

NEWLINCS DEVELOPMENT LTD

ANNUAL IED

REPORT

2016

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Annual Performance Report for Newlincs Developments Ltd
BT4249IB

2016

This report is required under the Industrial Emissions Directive's Article 55(2): - requirements on access to information and public participation. This requires the operator of an incineration or co-incineration plant to produce an annual report to the Regulator on the functioning and monitoring of the plant and to make this available to the public. To satisfy the requirements of the Directive, the following information is provided clearly in the report:

1. Introduction

Company name	Newlincs Developments Limited
Name of plant	Integrated Waste Management Facility
Permit number	BT4249IB
Address	South Marsh Road Stallingborough Grimsby NE Lincolnshire DN41 8BZ
Phone	01469 552550
Contact name	Graham Hewitt
Position	Assistant Energy from Waste Plant Manager
Description of waste types burned and origin	The plant receives municipal / household waste from the NELC catchment area.
Contact for further copies of the report	S Gilbert G Hewitt

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

- a) The plant is designed to operate at 56,000 tonnes per annum capacity which is based upon an operating target of 8,000 hours per year achieved by a single line process. The remainder of the annual hours is attributed to maintenance shut downs and servicing.

b)

Waste type	EWC Code	Tonnes
Municipal waste	20-03-01	54,855

- c) The plant operated for 8,147 hours during the fiscal year against the target of 8,000 hrs. The significant non-operational hours were due to scheduled stops of 611 hours for maintenance work and 25 hours unscheduled stoppages.

- d) The plant operation resulted in the following waste materials in the form of residues.

Material	EWC Code	Tonnes
Ferrous metals	19-01-02	942
Bottom Ash (BA)	19-01-12	9,396
APC residue	19-01-13	2,690

- e) The above materials were disposed of offsite as follows.

Material	EWC Code	Destination
Ferrous metals	19-01-02	Reclamation/ recycling
Bottom Ash (BA)	19-01-12	Recycling
APC residue	19-01-13	Treatment facility/ landfill

- f) The plant achieved the following outputs of energy which were exported to the neighbouring chemical complex.

Item	Units	Amount
Electricity exported	MWhrs	20,059
Heat generated & exported	MWhrs	1,891

*Heat available was significantly higher (19,876 MWhrs) actual exported is less due to lower demand from customer.

4. Summary of plant monitoring.

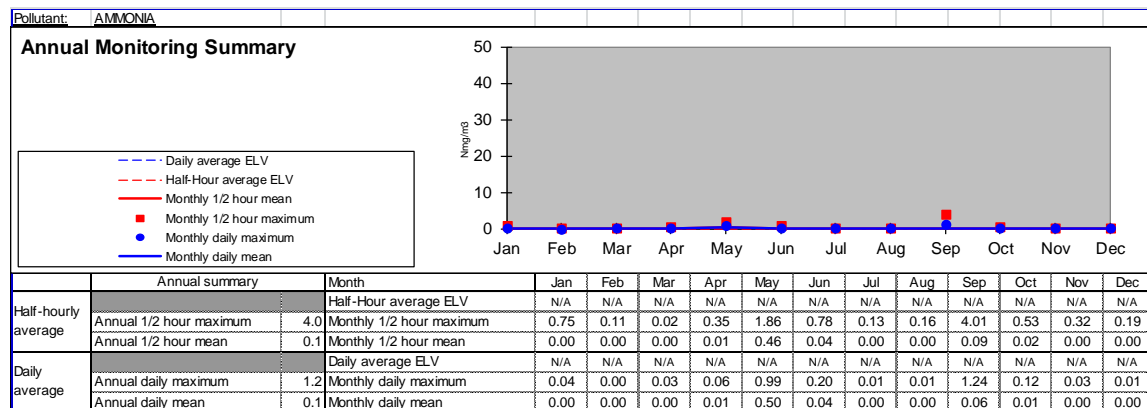
The plant operates a continuous monitoring package of analysers which measure and report data of the releases to air via the process chimney. The parameters monitored are tabled below. In addition spot sampling and analysis are carried out on other items resulting from the process. These can then be split into two categories i) continuously monitored and ii) periodically monitored.

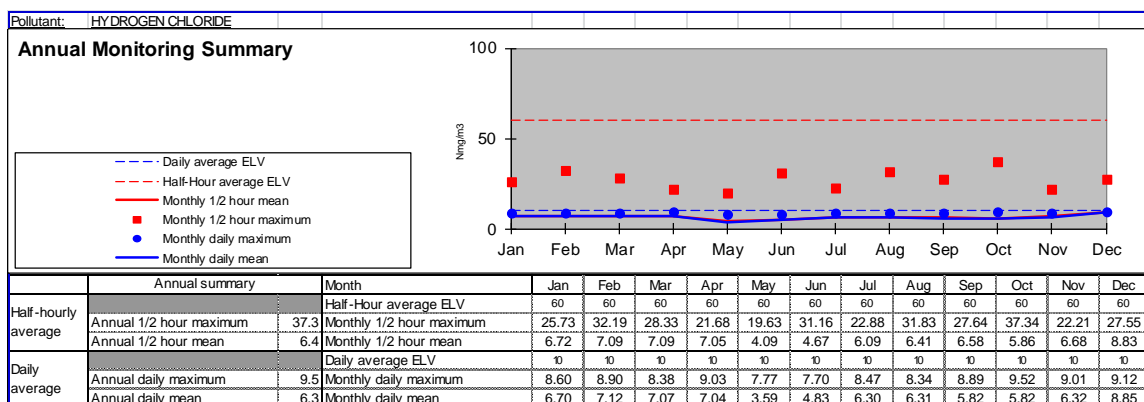
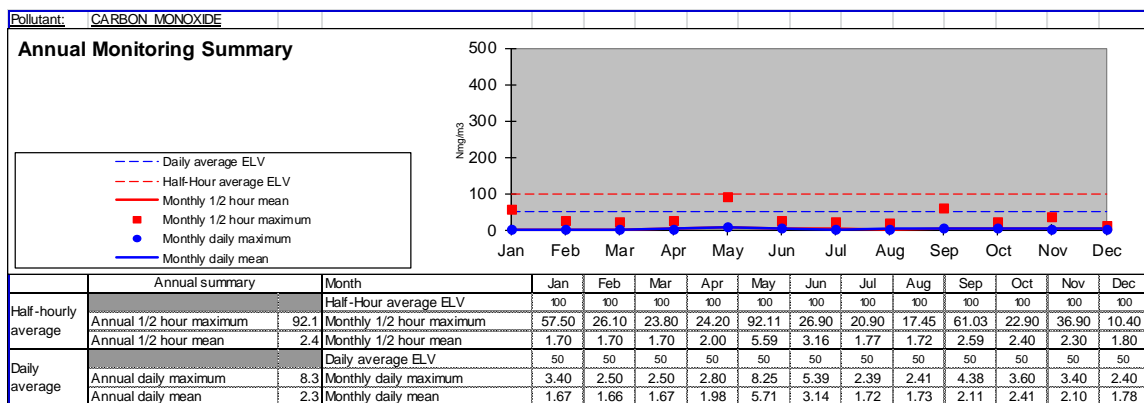
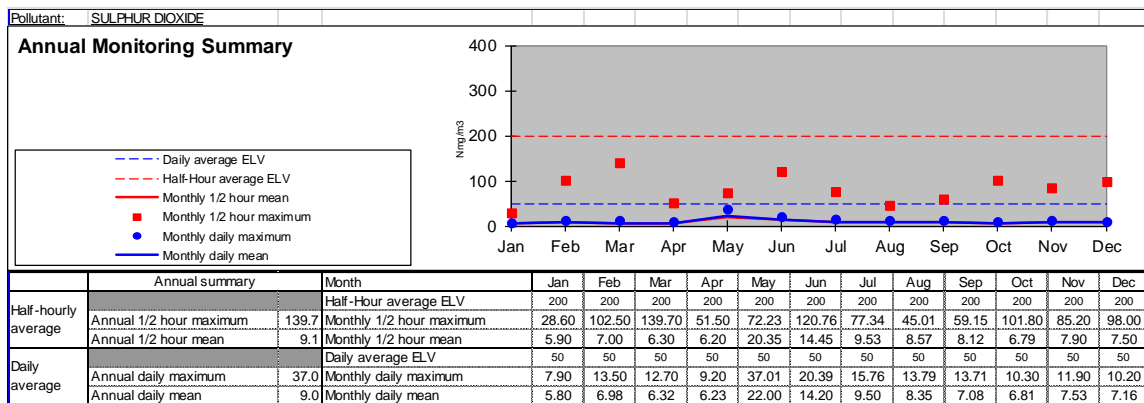
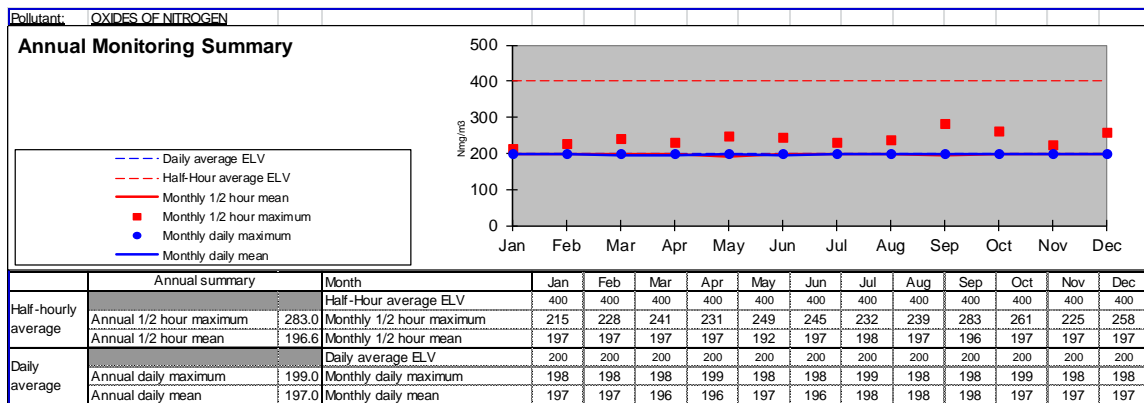
a)

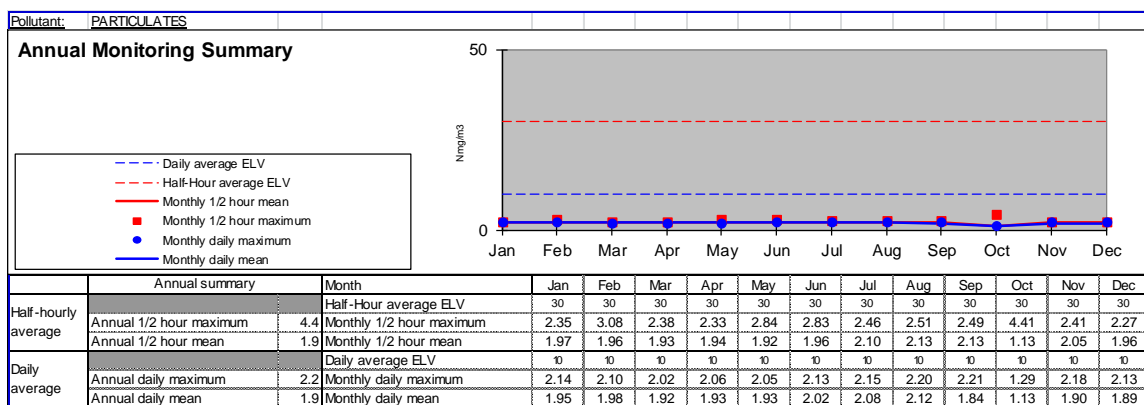
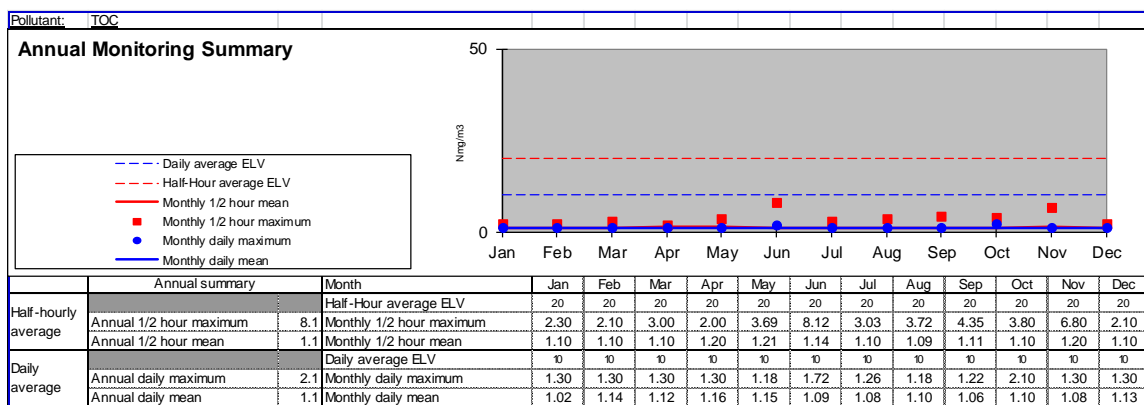
<i>Pollutants measured</i>	<i>Continuous</i>	<i>Periodically</i>
Particulates	✓	
Oxides of Nitrogen	✓	
Sulphur Dioxide	✓	
Carbon Monoxide	✓	
Ammonia	✓	
Total Organic Carbon (TOC)	✓	
Hydrogen Chloride	✓	
Mercury		✓
Cadmium and Thallium		✓
Group III metals		✓
PCDD and PCDF		✓
Hydrogen Fluoride		✓

b) The continuous monitoring package was operational for 100% of the plant actual operational hours.

c) Statistical and graphical data is shown below for the required pollutants.







d) The independent sampling carried out on quarterly bases gave the following results.

Pollutant	Units	Q1	Q2	Q3	Q4
Particulates	mg/m ³	N/A*	1.8	N/A	0.2
Oxides of Nitrogen	mg/m ³	N/A*	352	N/A*	241
Sulphur Dioxide	mg/m ³	N/A*	50	N/A*	17.5
Carbon Monoxide	mg/m ³	N/A*	2.1	N/A*	3.9
Ammonia	mg/m ³	N/A*	0.08	N/A*	1.47
Total Organic Carbon (TOC)	mg/m ³	N/A*	0.43	N/A*	0.42
Hydrogen Chloride	mg/m ³	N/A*	4.9	N/A*	5.8
Mercury	mg/m ³	0.0004	0.0007	0.001	0.0005
Cadmium and Thallium	mg/m ³	0.001	0.003	0.049	0.001
Group III metals	mg/m ³	0.04	0.009	0.019	0.16
PCDD and PCDF	ng/m ³	N/A*	0.003	N/A*	0.0195
Hydrogen Fluoride	mg/m ³	0.03	0.1	0.04	0.05

* Not tested

**Not detected

5. Summary of plant compliance

a) Pollutant compliance to permitted limits:

Pollutant	Time within permitted limits (%)
Particulates	100
Oxides of Nitrogen	100
Sulphur Dioxide	100
Carbon Monoxide	100

Ammonia	100
Organic Carbon (TOC)	100
Hydrogen Chloride	100

- b) Non-compliance periods: NA
- c) There were no formal notices received during 2016.

6) Summary of plant improvements.

- a) Installation of inconel weld overlay to extend life of boiler water wall tubes.
- b) Modification to conveyors to reduce blockages and improve safety
- c) Update of plant computer control system
- d) Improvements to combustion fan damper control.

7) Summary of information made available

- a) All reporting is carried out in compliance with the Permit and the Environment Agency requirements.

This includes,

- Monthly reports of releases to air.
- Quarterly reports of releases to air (3rd party sampling), Swale pH levels, Bottom Ash and APC residue sampling result summaries.
- Annual reports.

All of the above is submitted to the Environment Agency electronically.

In addition monthly reports are available on the Newlincs web site
<http://www.newlincs.com>

- b) All records are held on site and are stored from commissioning (March 2004) to date.

Signed on behalf of the Operator

..........G Hewitt

Dated

13 January 2017