

# Annual performance report for: **Enviropower Ltd**

**Permit Number: EPR/XP3030XX**

**Year: 2019**

This report is required under the Industrial Emissions Directive's Article 55(2) requirements on reporting and public information on waste incineration plants and co-incineration plants, which require the operator to produce an annual report on the functioning and monitoring of the plant and make it available to the public.

## 1. Introduction

Name and address of plant	Enviropower Ltd Units 1-2, 37 Chartwell Road Lancing Business Park BN15 8TU
Description of waste input	Non-recyclable industrial, commercial, construction & demolition waste, RDF and waste wood
Operator contact details if members of the public have any questions	01903 768239

## 2. Plant description

The main purpose of the activity at this facility is to recover energy in the form of electricity from the non-recyclable fraction of industrial, commercial, construction & demolition waste. The facility can generate circa 5MW of electrical power, exporting enough to the National Grid to supply approximately 8,000 local homes. The permit covers the site and process including waste reception, storage and off site transfer of residues, emissions to water, air and land, recording and monitoring conditions.

The facility consists of two lines of combustion equipment capable of processing a combined total of approximately 8 tonnes of waste per hour, allowing for a permitted throughput of 75,000 tonnes per year. Throughput is dependent on two main factors; the actual operating hours per annum and the calorific value of the fuel, the average being in the order of 15MJ/Kg. A Heat Recovery Steam Generator captures the heat from the combustion to produce steam which drives two steam turbines and a generator. The waste gases are cleaned before being released via a 16 metre stack.

Fine particulate matter and air pollution control (APC) residues are removed from the flue gas stream by fabric filter and consigned to specialist treatment works.

### 3. Summary of Plant Operation

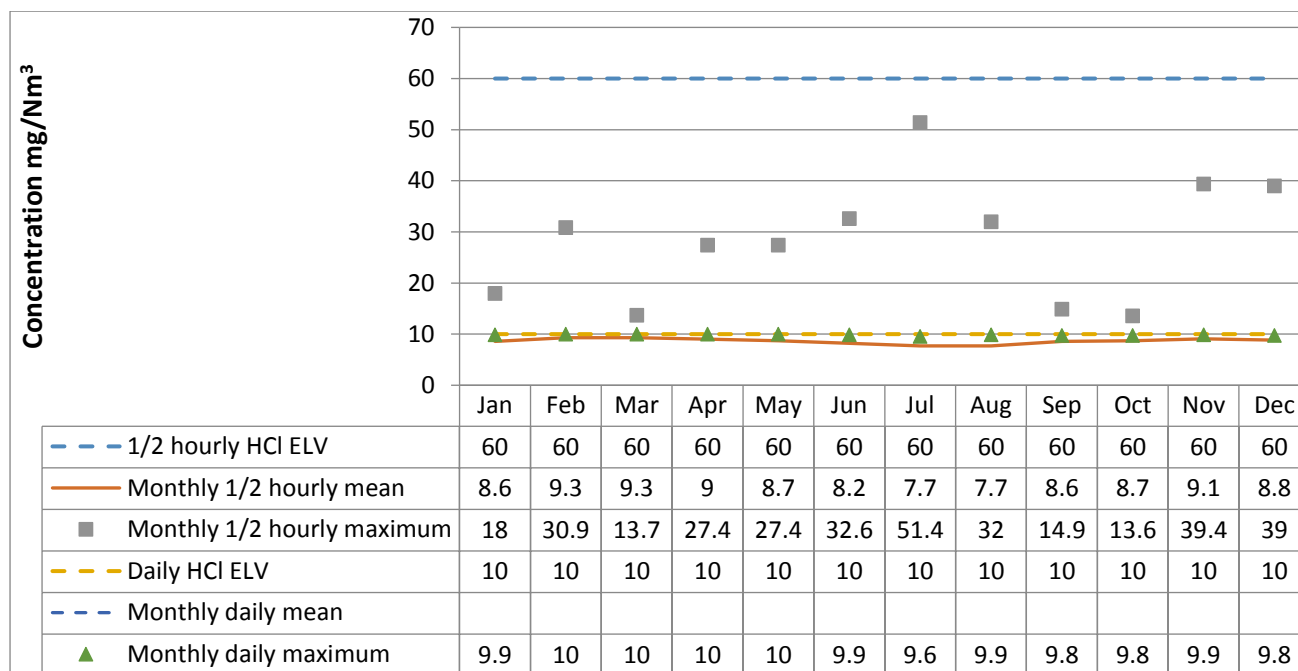
Refuse-derived fuel received	57,012 tonnes
Other waste received (trommel fines / sawdust)	2,617 tonnes
Total waste received	59,629 tonnes
Total plant operational hours	7,688 hours
Total hours of “abnormal operation” (see permit for definition)	None
Total quantity of incinerator bottom ash (IBA) produced	12,365 tonnes
Disposal or recovery route for IBA	Recycled – aggregate substitute
Did any batches of IBA test as hazardous? If yes, state quantity	None
Total quantity of air pollution control (APC) residues produced	3,442 tonnes
Disposal or recovery route for APC residues	Hazardous landfill
Total electricity generated for export to the National Grid	19,459,600 MWh

## 4. Summary of Plant Emissions

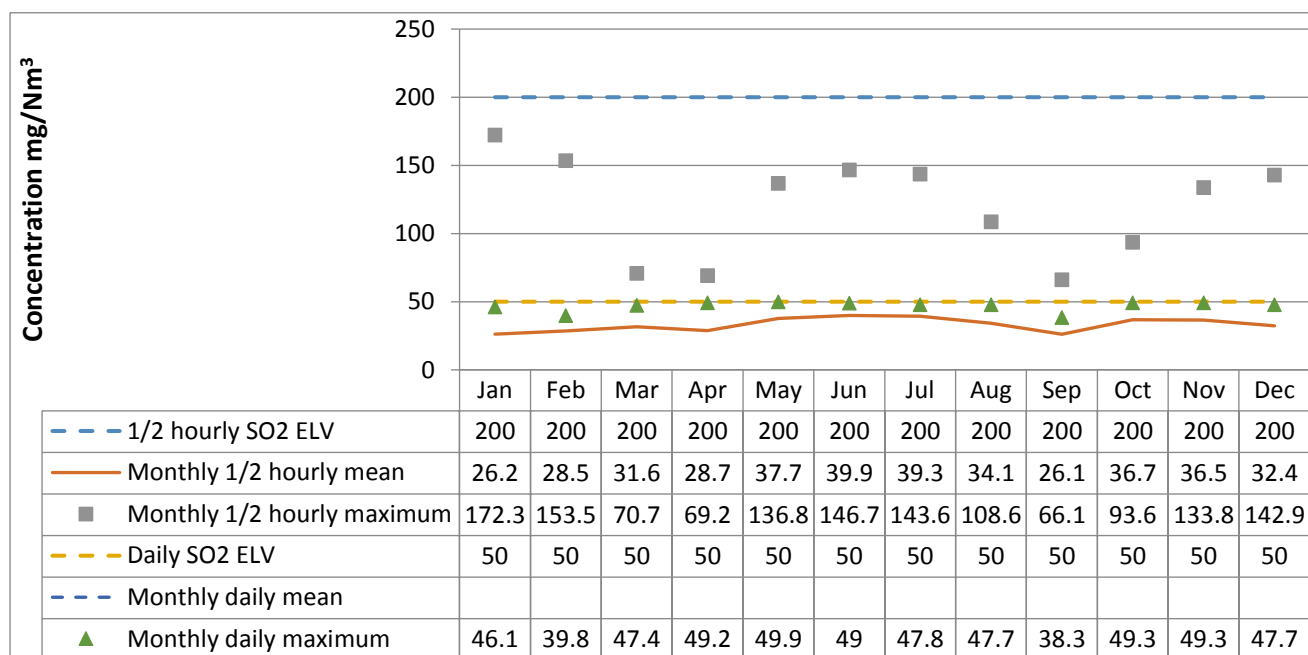
### 4.1 Summary of continuous emissions monitoring results for emissions to air

The following charts show the performance of the plant against its emission limit values (ELVs) for substances that are continuously monitored.

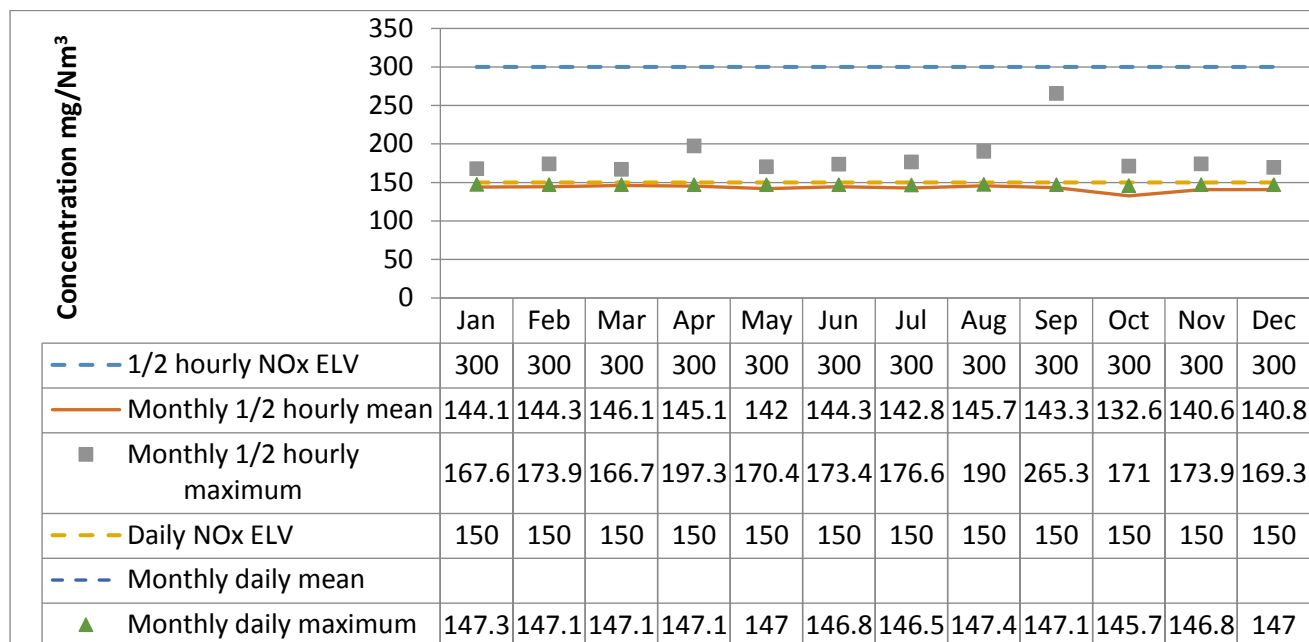
Line A - Hydrogen chloride



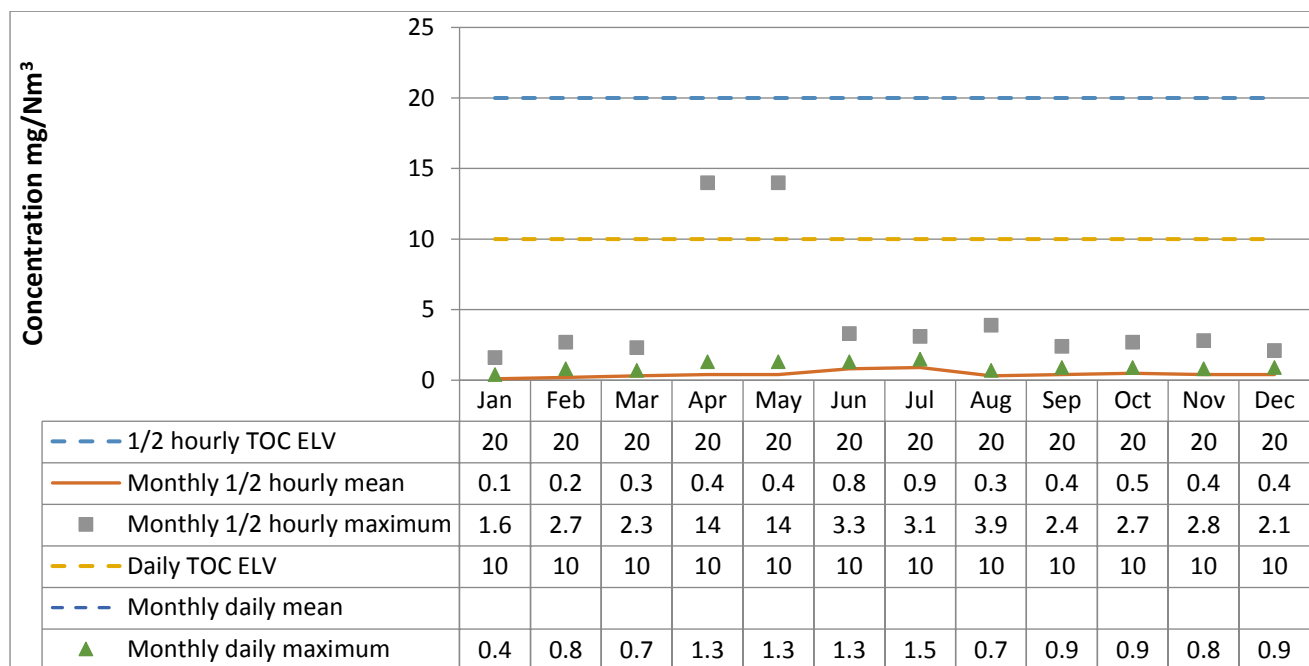
Line A – Sulphur dioxide



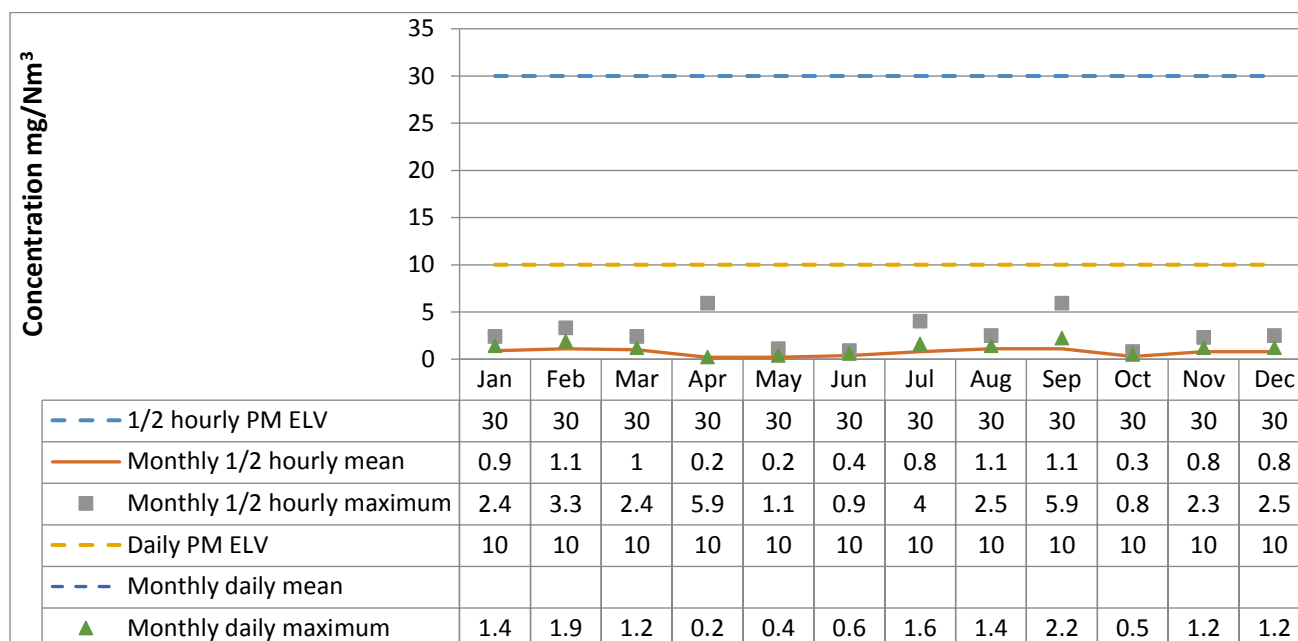
## Line A – Oxides of nitrogen



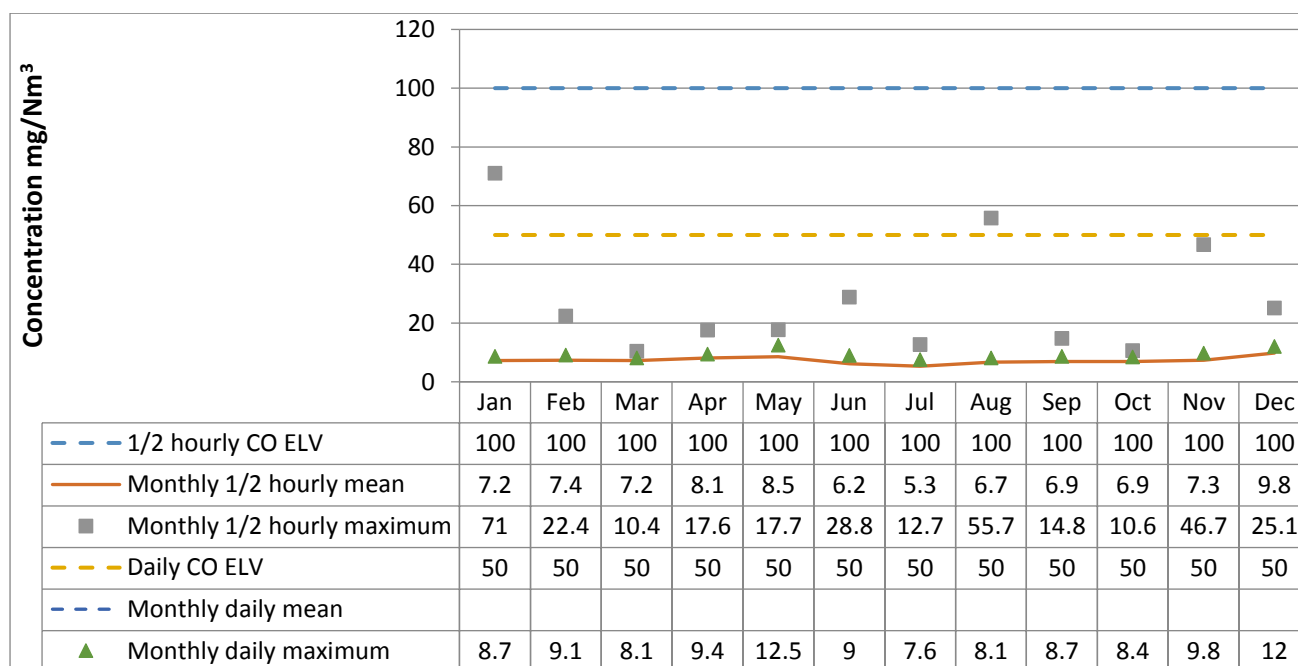
## Line A – Total organic carbon



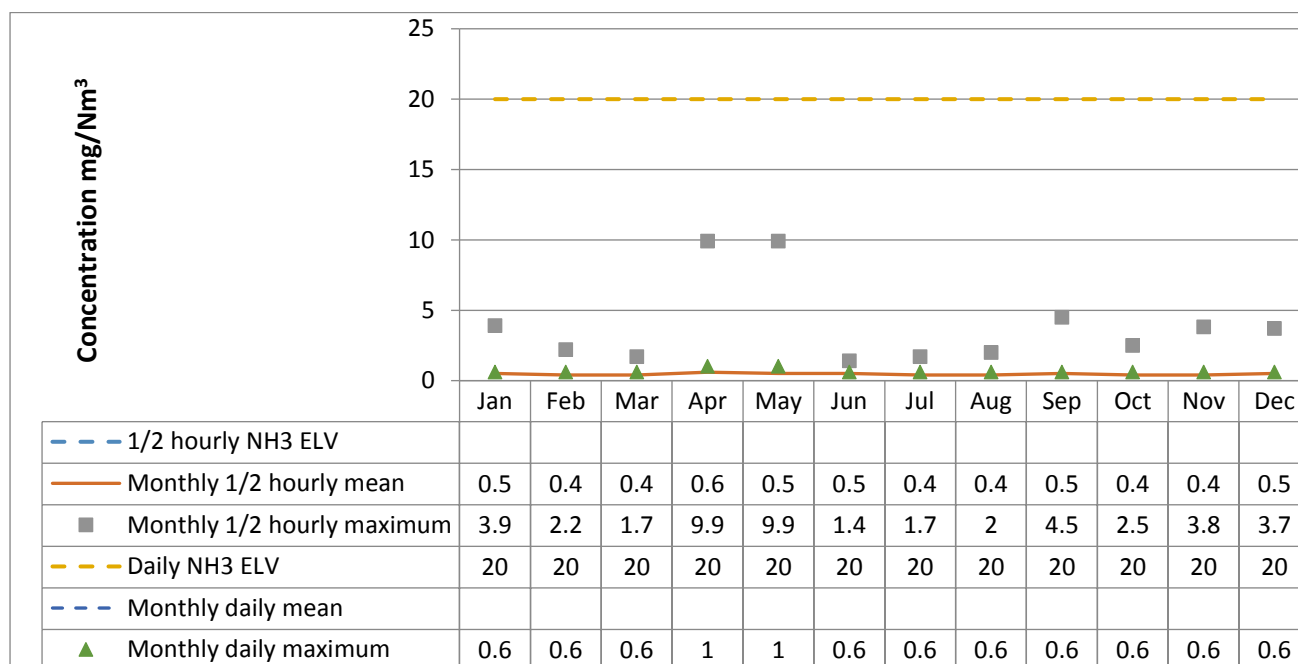
## Line A – Particulates



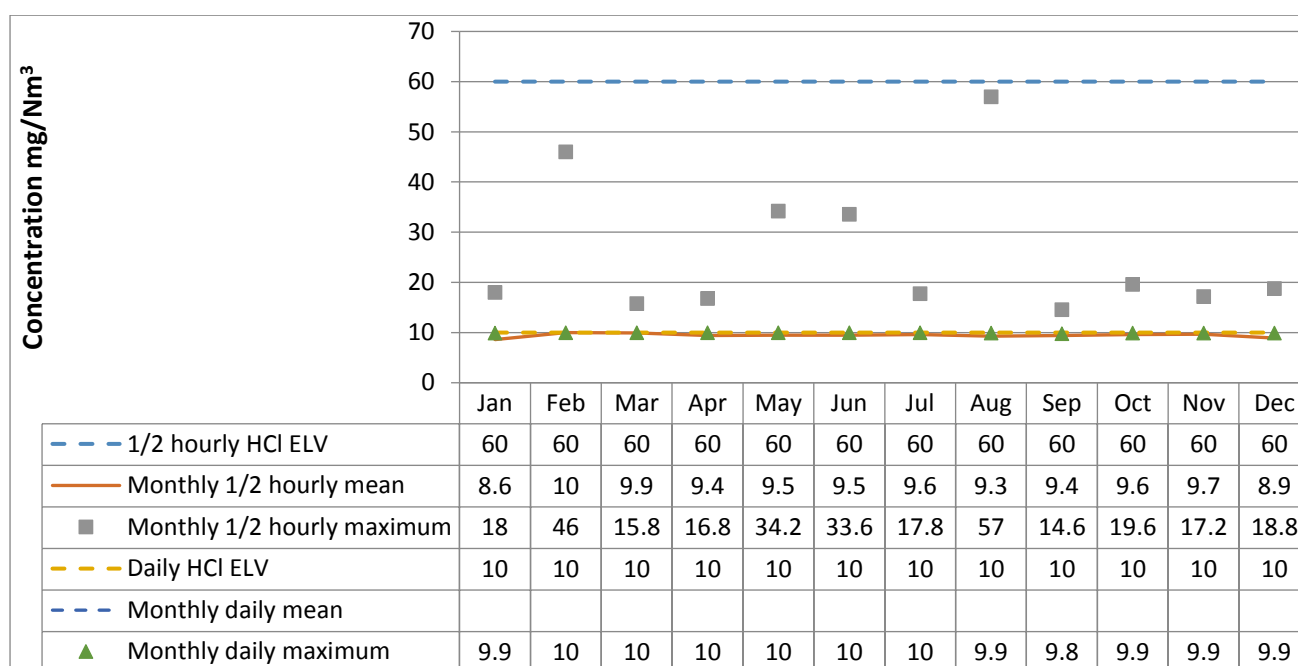
## Line A – Carbon monoxide



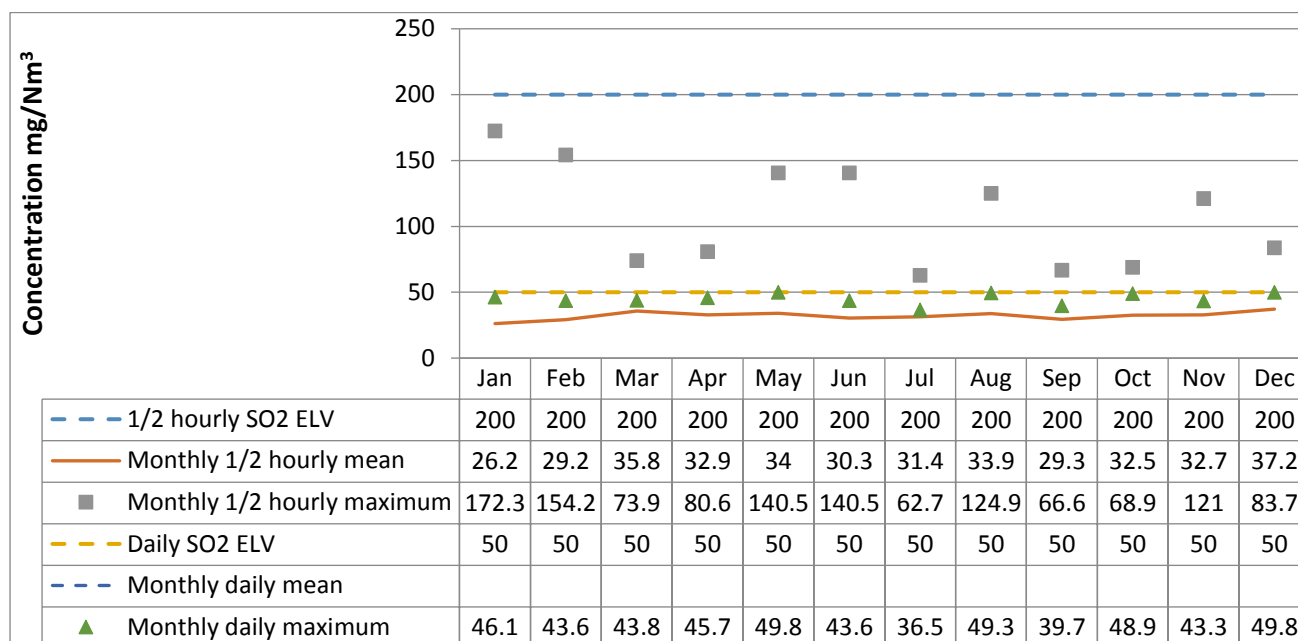
## Line A – Ammonia



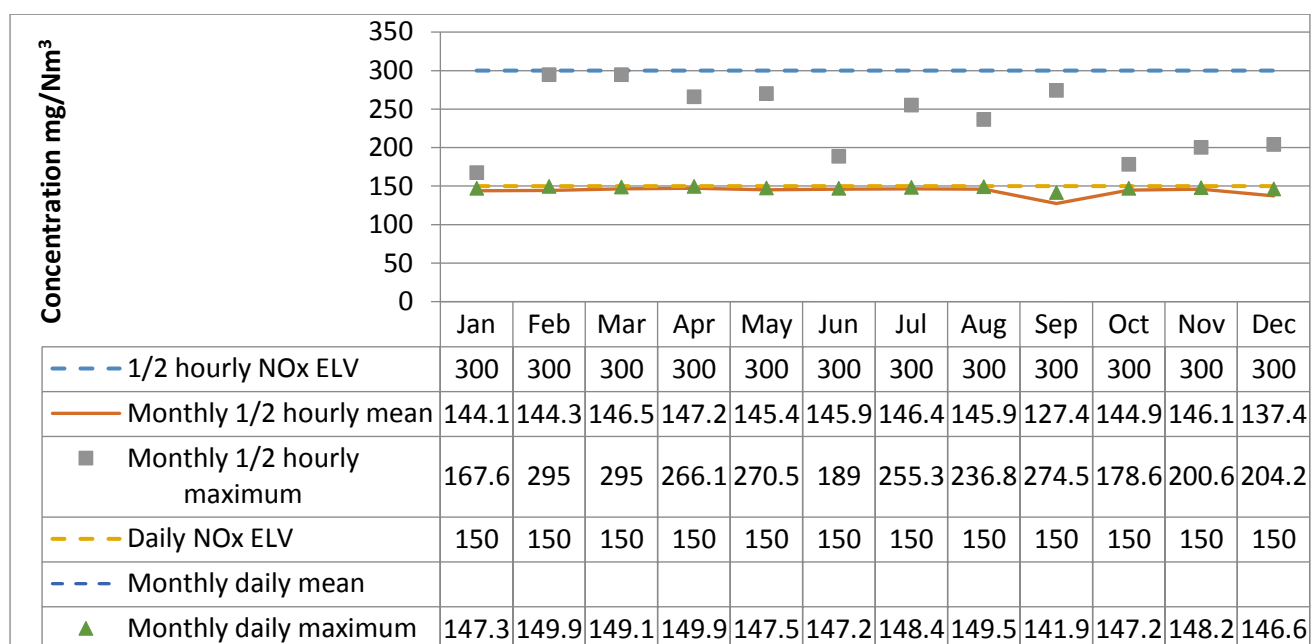
## Line B Hydrogen chloride



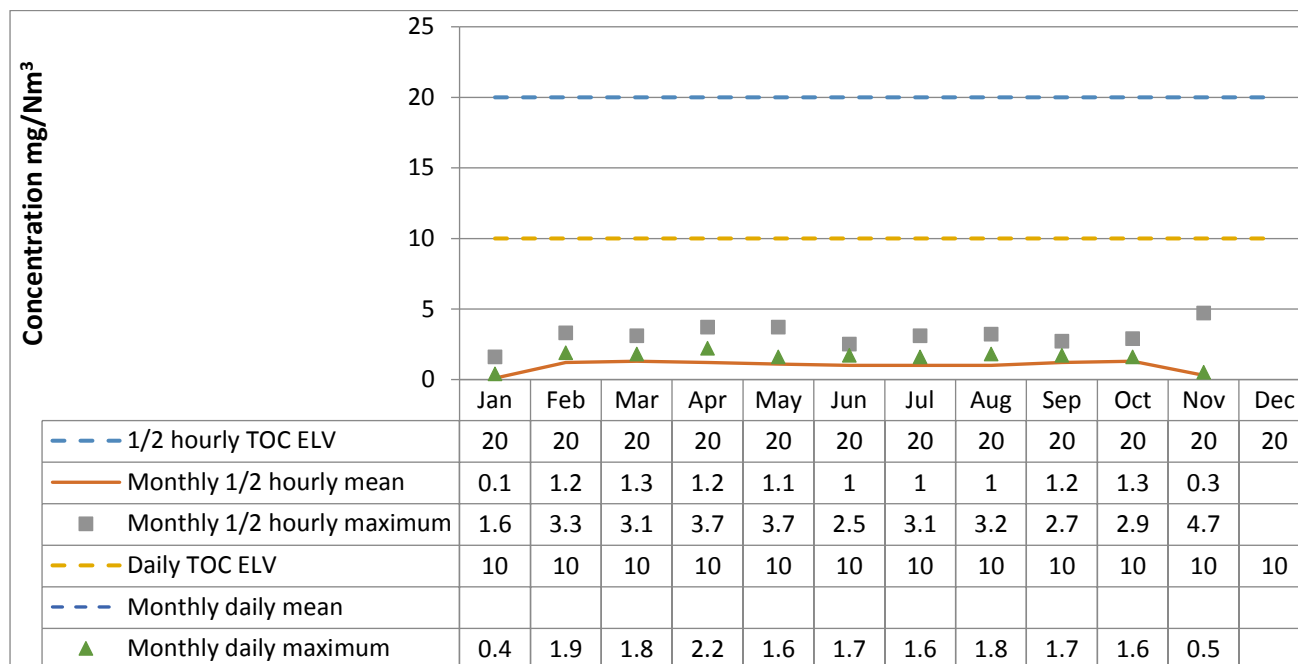
## Line B – Sulphur dioxide



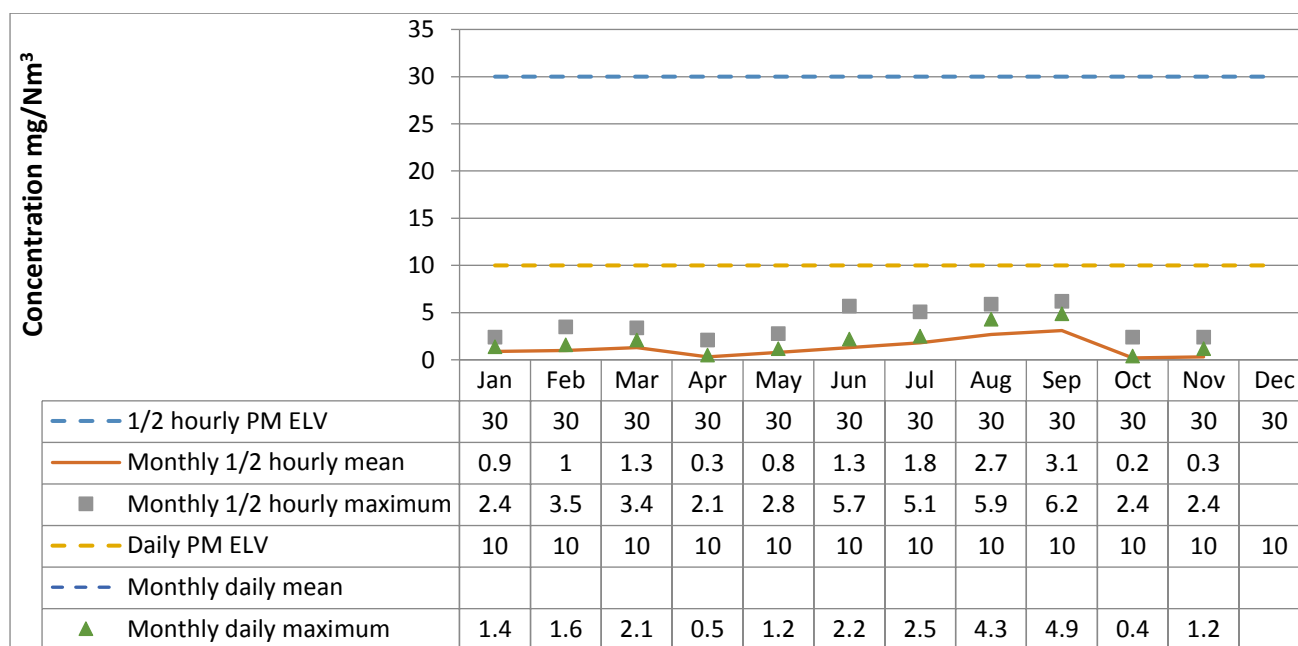
## Line B – Oxides of nitrogen



## Line B – Total organic carbon

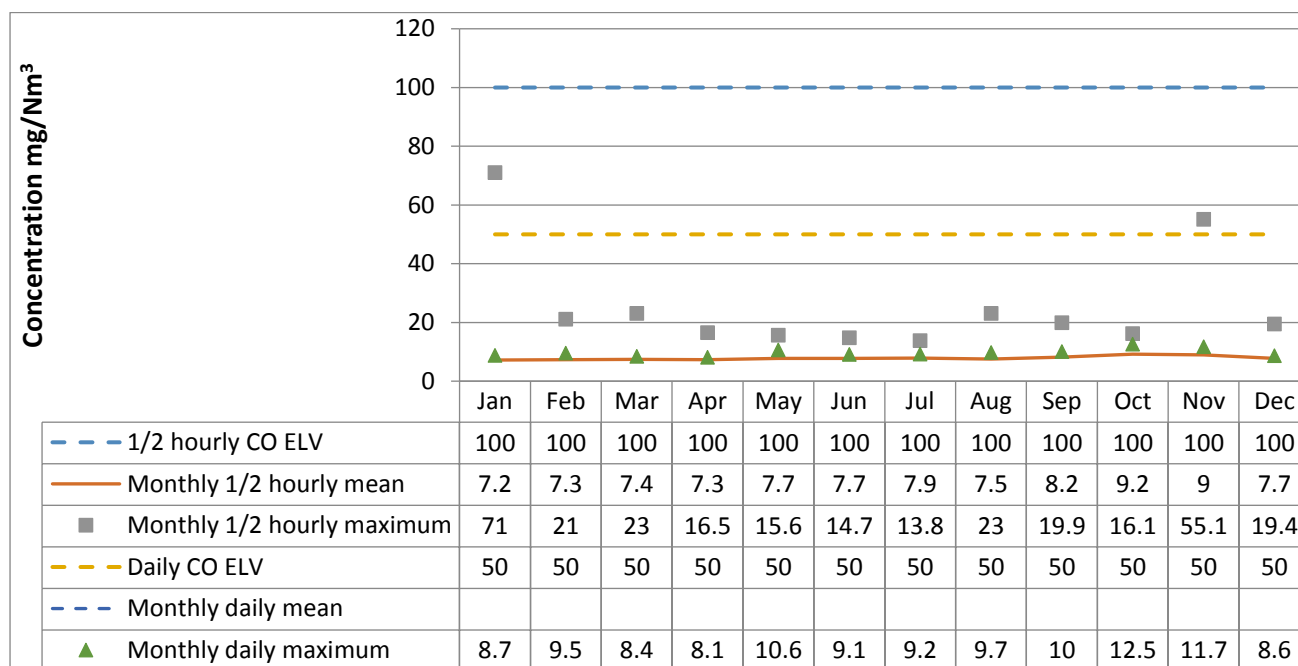


## Line B – Particulates

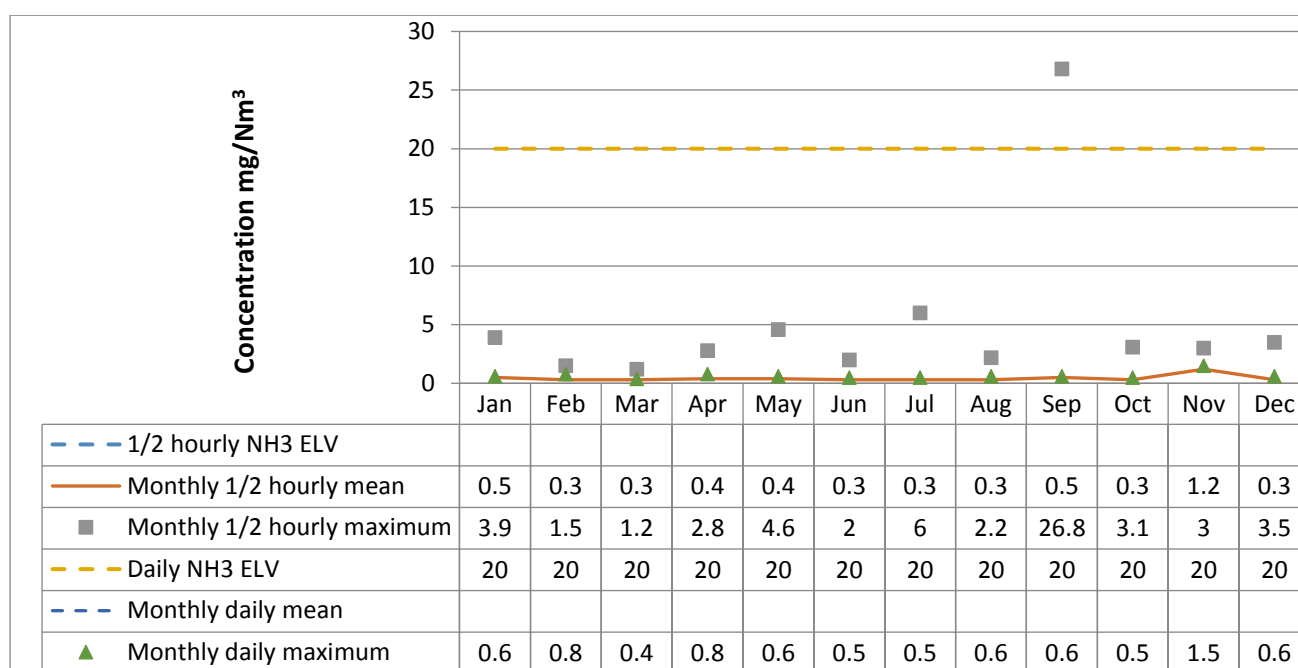




## Line B – Carbon monoxide



## Line B – Ammonia



## 4.2 Summary of periodic monitoring results for emissions to air

The table below shows the results of periodically monitored substances.

Substance	Emission limit value	Results			
		24/04/18 Line A	24/04/18 Line B	01/10/18 Line A	01/10/18 Line B
Mercury and its compounds	0.05 mg/m <sup>3</sup>	0.0000 mg/m <sup>3</sup>	0.0006 mg/m <sup>3</sup>	0.0018 mg/m <sup>3</sup>	0.0015 mg/m <sup>3</sup>
Cadmium & thallium and their compounds (total)	0.05 mg/m <sup>3</sup>	0.0006 mg/m <sup>3</sup>	0.0005 mg/m <sup>3</sup>	0.0006 mg/m <sup>3</sup>	0.0024 mg/m <sup>3</sup>
Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/m <sup>3</sup>	0.0125 mg/m <sup>3</sup>	0.0077 mg/m <sup>3</sup>	0.1185 mg/m <sup>3</sup>	0.0479 mg/m <sup>3</sup>
Dioxins and furans (I-TEQ)	0.1 ng/m <sup>3</sup>	0.1199* ng/m <sup>3</sup>	0.00965 ng/m <sup>3</sup>	0.0058 ng/m <sup>3</sup>	0.0088 ng/m <sup>3</sup>
Hydrogen Fluoride	1 mg/m <sup>3</sup>	0.3 mg/m <sup>3</sup>	0.4 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	0.9 mg/m <sup>3</sup>

\* With measured uncertainty of +/- 0.02905 ng/m<sup>3</sup> applied this is 0.09085 ng/m<sup>3</sup>

#### 4.3 Summary of monitoring results for emissions to water

There are no emissions to water from the process [other than clean surface water].

## 5. Summary of Permit Compliance

### 5.2 Summary of any notifications or non-compliances under the permit

No notifications in 2018

Date	Summary of notification or non-compliance	Reason	Measures taken to prevent reoccurrence
N/A	N/A	N/A	N/A

### 5.3 Summary of any complaints received and actions to taken to resolve them.

<b>Date of complaint</b>	<b>Summary of complaint</b>	<b>Reason for complaint including whether substantiated by the operator or the EA</b>	<b>If substantiated, measures to prevent reoccurrence</b>
28/02/18	Local resident could hear a humming noise and asked if this could be coming from the plant.	This was investigated and attributed to the AMC air handling unit. EA informed.	AMC air handling unit repaired.
10/05/18	There was a steam safety valve lift and a local business enquired about the noise.	There was a steam safety valve lift and a local business enquired about the noise.	Additional training with Senior Technicians on reseating of SRV's
02/09/18	A neighbouring business complained about dust	This was investigated and it was found that a fire door had been left open.	Ensure fire door is not left open.

## 6. Summary of plant improvements

<b>Summary of any permit improvement conditions that have been completed within the year and the resulting environmental benefits.</b>
None. All permit improvement conditions signed off as complete by the Environment Agency.
<b>Summary of any changes to the plant or operating techniques which required a variation to the permit and a summary of the resulting environmental impact.</b>

None

**Summary of any other improvements made to the plant or planned to be made and a summary of the resulting environmental benefits.**

In the early stages of 2018 the company was still recovering from a serious fire in the fuel prep area, which happened in June 2017. The new crane was not commissioned until April 2018, and from January to April 2018 the walking floors were fed manually via shovel.

At the same time as the crane was installed in April 2018, the remaining fire wall between the fuel store and fuel prep shed was installed. From April 2018, normal operations were resumed.

A revised Fire Prevention Plan, following version 3 of the Environment Agency's Fire Prevention Plan guidance, is in place, and was signed off by the Environment Agency in August 2018.