 tonnes

Operating Hours

| | |
|-------------------|------------|
| Available | 8760 hours |
| Burning Waste | 6190 hours |
| Planned Outages | 1776 hours |
| Unplanned Outages | 794 hours |

Water Usage

| | |
|-----------------------------|----------------------|
| Abstraction from River Gowy | 987,118 cubic metres |
| River Dee Non-Potable | 200,131 cubic metres |
| Towns | 28,317 cubic metres |

Water Discharge

| | |
|----------------------|----------------------|
| Discharge to Estuary | 974,420 cubic metres |
|----------------------|----------------------|

Energy Usage

| | | |
|------------------------|----------------|------------------------------------|
| Fuel Oil (Non Process) | 369.84 tonnes | |
| Fuel oil (Process) | 403.81 tonnes | 7.05 kg/tonne waste incinerated |
| Electrical energy | 14,635,052 kWh | 255.65 kWh/tonne waste incinerated |

Lime Consumption

| | | |
|---------------|----------------|----------------------------------|
| Quicklime | 2449.06 tonnes | 42.78 kg/tonne waste incinerated |
| Hydrated lime | 423.76 tonnes | 7.40 kg/tonne waste incinerated |

Activated Carbon Consumption

N/A

Caustic

| | | |
|----------------------|----------------|----------------------------------|
| 32% Sodium Hydroxide | 3186.71 tonnes | 55.67 kg/tonne waste incinerated |
|----------------------|----------------|----------------------------------|

Urea

| | | |
|--------------|---------------|---------------------------------|
| 40% Solution | 415.27 tonnes | 7.25 kg/tonne waste incinerated |
|--------------|---------------|---------------------------------|

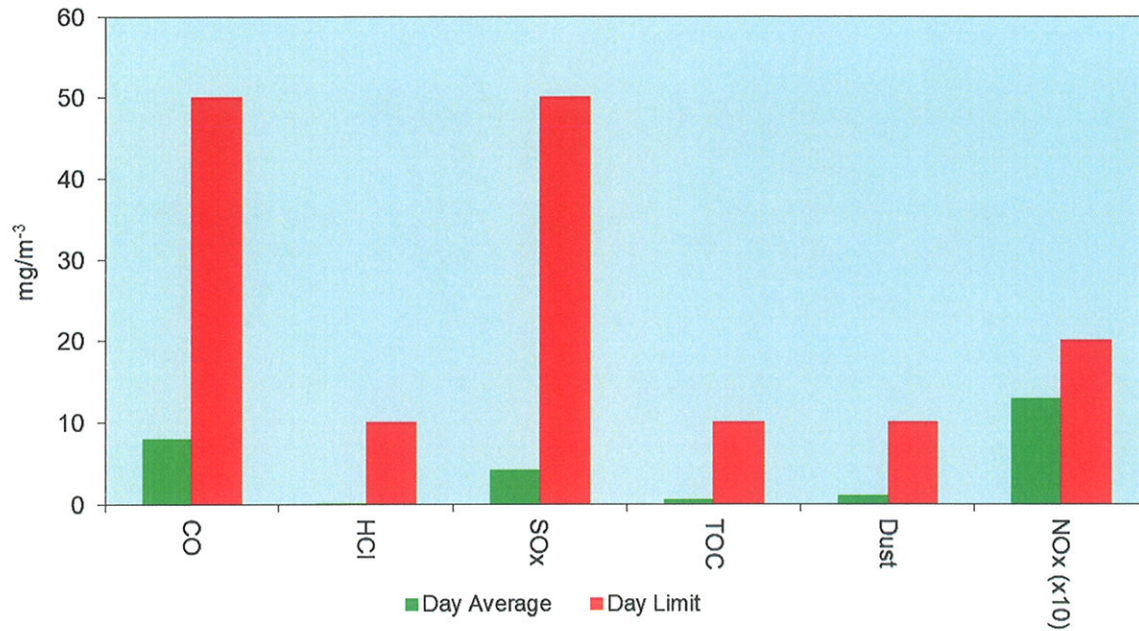
Sodium Hydrosulphide (Hg abatement)

| | | |
|--------------|---------------|---------------------------------|
| 40% Solution | 151.33 tonnes | 2.64 kg/tonne waste incinerated |
|--------------|---------------|---------------------------------|

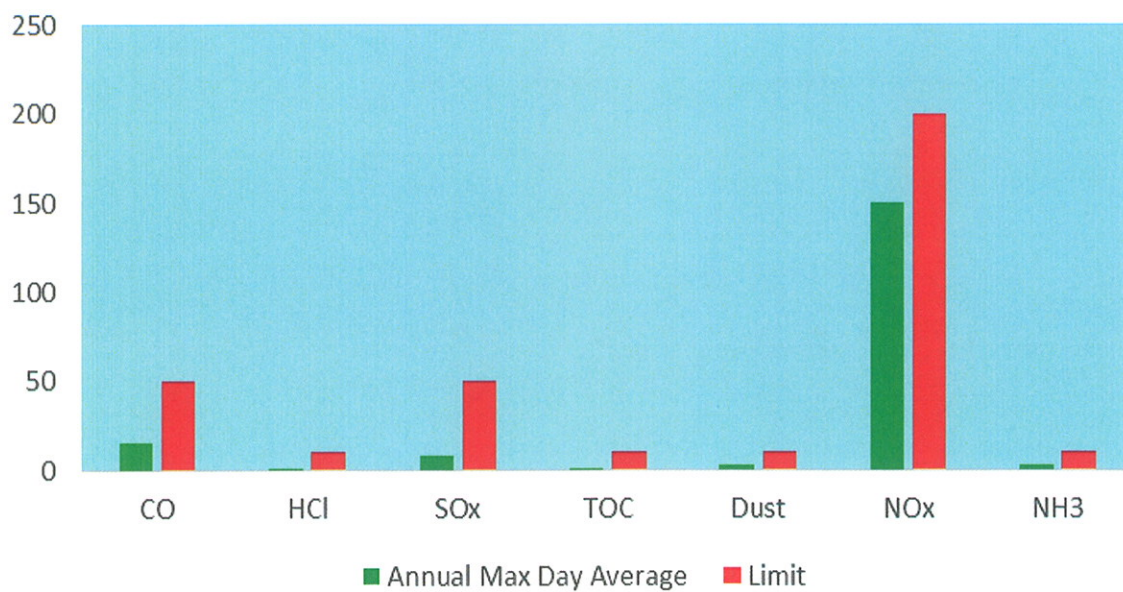
CEMS

WID compliant. No significant downtime other than routine quarterly service.

Annual Emissions Data 2018

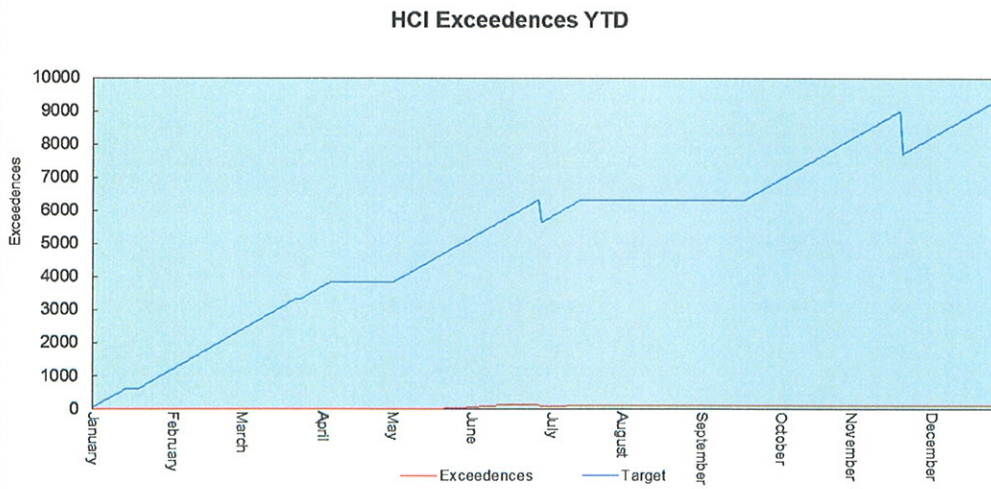
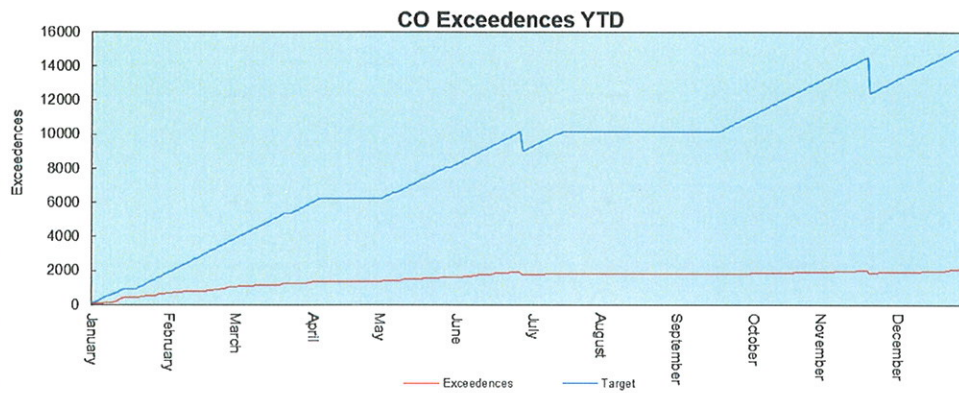


Annual Emissions- Average Daily Maximums

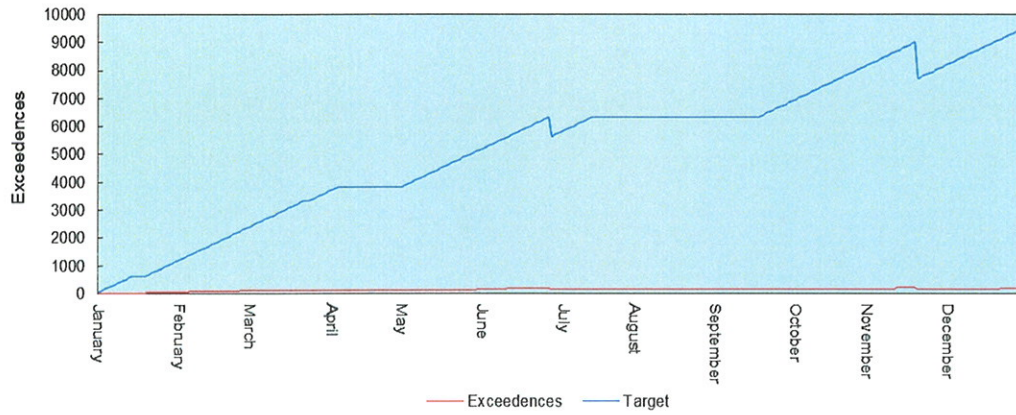


Plant Performance Against WID

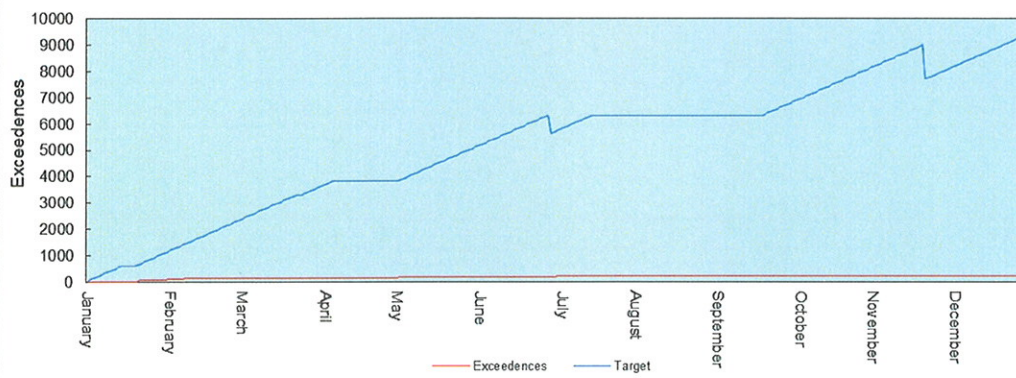
Air 100% Compliant
Water 100% Compliant
Land 100% Compliant



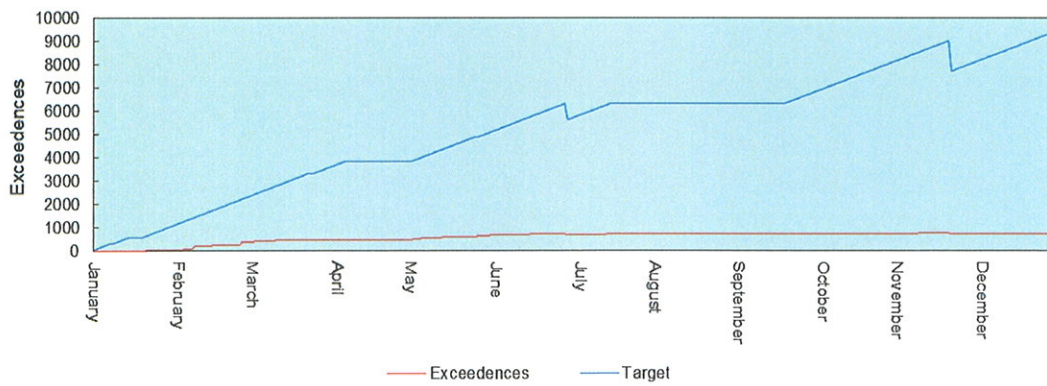
SOx Exceedences YTD



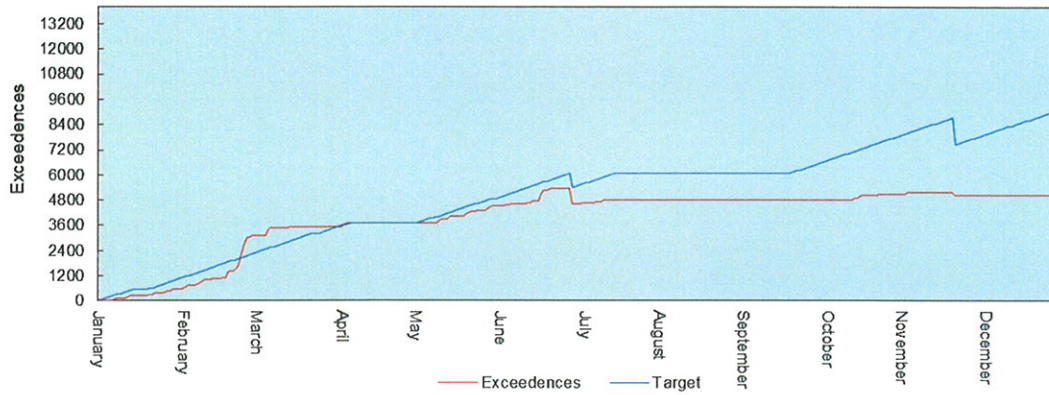
TOC Exceedences YTD



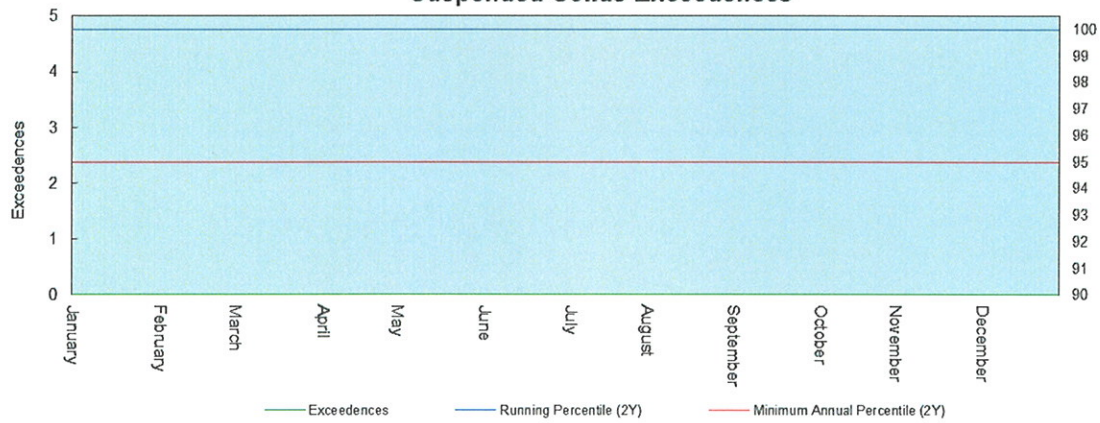
Dust Exceedences YTD



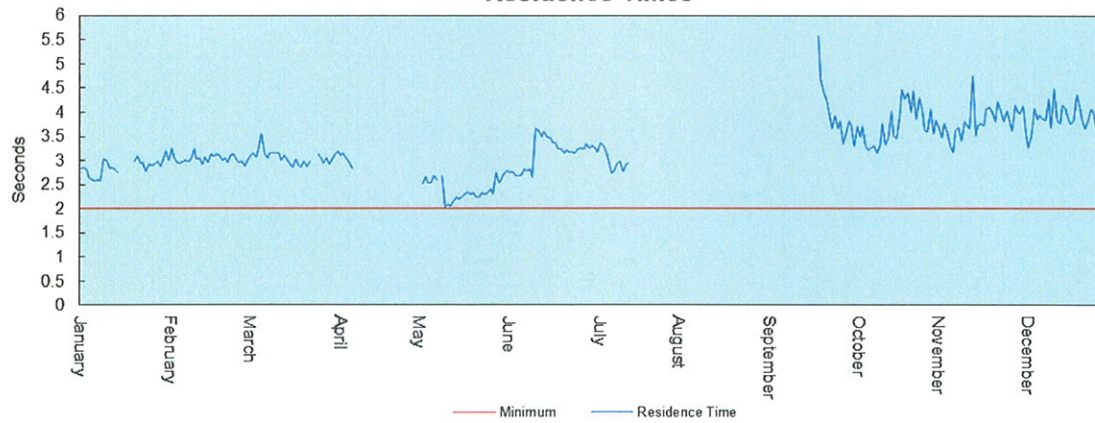
NOx Exceedences YTD



Suspended Solids Exceedences



Residence Times



Fugitive Releases

No fugitive release during period

Waste Disposal/Recovery

| Material | EWC Code | Classification | Q1 Tonnage | Q2 Tonnage | Q3 Tonnage | Q4 Tonnage | Total Tonnage | Kg/Tonne Waste |
|-----------------------------|----------|----------------|---------------|---------------|---------------|---------------|------------------|----------------|
| Refractory Rubble | 16 11 06 | D01 | 0 | 227.3 | 404.36 | 0 | 631.66 | 11.03 |
| Kiln Slag | 19 01 12 | D01 | 1120.9 | 770.83 | 182.96 | 1048.22 | 3122.91 | 54.55 |
| ETP Filter Cake | 19 02 06 | D01 | 2144.26 | 1904.75 | 685.58 | 2627.8 | 7362.39 | 128.61 |
| General Industrial Waste | 20 03 01 | D01 | 13.93 | 21.64 | 21.57 | 20.87 | 78.01 | 1.36 |
| Spent Lime | 19 01 07 | D15 | 0 | 1.8 | 1.58 | 0 | 3.38 | |
| Spent Lime | 10 01 18 | D15 | 0 | 4.74 | 0 | 0 | 4.74 | |
| Wooden Pallets | 15 01 03 | R03 | 176.02 | 123.2 | 33.84 | 101.22 | 434.28 | |
| Cardboard | 20 01 01 | R03 | 2.56 | 3.46 | 1.78 | 20.3 | 28.1 | |
| Ferrous Metal (engineering) | 16 01 17 | R04 | 23.66 | 16.37 | 16.37 | 14.37 | 70.77 | |
| Non Ferrous Metal | 16 01 18 | R04 | 0 | 0.74 | 7.55 | 6.33 | 14.62 | |
| Mixed recyclates | 20 03 01 | R05 | 2.18 | 0.52 | 8.14 | 13.04 | 23.88 | |
| Waste Oil | 11 01 14 | R13 | 0.02 | 0.02 | 0.04 | 0.05 | 0.13 | |
| Steel/I | 17 04 05 | R04 | 2.76 | 0 | 0 | 0 | 2.76 | |
| Kiln Metal | 17 04 07 | R04 | 0 | 118.92 | 6.6 | 10 | 135.52 | |



D C Smith
Technical Manager
31/01/19