Annual performance report for: **Newlincs Developments Ltd Integrated Waste Management Facility**

Permit Number: **EPR/BT4249IB**

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	Newlincs Developments Ltd Integrated Waste Management Facility, South Marsh Road Stallingborough, Grimsby, NE Lincolnshire. DN41 8BZ
Description of waste input	Municipal / Household waste from the NELC catchment area
Operator contact details if members of the public have any questions	Sharon Hunt 01469 552550

2. Plant description

The facility is an Energy from Waste process.

The plant has a design capacity of 7 tonnes per hour, which equates to 56,000 tonnes per annum including an allowance for plant maintenance shutdowns.

The waste originates from approximately 160,000 occupants of the North East Lincolnshire Council catchment area.

There is one waste incineration stream consisting of an oscillating kiln and boiler with a flue gas treatment system prior to the release of air through the chimney. The heat produced is used to generate electricity for own use and export to the neighbouring chemical manufacturing plant or the national grid along with hot water which is also exported to the same adjacent plant. The process generates approximately 3MW of electricity and 3MW of heat.

Within the facility we store small amounts of chemicals to support the process, these include Caustic Soda & Hydrochloric Acid, in liquid solution, for water treatment; Lime and Activated Carbon, in powder form and Urea, in pellet form, for flue gas treatment; additives for boiler water chemistry and typical maintenance materials such as greases and lubricants. These are all stored in suitable facilities.

3. Summary of Plant Operation

Municipal waste received	42,967 tonnes
Commercial and industrial waste received	8,513 tonnes
Total waste received	51,480 tonnes
Total plant operational hours	8,042 hours
Total hours of “abnormal operation” (see permit for definition)	None
Total quantity of incinerator bottom ash (IBA) produced	8,019 tonnes
Disposal or recovery route for IBA	R05
Did any batches of IBA test as hazardous? If yes, state quantity	None
Total quantity of air pollution control (APC) residues produced	2,250 tonnes
Disposal or recovery route for APC residues	D01.03
Total electricity generated for export to the National Grid	19,756 MWh
Total heat produced for export (e.g. to hospital or district heating scheme)	2,667 MW

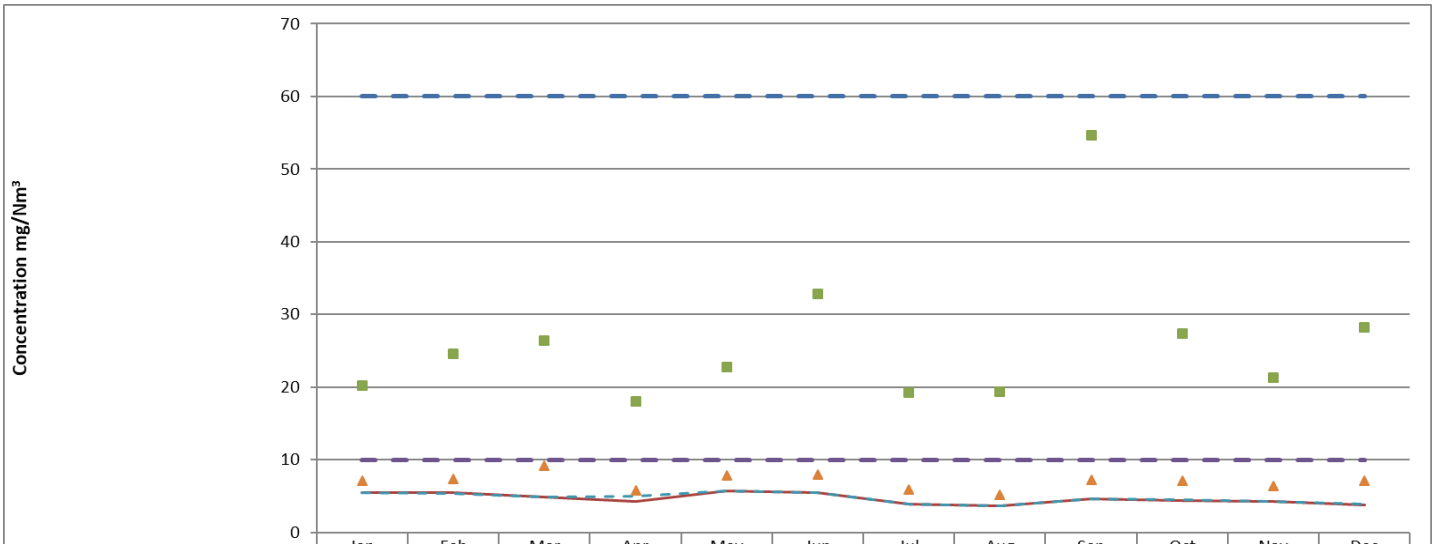
4. Summary of Plant Emissions

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.

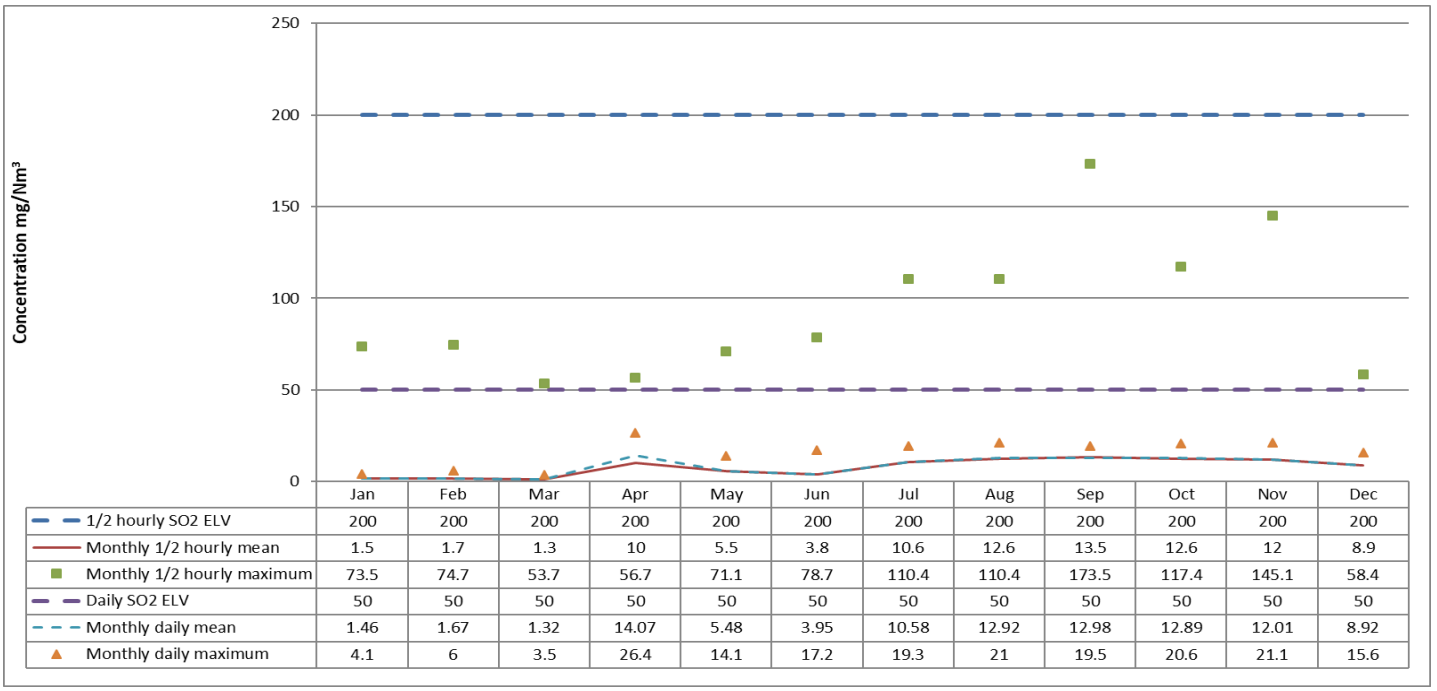
Monthly emissions summary incl half-hou

Line 1 - Hydrogen chloride



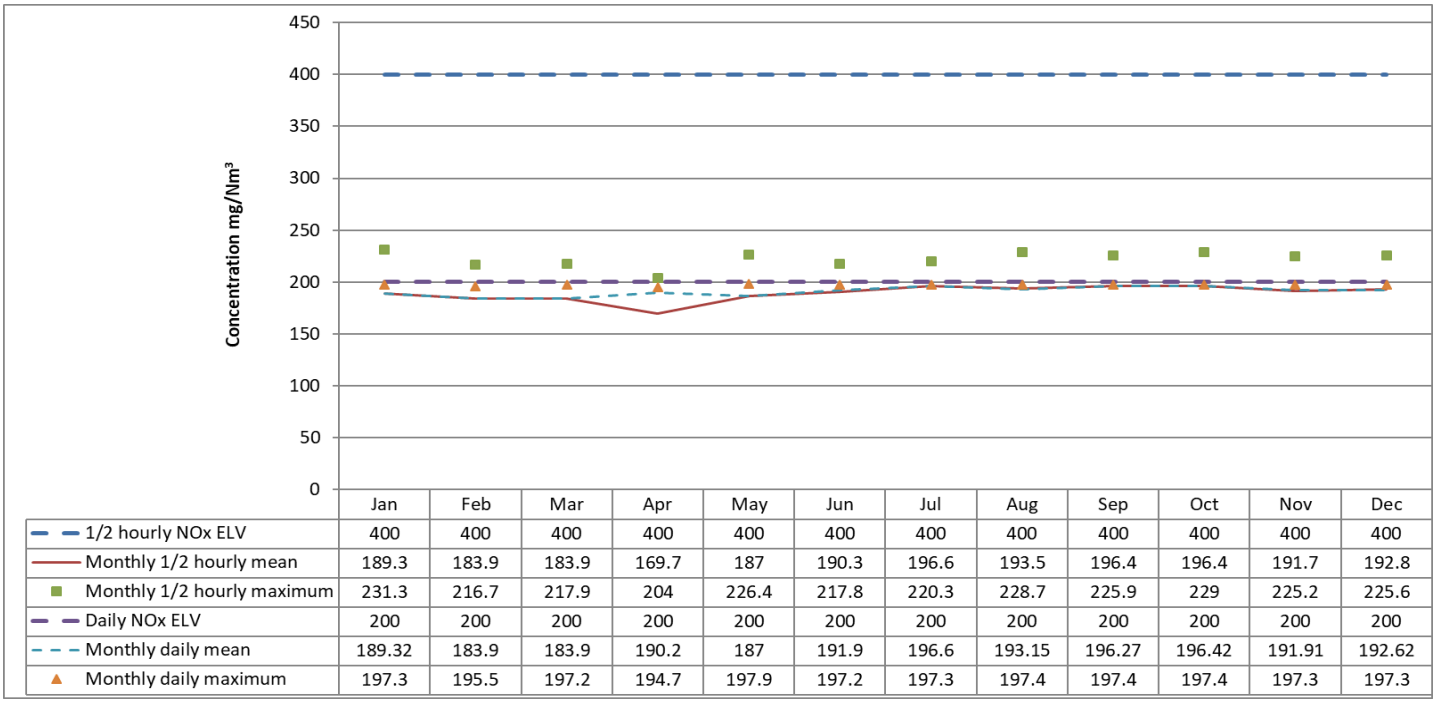
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1/2 hourly HCl ELV	60	60	60	60	60	60	60	60	60	60	60	60
Monthly 1/2 hourly mean	5.5	5.4	4.8	4.3	5.7	5.4	3.9	3.6	4.6	4.4	4.2	3.8
Monthly 1/2 hourly maximum	20.2	24.6	26.4	18	22.7	32.8	19.2	19.4	54.6	27.3	21.3	28.2
Daily HCl ELV	10	10	10	10	10	10	10	10	10	10	10	10
Monthly daily mean	5.51	5.38	4.82	4.93	5.65	5.51	3.87	3.64	4.61	4.45	4.27	3.85
Monthly daily maximum	7.1	7.4	9.2	5.8	7.8	7.9	5.9	5.1	7.2	7.1	6.4	7.1

Line 1 – Sulphur dioxide



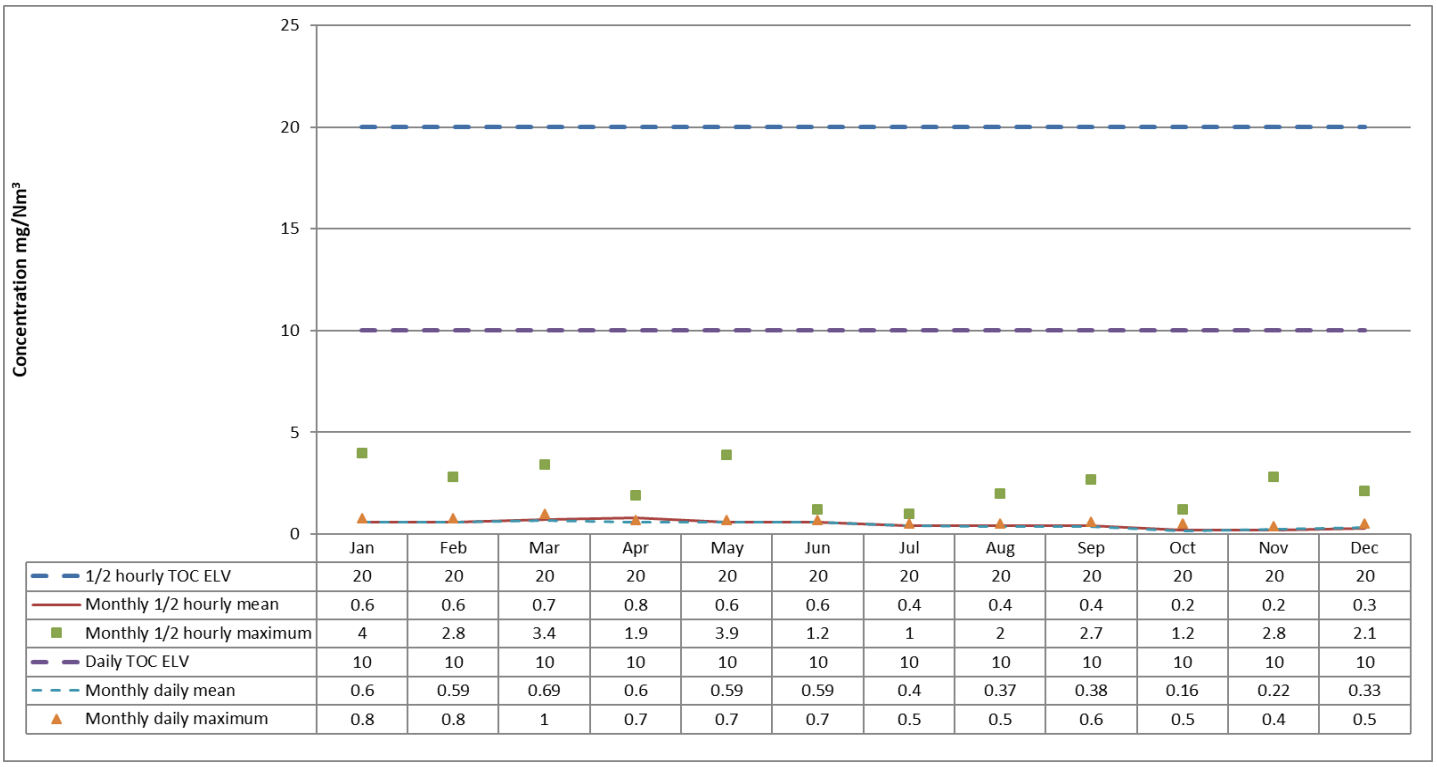
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1/2 hourly SO2 ELV	200	200	200	200	200	200	200	200	200	200	200	200
Monthly 1/2 hourly mean	1.5	1.7	1.3	10	5.5	3.8	10.6	12.6	13.5	12.6	12	8.9
Monthly 1/2 hourly maximum	73.5	74.7	53.7	56.7	71.1	78.7	110.4	110.4	173.5	117.4	145.1	58.4
Daily SO2 ELV	50	50	50	50	50	50	50	50	50	50	50	50
Monthly daily mean	1.46	1.67	1.32	14.07	5.48	3.95	10.58	12.92	12.98	12.89	12.01	8.92
Monthly daily maximum	4.1	6	3.5	26.4	14.1	17.2	19.3	21	19.5	20.6	21.1	15.6

Line 1 – Oxides of nitrogen



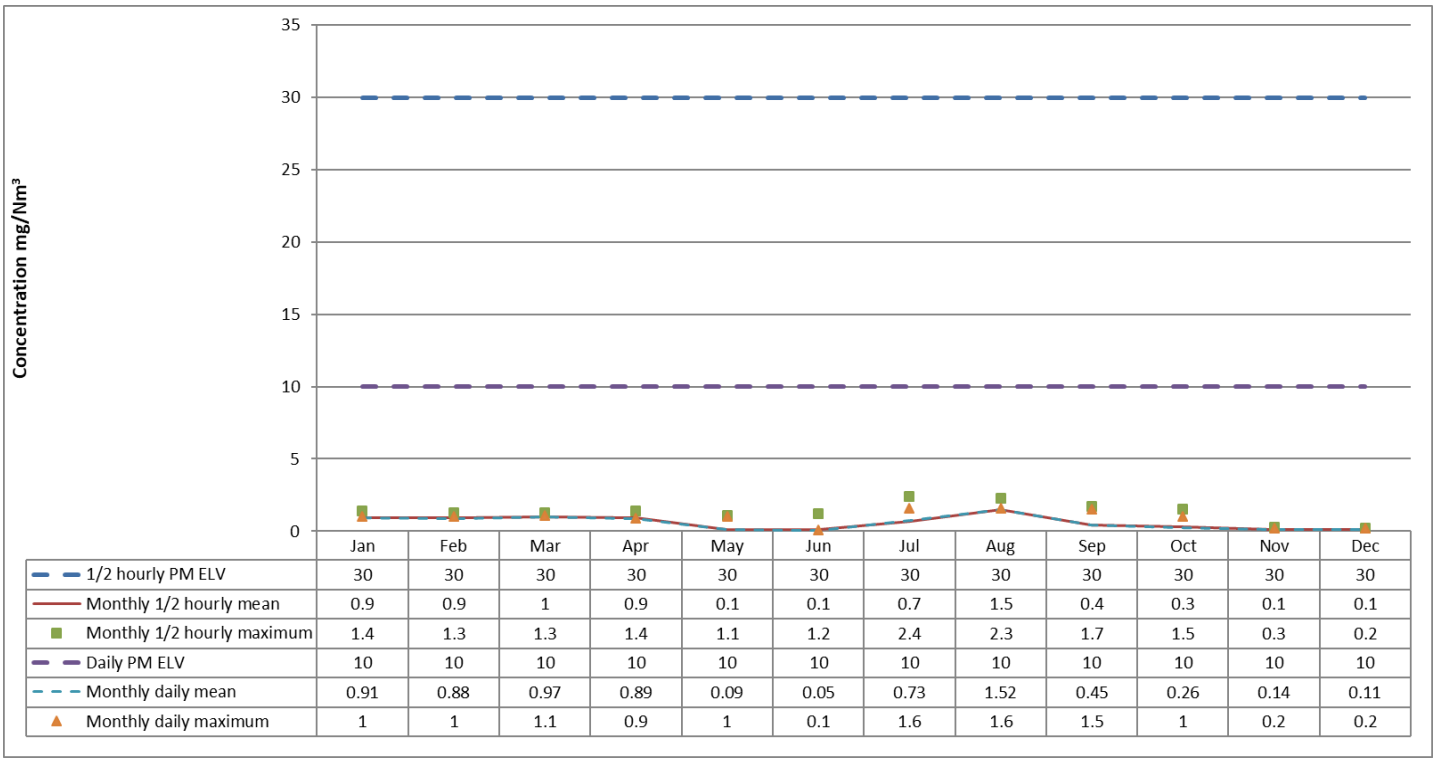
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1/2 hourly NOx ELV	400	400	400	400	400	400	400	400	400	400	400	400
Monthly 1/2 hourly mean	189.3	183.9	183.9	169.7	187	190.3	196.6	193.5	196.4	196.4	191.7	192.8
Monthly 1/2 hourly maximum	231.3	216.7	217.9	204	226.4	217.8	220.3	228.7	225.9	229	225.2	225.6
Daily NOx ELV	200	200	200	200	200	200	200	200	200	200	200	200
Monthly daily mean	189.32	183.9	183.9	190.2	187	191.9	196.6	193.15	196.27	196.42	191.91	192.62
Monthly daily maximum	197.3	195.5	197.2	194.7	197.9	197.2	197.3	197.4	197.4	197.4	197.3	197.3

Line 1 – Total organic carbon



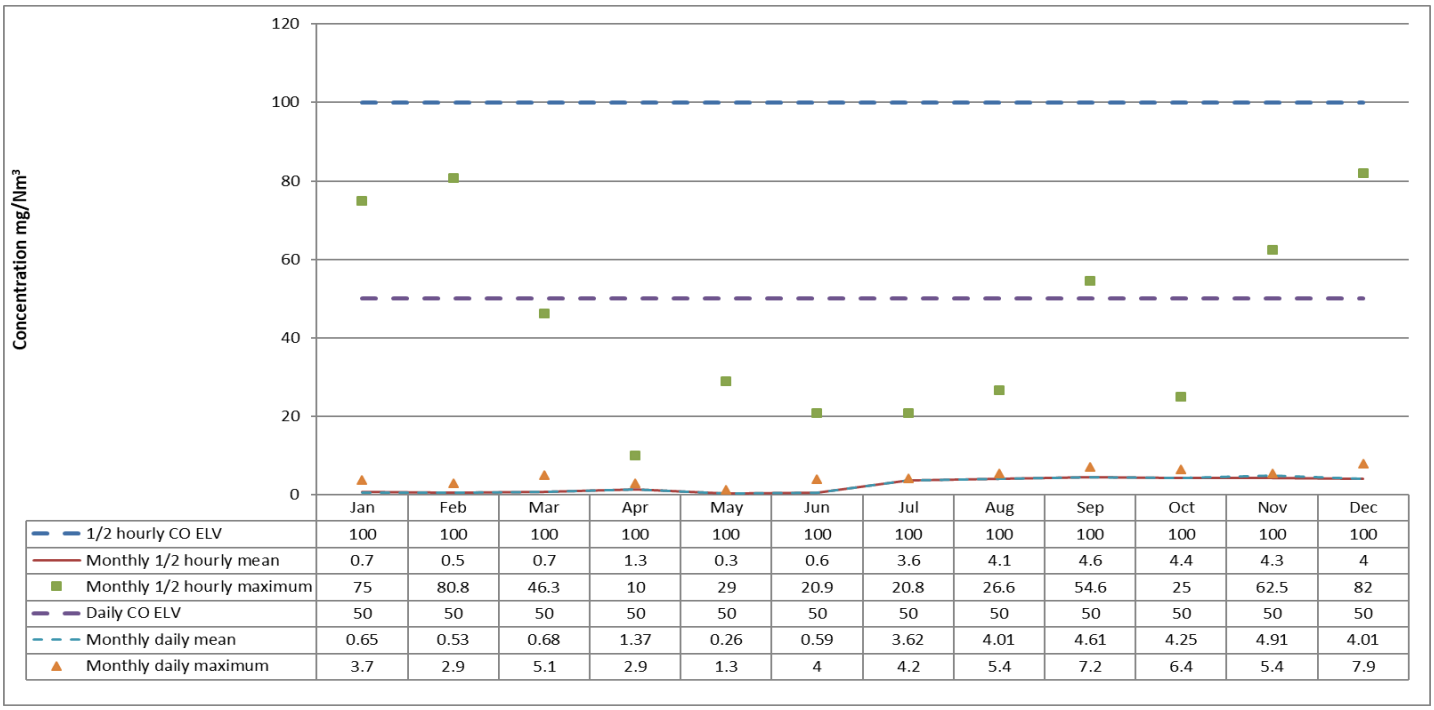
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1/2 hourly TOC ELV	20	20	20	20	20	20	20	20	20	20	20	20
Monthly 1/2 hourly mean	0.6	0.6	0.7	0.8	0.6	0.6	0.4	0.4	0.4	0.2	0.2	0.3
Monthly 1/2 hourly maximum	4	2.8	3.4	1.9	3.9	1.2	1	2	2.7	1.2	2.8	2.1
Daily TOC ELV	10	10	10	10	10	10	10	10	10	10	10	10
Monthly daily mean	0.6	0.59	0.69	0.6	0.59	0.59	0.4	0.37	0.38	0.16	0.22	0.33
Monthly daily maximum	0.8	0.8	1	0.7	0.7	0.7	0.5	0.5	0.6	0.5	0.4	0.5

Line 1 – Particulates



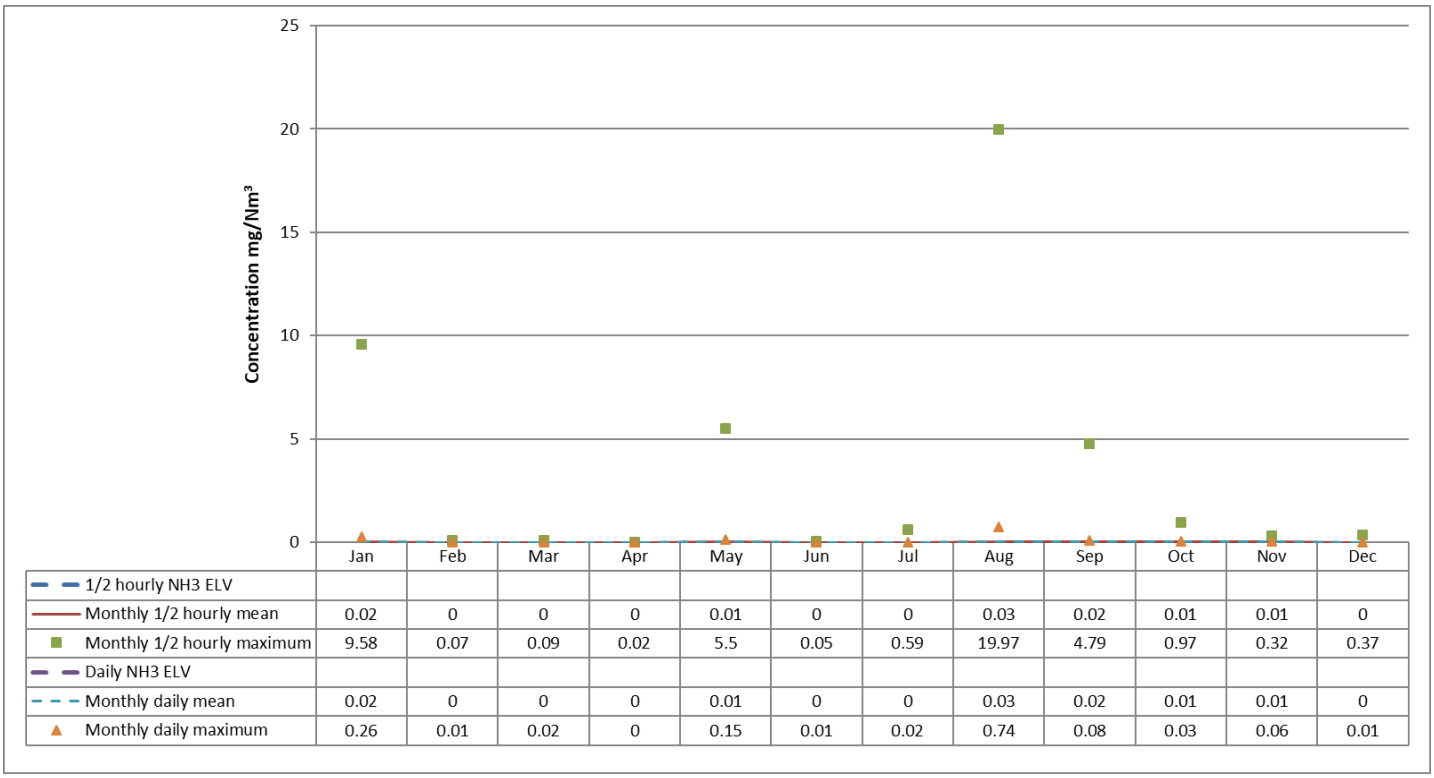
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1/2 hourly PM ELV	30	30	30	30	30	30	30	30	30	30	30	30
Monthly 1/2 hourly mean	0.9	0.9	1	0.9	0.1	0.1	0.7	1.5	0.4	0.3	0.1	0.1
Monthly 1/2 hourly maximum	1.4	1.3	1.3	1.4	1.1	1.2	2.4	2.3	1.7	1.5	0.3	0.2
Daily PM ELV	10	10	10	10	10	10	10	10	10	10	10	10
Monthly daily mean	0.91	0.88	0.97	0.89	0.09	0.05	0.73	1.52	0.45	0.26	0.14	0.11
Monthly daily maximum	1	1	1.1	0.9	1	0.1	1.6	1.6	1.5	1	0.2	0.2

Line 1 – Carbon monoxide



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1/2 hourly CO ELV	100	100	100	100	100	100	100	100	100	100	100	100
Monthly 1/2 hourly mean	0.7	0.5	0.7	1.3	0.3	0.6	3.6	4.1	4.6	4.4	4.3	4
Monthly 1/2 hourly maximum	75	80.8	46.3	10	29	20.9	20.8	26.6	54.6	25	62.5	82
Daily CO ELV	50	50	50	50	50	50	50	50	50	50	50	50
Monthly daily mean	0.65	0.53	0.68	1.37	0.26	0.59	3.62	4.01	4.61	4.25	4.91	4.01
Monthly daily maximum	3.7	2.9	5.1	2.9	1.3	4	4.2	5.4	7.2	6.4	5.4	7.9

Line 1 – Ammonia



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1/2 hourly NH3 ELV												
Monthly 1/2 hourly mean	0.02	0	0	0	0.01	0	0	0.03	0.02	0.01	0.01	0
Monthly 1/2 hourly maximum	9.58	0.07	0.09	0.02	5.5	0.05	0.59	19.97	4.79	0.97	0.32	0.37
Daily NH3 ELV												
Monthly daily mean	0.02	0	0	0	0.01	0	0	0.03	0.02	0.01	0.01	0
Monthly daily maximum	0.26	0.01	0.02	0	0.15	0.01	0.02	0.74	0.08	0.03	0.06	0.01

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			
		09/01/18	09/05/18	09/07/18	10/10/18
Mercury and its compounds	0.05 mg/m^3	0.0006 mg/m^3	0.0003 mg/m^3	0.0020 mg/m^3	0.0004 mg/m^3
Cadmium & thallium and their compounds (total)	0.05 mg/m^3	0.003 mg/m^3	0.0008 mg/m^3	0.0009 mg/m^3	0.0009 mg/m^3
Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/m^3	0.2 mg/m^3	0.016 mg/m^3	0.02 mg/m^3	0.03 mg/m^3
Dioxins and furans (I-TEQ)	0.1 ng/m^3	Not Tested	0.011 ng/m^3	Not Tested	0.003 ng/m^3
Hydrogen Fluoride	2 mg/m^3	0.03 mg/m^3	0.04 mg/m^3	0.03 mg/m^3	0.31 mg/m^3

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

5.1 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 %	100 %
Oxides of nitrogen	100 %	100 %
Sulphur dioxide	100 %	100 %
Carbon monoxide	100 %	100 %
Total organic carbon	100 %	100 %
Hydrogen chloride	100 %	100 %
Hydrogen fluoride	100 %	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
	None		

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
	None		

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.
None
Summary of any other improvements made to the plant or planned to be made and a summary of the resulting environmental benefits.
None