

# **NEWLINCS DEVELOPMENT LTD**

**ANNUAL WID**

**REPORT**

**2007**

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Annual Performance Report for Newlincs Developments Ltd  
BT4249IB

2007

**This report is required under the Waste Incineration Directive's Article 12(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 should be 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	Systems 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 NELC catchment area. There is one waste incineration stream consisting of an oscillating kiln and boiler with a flue gas treatment package prior to the chimney. The heat produced is used to generate electricity for export to the neighbouring chemical complex or the national grid along with hot water which is also exported to the same adjacent chemical plant. The process will generate approximately 3MW of electricity and 3MW of heat.

Within the facility we store small amounts of chemicals to support the process, these are such items as Caustic Soda & Hydrochloric Acid for water treatment, Lime and Activated Carbon for flue gas treatment, Urea for addition to the Denox system, additives for boiler water chemistry and typical maintenance support raw materials such as greases and lubricants. These are all stored in dedicated handling facilities.

**3. Summary of plant operation**

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

b)

<b>Waste type</b>	<b>EWC Code</b>	<b>Tonnes</b>
Municipal waste	20-03-01	49,784

c) The plant operated for 7,544 hrs during the fiscal year against the target of 8,000 hrs. The significant non operational hours were due to breakdowns, maintenance repairs and service work. The Combustor was non operational for 1, 216 hrs, the turbine for 1,412 hrs, of these 672 hrs where due to planned shutdowns.

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

<b>Material</b>	<b>EWC Code</b>	<b>Tonnes</b>
Ferrous metals	19-01-02	839
Bottom Ash (BA)	19-01-12	9,453
APC residue	19-01-14	2,129

e) The above materials were disposed of off site as follows.

<b>Material</b>	<b>EWC Code</b>	<b>Destination</b>
Ferrous metals	19-01-02	Reclamation/ recycling
Bottom Ash (BA)	19-01-12	Landfill
APC residue	19-01-14	Treatment facility/ landfill

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

<b>Item</b>	<b>Units</b>	<b>Amount</b>
Electricity exported	MWhrs	17,499.5
Heat generated & exported	MWhrs	2,933.3

#### 4. Summary of plant monitoring.

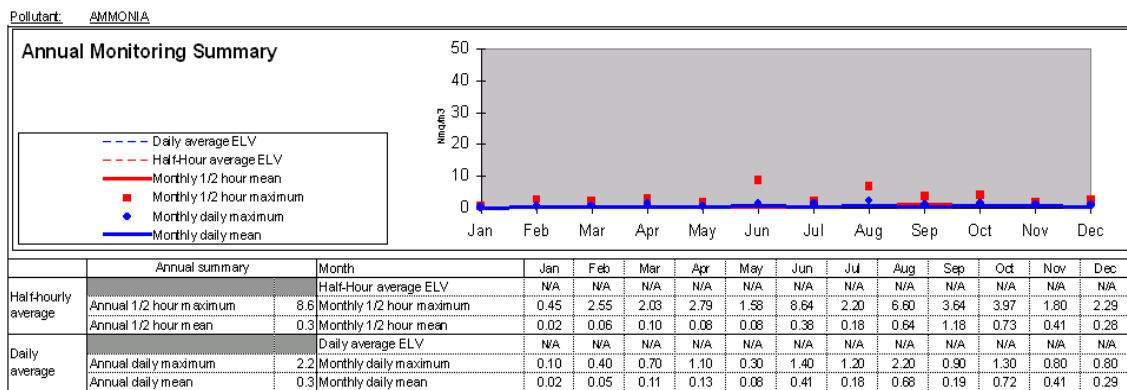
The plant operates a continuous monitoring package of analysers which measure and report data of the releases to air via the process chimney. The parameters monitored are tabled below. In addition spot sampling and analysis are carried out on other items resulting from the process. These can then be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

a)

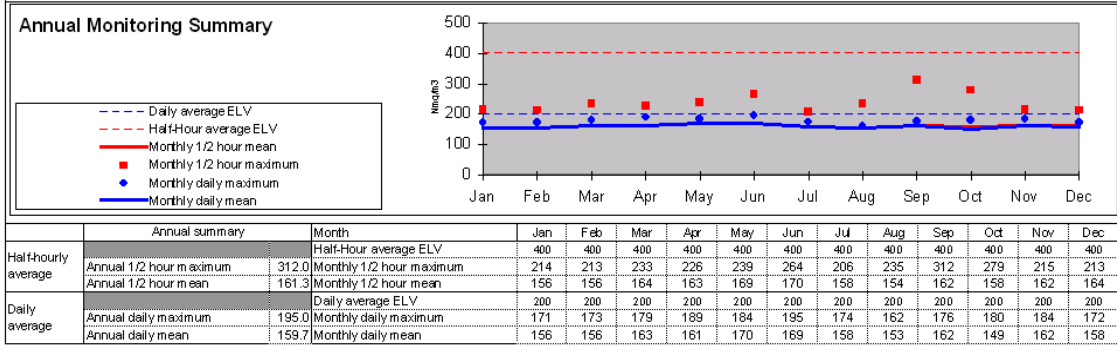
<b><i>Pollutants measured</i></b>	<b><i>Continuous</i></b>	<b><i>Periodically</i></b>
Particulates	✓	
Oxides of Nitrogen	✓	
Sulphur Dioxide	✓	
Carbon Monoxide	✓	
Ammonia	✓	
Total Organic Carbon (TOC)	✓	
Hydrogen Chloride	✓	
Mercury		✓
Cadmium and Thallium		✓
Group III metals		✓
PCDD and PCDF		✓
Hydrogen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

b) 100% of the plant actual operational hours.

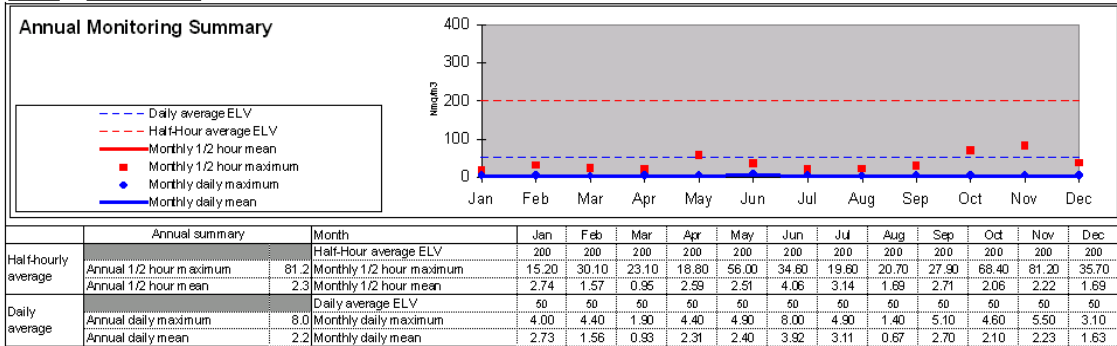
c) Statistical and graphical data is shown below for the required pollutants.



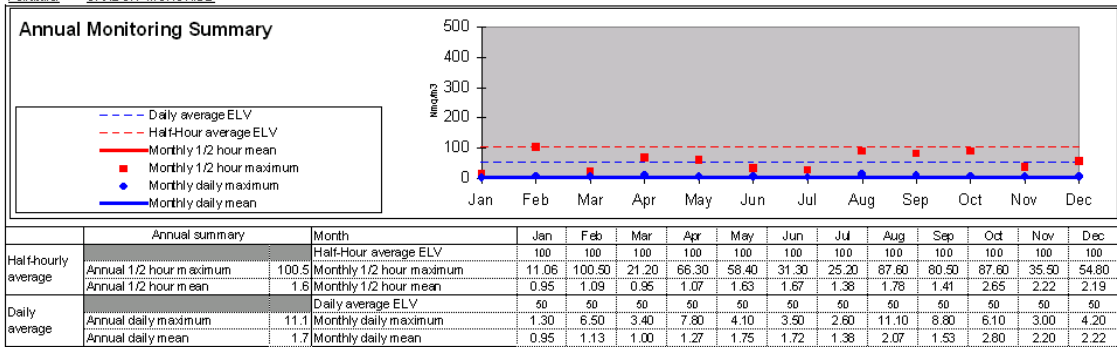
Pollutant: OXIDES OF NITROGEN



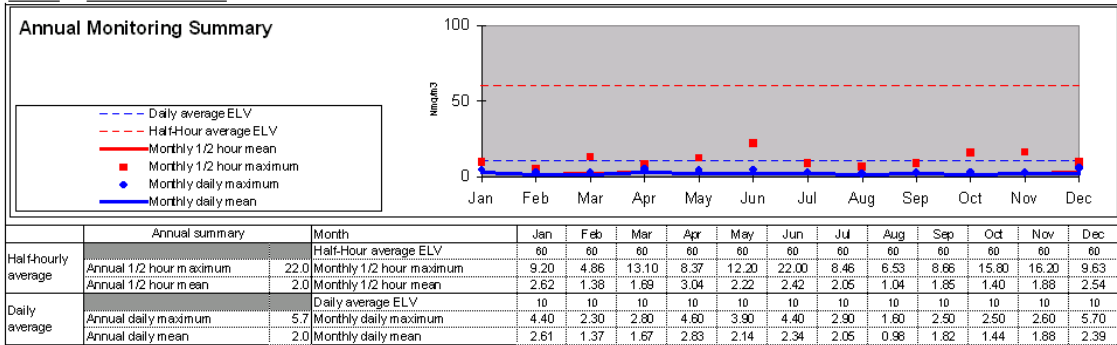
Pollutant: SULPHUR DIOXIDE



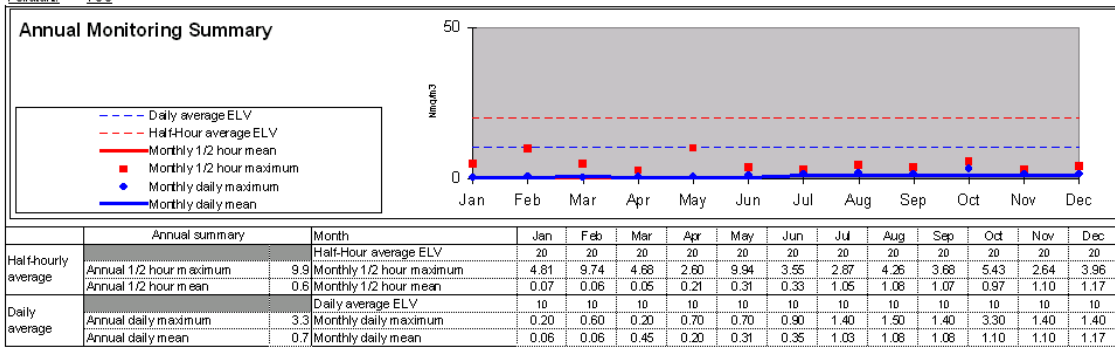
Pollutant: CARBON MONOXIDE



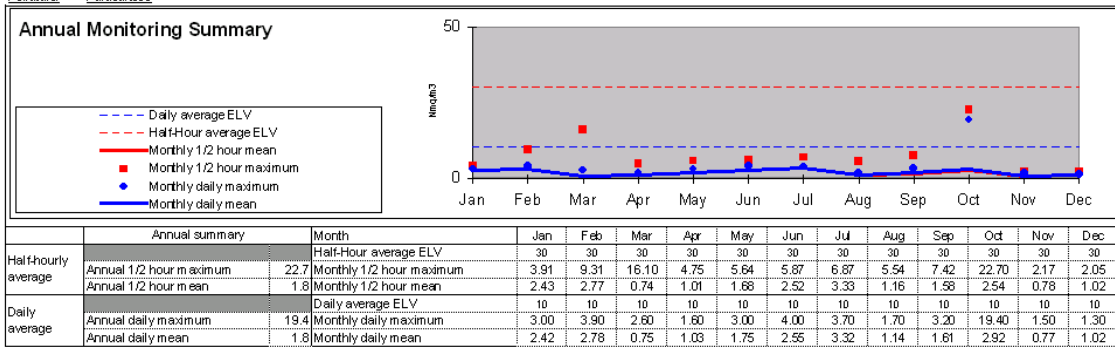
Pollutant: HYDROGEN CHLORIDE



Pollutant: TOC



Pollutant: Particulates



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

<b>Pollutant</b>	<b>Units</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
Particulates	mg/m <sup>3</sup>	2.1	3.09	N/A	1.92
Oxides of Nitrogen	mg/m <sup>3</sup>	N/A	195	N/A	305
Sulphur Dioxide	mg/m <sup>3</sup>	N/A	0.34	N/A	0.53
Carbon Monoxide	mg/m <sup>3</sup>	N/A	1.48	N/A	6.35
Ammonia	mg/m <sup>3</sup>	N/A	0.46	N/A	5.83
Total Organic Carbon (TOC)	mg/m <sup>3</sup>	N/A	0.16	N/A	0.54
Hydrogen Chloride	mg/m <sup>3</sup>	N/A	4.34	N/A	4.66
Mercury	mg/m <sup>3</sup>	0.01	0.001	0.002	0.002
Cadmium and Thallium	mg/m <sup>3</sup>	0.01	0.001	0.004	0.003
Group III metals	mg/m <sup>3</sup>	0.26	0.01	0.04	0.13
PCDD and PCDF	mg/m <sup>3</sup>	N/A	0.16	N/A	0.002
Hydrogen Fluoride	mg/m <sup>3</sup>	0.26	0.19	0.25	0.18

5. **Summary of plant compliance**

a) Pollutant compliance to permitted limits:

<b><i>Pollutant</i></b>	<b><i>Time within permitted limits (%)</i></b>
Particulates	100
Oxides of Nitrogen	100
Sulphur Dioxide	100
Carbon Monoxide	99.99
Ammonia	100
Organic Carbon (TOC)	100
Hydrogen Chloride	100

b) Non compliance periods:

The above tables indicate there was one period when operation of the plant exceeded the limit for CO, this period was for 0.5 hrs in total out of the 7,592 hrs of plant operation for the year and was reported via the schedule 1 notice submitted to the Environment Agency dated 13.02.07. Measures have been taken to ensure that this event will not reoccur.

A schedule 1 notice was also submitted on the 08.10.07 in respect of the high reading of the Dioxin/Furan I-TEQ sample taken during Quarter 2 sampling on the 24.05.07

Details of the schedule 1 notices are as follows:

13.02.07 following maintenance work the plant was restarted and a soft ware problem resulted in the system being put into minimum heat, this was counter acted by resetting the burners and fans manually and the plant was recovered.

08.10.07 the result was returned following quarter 2 sampling for 2007; at the time of the test there were no corroborating factors indicating irregular plant conditions to support such a result. All operating conditions at the time were normal. These conditions have not previously triggered any breeches, which prompted NEWLINCS to audit the testing procedure.  
The plant was being controlled within its operating parameters, and thus there was no justification to believe any limits were being breached, when the second quarter testing for 2007 took place on 24 May 2007. A repeat test was conducted under identical operating conditions and was found to be well within the limits.  
Upon the retest the results were found to be well within specification

c) There were no formal notices received during 2007.



**6) Summary of plant improvements.**

- a) Industrial Water.
  - Improvement of industrial water delivery capacity thus removing the necessity to supplement ash/clinker cooling water with external raw water supplies
- b) Waste Feed
  - Optimisation of waste feed control through implementation of ram modulation control loops allowing the waste feed to be regulated to enhance overall steam production.
  - Improved regulation of forced draught fans giving better response to changes in the calorific value of the waste incinerated.

**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 (3<sup>rd</sup> part 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 and in hard copy format (3 copies).

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

- b) Resident Liaison Panel meetings are held on a regular basis.
- c) We are a member of the local Stallingborough Community Liaison Panel as part of the Humber Focus Group which holds regular meetings at the CATCH training facilities.
- d) All records are held on site and are stored from commissioning (March 2004) to date.

**Signed on behalf of the Operator** .....

**Dated** .....