

## Annual performance report for: Severn Waste Services Limited.

Permit Number: **EPR/XP3935TX/V003**

Year: **2018**

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	EnviRecover Hartlebury Trading Estate Hartlebury Kidderminster Worcestershire DY10 4JD
Description of waste input	Non-hazardous municipal, commercial and industrial waste.
Operator contact details if members of the public have any questions	<a href="mailto:enquiries@severnwaste.co.uk">enquiries@severnwaste.co.uk</a>  Tel: 01905 761680

### 2. Plant description

EnviRecover recovers the energy contained in non-hazardous municipal, commercial and industrial waste and uses it to generate steam. The energy contained in the steam is converted into electricity in a turbo generator. Approximately 10% of the electricity generated is used to power the facility and the remaining 90% is exported to the National Grid. The installation includes waste receipt and storage, one waste combustion unit with associated waste heat boilers and exhaust gas abatements systems and all systems for controlling and monitoring the process.

### 3. Summary of Plant Operation

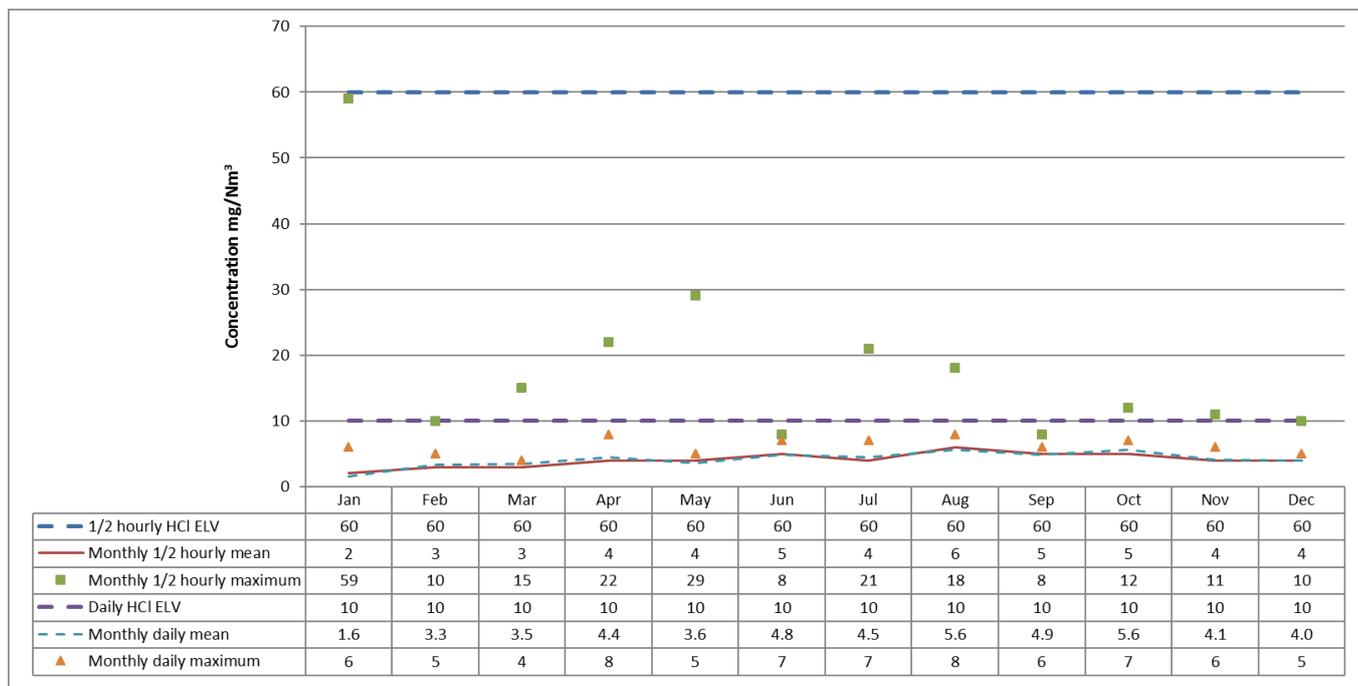
Municipal waste received	161,795 tonnes
Commercial and industrial waste received	38,267 tonnes
Total waste received	200,061 tonnes
Total plant operational hours	7,850 hours
Total hours of "abnormal operation" (see permit for definition)	None
Total quantity of incinerator bottom ash (IBA) produced	43,648 tonnes
Disposal or recovery route for IBA	R13
Did any batches of IBA test as hazardous? If yes, state quantity	None
Total quantity of air pollution control (APC) residues produced	6,562 tonnes
Disposal or recovery route for APC residues	R11 (99.5%), D1 (0.5%)
Total electricity generated for export to the National Grid	130,050 MWh

## 4. Summary of Plant Emissions

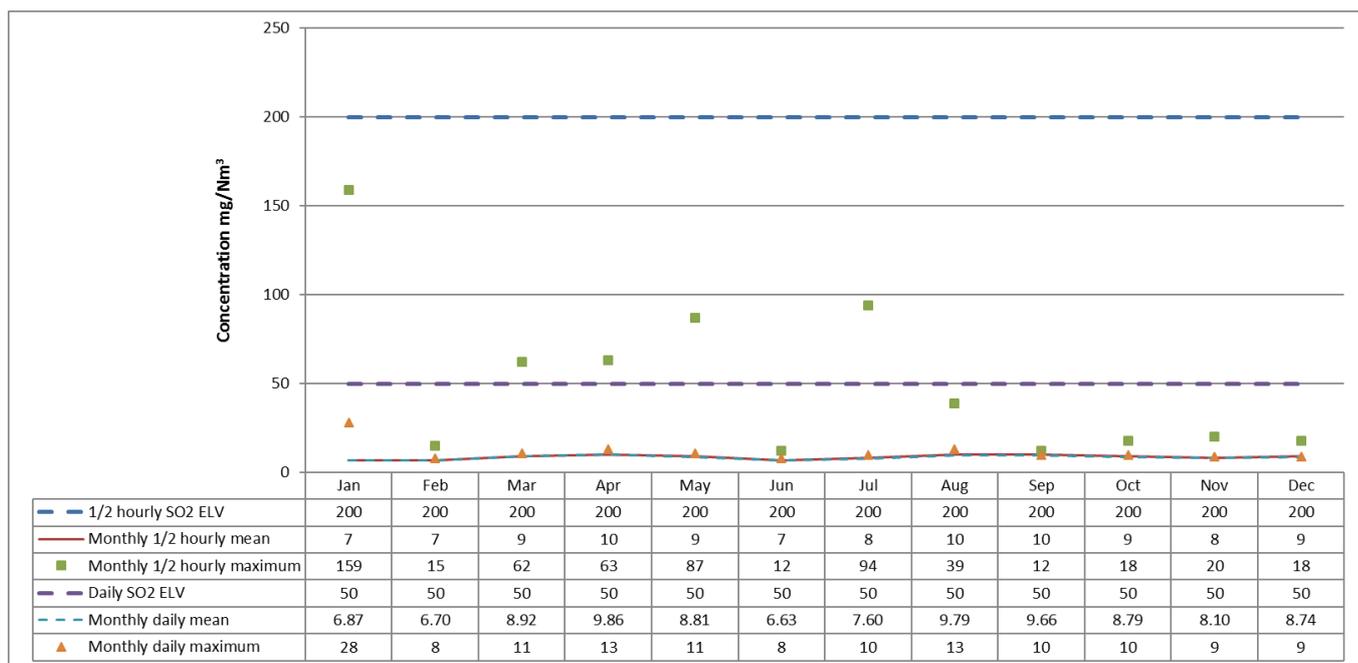
### 4.1 Summary of continuous emissions monitoring results for emissions to air

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

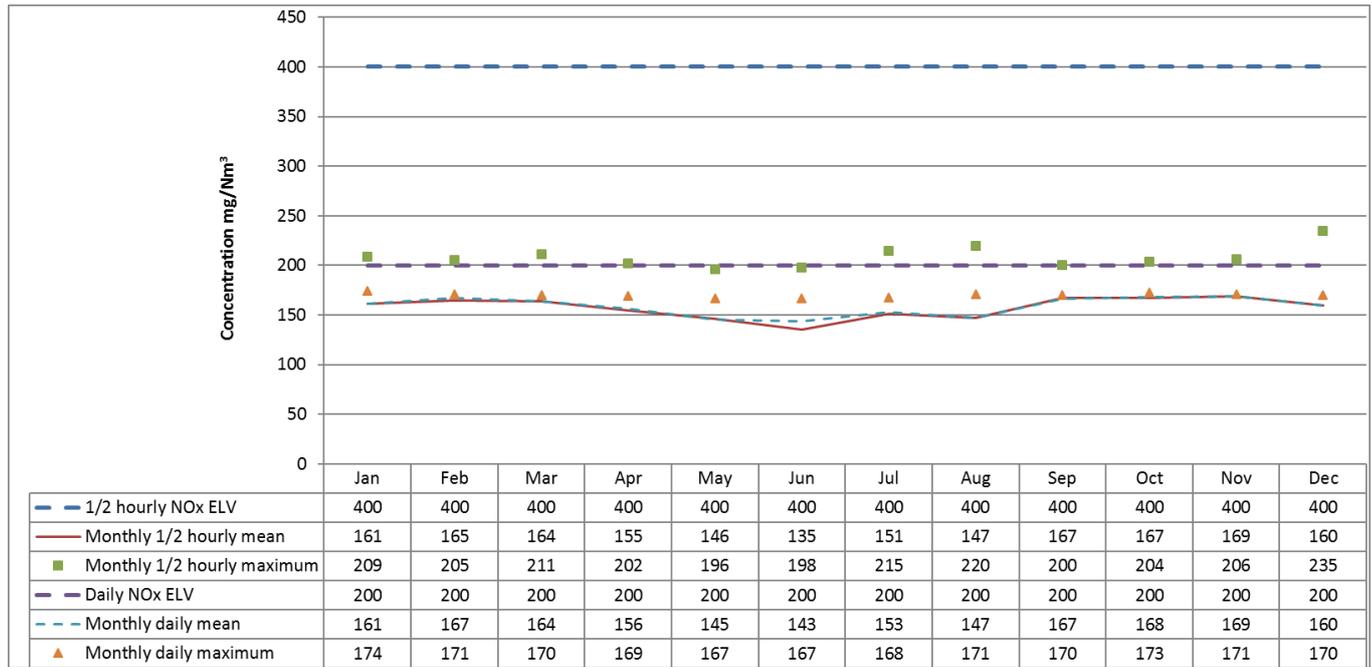
#### Hydrogen chloride



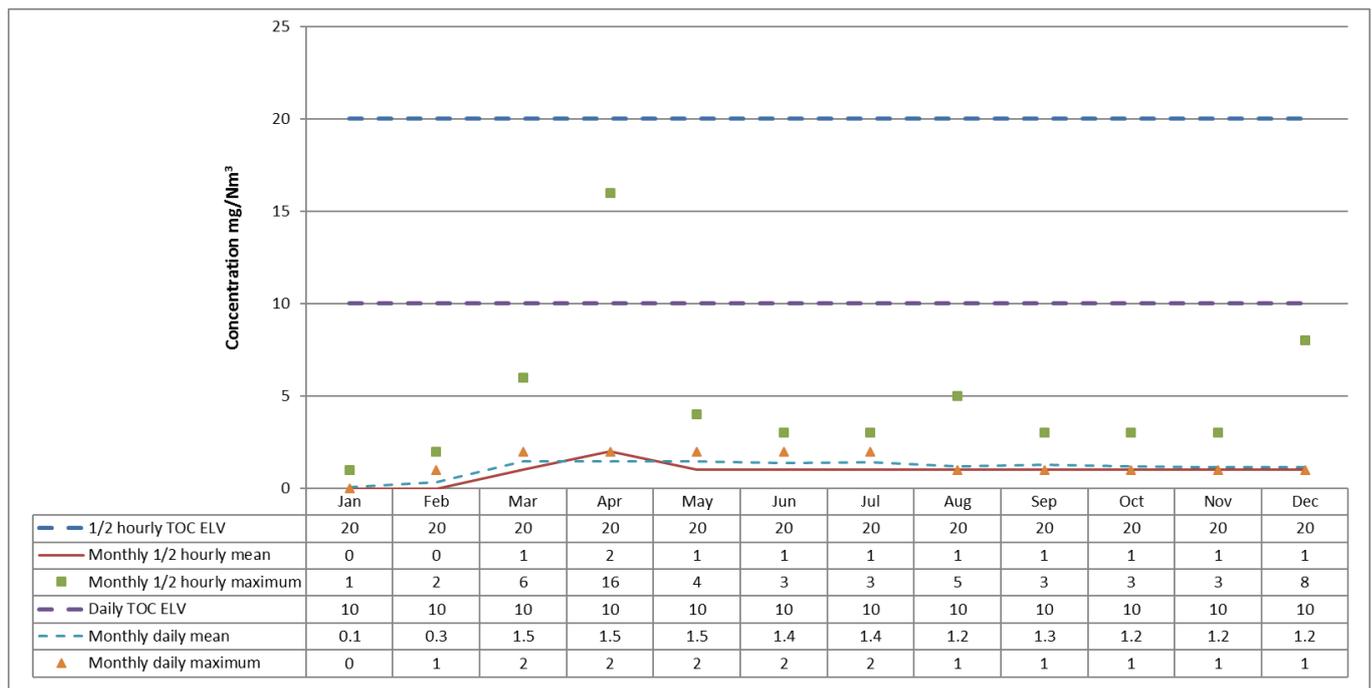
#### Sulphur dioxide



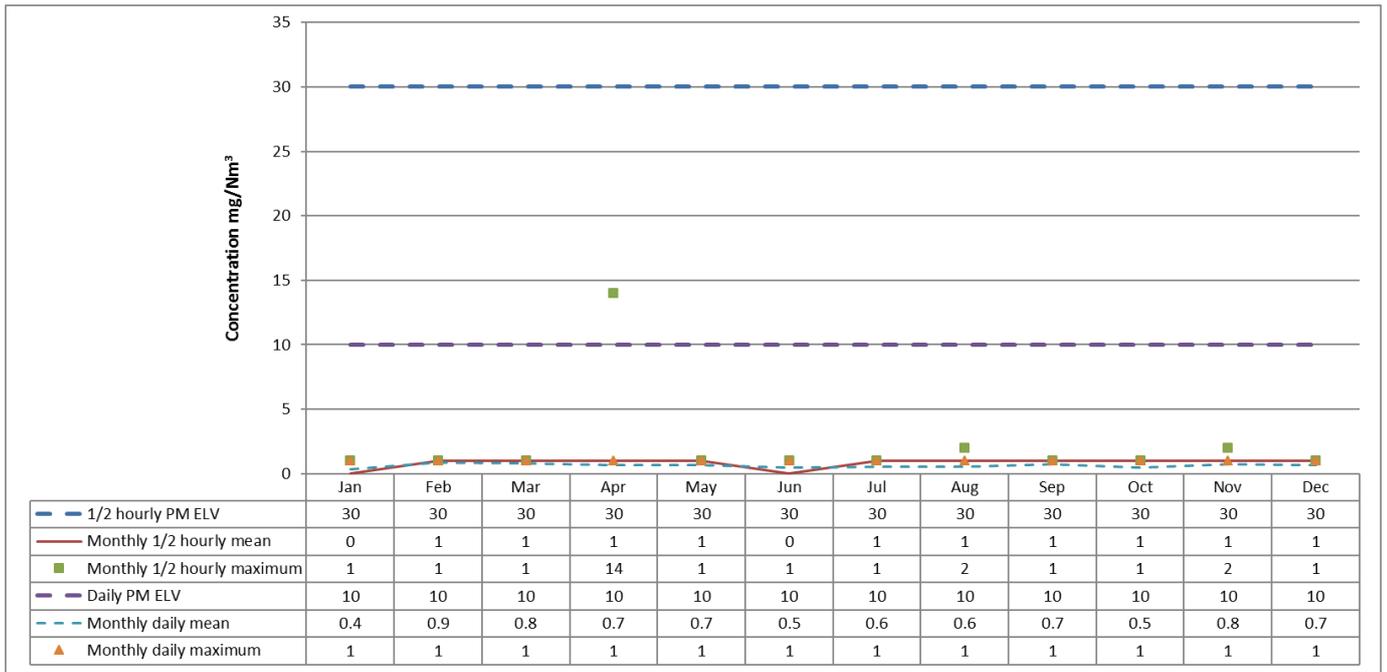
## Oxides of nitrogen



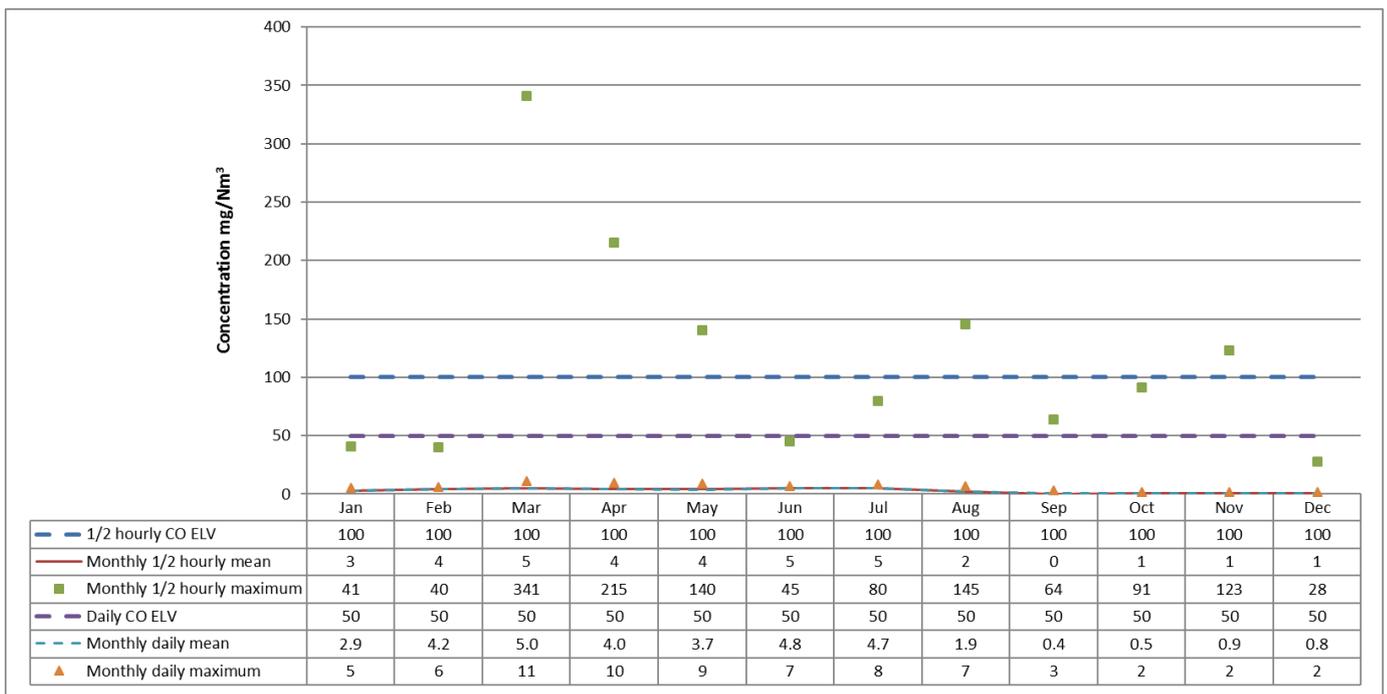
## Total organic carbon



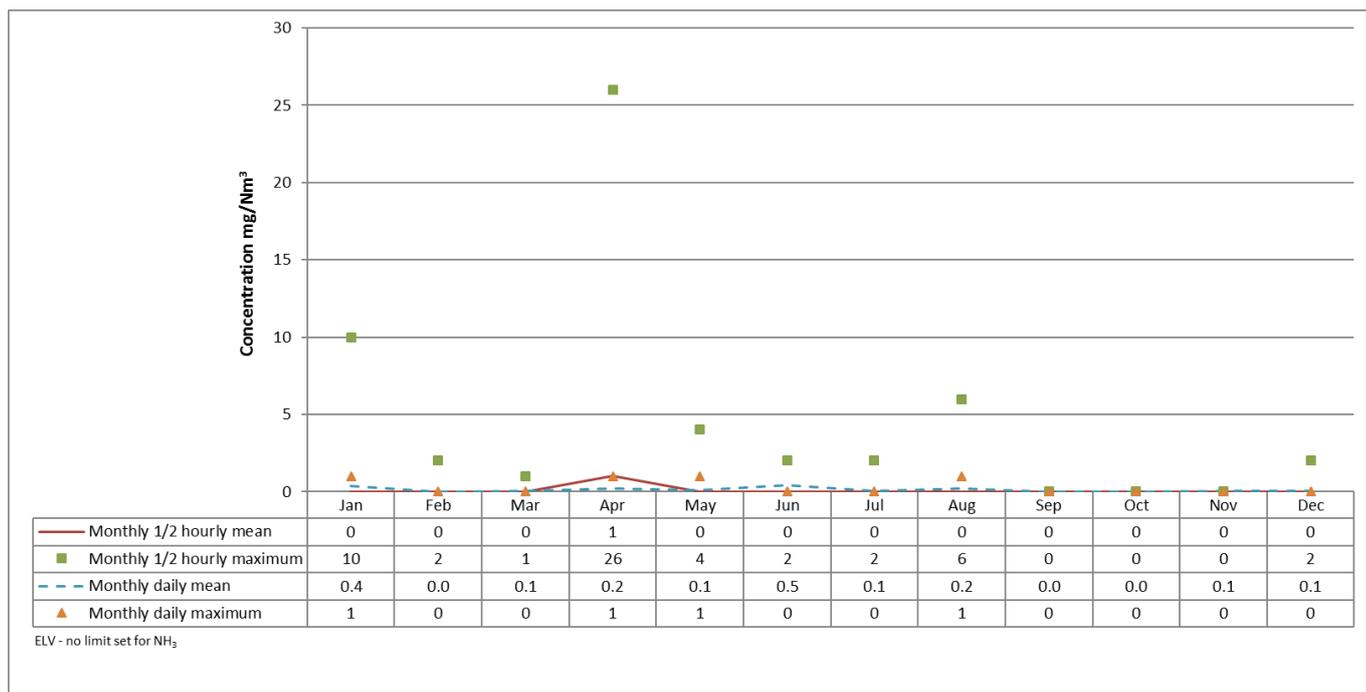
## Particulates



## Carbon monoxide



## 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		
		29 <sup>th</sup> & 30 <sup>th</sup> January 2018	16 <sup>th</sup> & 17 <sup>th</sup> April 2018	20 <sup>th</sup> - 23 <sup>rd</sup> August 2018
Mercury and its compounds	0.05 mg/m <sup>3</sup>	0.002 mg/m <sup>3</sup>	0.001 mg/m <sup>3</sup>	0.0007 mg/m <sup>3</sup>
Cadmium & thallium and their compounds (total)	0.05 mg/m <sup>3</sup>	0.001 mg/m <sup>3</sup>	0.0007 mg/m <sup>3</sup>	<0.0007 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>	0.03 mg/m <sup>3</sup>	0.14 mg/m <sup>3</sup>	0.0154 mg/m <sup>3</sup>
Dioxins and furans (I-TEQ)	0.1 ng/m <sup>3</sup>	0.010 ng/m <sup>3</sup>	0.015 ng/m <sup>3</sup>	0.030 ng/m <sup>3</sup>
Hydrogen Fluoride	2 mg/m <sup>3</sup>	0.04 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	<0.03 mg/m <sup>3</sup>

## 5. Summary of Permit Compliance

### 5.1 Compliance with permit limits for continuously monitored pollutants

The plant met its emission limits as shown in the table below.

Substance	Percentage time compliant during operation	
	Half-hourly limit	Daily limit
Particulates	100.0 %	100 %
Oxides of nitrogen	100.0 %	100 %
Sulphur dioxide	100.0 %	100 %
Carbon monoxide	99.9997 %	100 %
Total organic carbon	100.0 %	100 %
Hydrogen chloride	100.0 %	100 %
Hydrogen fluoride	100.0 %	100 %

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

Date	Summary of notification or non-compliance	Reason	Measures taken to prevent reoccurrence
02/01/18	Notification for loss of three half hourly readings for dust.	Software bug unknown to OEM prior to this issue	OEM rectified the issue and updated the software
22/03/18	Notification for CO half hourly exceedance of 341 mg/m <sup>3</sup>	Explosion on grate causing oxygen reduction in furnace.	N/A
27/05/18	Notification for CO half hourly measurement of 140.08 mg/m <sup>3</sup>	CO spike occurred during plant start-up (not feeding waste at time of CO measurement).	N/A
14/08/18	Notification for CO half hourly exceedance of 145.35 mg/m <sup>3</sup>	Secondary air fan reduction / reduced oxygen.	Raw gas alarm limit set to alert operators.
19/11/18	Notification for CO half hourly exceedance of 122.71 mg/m <sup>3</sup>	Explosion on grate causing oxygen reduction in furnace.	N/A

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

Date of complaint	Summary of complaint	Reason for complaint including whether substantiated by the operator or the EA	If substantiated, measures to prevent reoccurrence
12/01/18	The trailer of a vehicle which had left EnviRecover was parked outside a unit on the Trading Estate without permission.	EnviRecover were not aware of this decision which was made by the driver of an external company.	EnviRecover assisted Estate Management by contacting the company and arranging for the trailer to be moved.
18/01/18	Paper waste seen falling from refuse vehicle in nearby road.	Substantiated.	Relevant council contacted to ensure vehicles are checked and clean before leaving EnviRecover.
27/02/18	Noise complaint	Not substantiated	Noise investigated and attributed to another nearby site.
17/04/18	Refuse vehicle using nearby lane to access EnviRecover. This is not a permitted route.	Substantiated	Relevant waste company contacted. Information on permitted routes and the importance of complying with this was reissued to their staff.
25/07/18	Odour complaint / tipping hall doors open for short duration.	Substantiated. An unusual load containing excessive amounts of dust had just tipped. The doors were held open following this to allow clean air into the tipping hall.	Responsible company contacted to ensure that future received waste does not contain excessive amounts of dust.
19/09/18	Polythene attached to a refuse vehicle when leaving site. This blew off littering the estate road.	Substantiated.	Relevant company contacted to ensure vehicles are checked and clean before leaving EnviRecover. Additionally, weighbridge staff were reminded to visually check all vehicles on exit.

## 6. Summary of plant improvements

**Summary of any permit improvement conditions that have been completed within the year and the resulting environmental benefits.**

None

**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.**

Permit variation submitted in November 2018 requesting a 15% increase on annual tonnage. Derogation granted on 11<sup>th</sup> September 2018 permitting up to 203,000 tonnes of waste to be brought on to site in 2018.

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

None

**7. Details of any public liaison planned for 2019:**

<b>Date and time</b>	<b>Description</b>	<b>Location</b>
Quarterly	Community Liaison Group	EnviRecover

If you wish to be involved in the public liaison programme, please contact local Parish Council.