



**Annual Performance Report  
For Lakeside EFW Ltd  
Permit EA/EPR/BT7116IW/V002  
2011**



## **Introduction**

PPC permit EA/EPR/BT7116IW/V002 requires the following requirements to be reported on annually each year:-

*4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the agency by 31 January (or the date agreed in writing by the agency) each year. The report shall include as a minimum:*

- a) A review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of the data;*
- b) The annual production/ treatment data set out in schedule table 5.2; and*
- c) The performance parameters set out in schedule 5 table S5.3 using the forms specified in table S5.4 of that schedule.*
- d) The functioning and monitoring of the incineration plant in a format agreed with the Environment Agency. The report shall as a minimum requirement (as required by article 12(2) of the waste incineration Directive) give an account of the running of the process and the emissions into air and water compared with the emissions standards in the WID*

Form S3/0/1 was submitted separately to the Environment agency. The totals for the year are summarised in the table below.

Total waste incinerated (Tonnes)	Total bottom ash produced (Tonnes)	% Bottom ash recycled (Tonnes)	Total APC residues produced (Tonnes)	% APC residue recycled	% Carbon in the bottom ash (TOC)
423817	84573.1	100	12337.2	0	0.7 %

The design capacity of the plant is 411000 tonnes a year.

$$\frac{423817}{411000} \times 100 = 103.12 \% \text{ of design capacity}$$

The percentage bottom ash for the year is 19.96 % with 2.91 % APC residue. The bottom ash is recycled leaving only the APC residue going to landfill.

There is less than 1% carbon in the bottom ash which is within the 3% limit set in WID and demonstrates an efficient burn process.

### Downtime and Abnormal Operation

Form S3/0/2 and S3/0/3 were submitted separately to the Environment agency. The totals for the year are summarised below.

	Line A1		Line A2	
	Cumulative Hours of Abnormal operation	Hours of non operation	Cumulative Hours of Abnormal operation	Hours of non operation
January	0	5	0	125
February	1	18	0.5	165
March	1	0	0.5	16
April	1	118	1	167
May	1	1	1	0
June	1	0	1	121.5
July	1	0	1	0
August	1	72	1	0
September	1	418.5	1	336
October	2.5	54	1	0
November	2.5	0	1	0
December	2.5	0	1	0
Total	2.5	686.5		930.5
% Availability		92.16		89.38

The downtime for the plant has been minimal and availability has been above the 87% target value. The shutdowns above include outage work which is essential to maintain the running of the plant.

The hours of abnormal operation are within the 60 hour limit set by WID. The abnormal periods of operation were mainly the result of minor CEMS breakdowns with no emission limits being exceeded during these periods.

### Noise and Vibration

Form S3/N/1 was submitted separately to the Environment agency. The totals for the year are summarised below.

The levels of noise emitted from the site shall not exceed the limits in table 3.4.1 as measured or assessed at agreed locations specified in the table.

Location	L <sub>Aeq, 5 minute</sub> dB(A)	
Pippins School	39	Bi-Annual
The Hawthorns	39	Bi-Annual
Myrtle Close	39	Bi-Annual

Maximum measured value
L <sub>Aeq,T</sub> (dB(A))
38.6
38.6
38.4

Recorded noise levels were lower than the permitted values. The highest values recorded were with the ACC units on 100% duty.

#### Odour

There have been no odour releases from site and no substantiated odour complaints received during 2011.

#### Emissions

Forms S3/A/1 were submitted separately to the Environment agency for lines A1 and A2. The average recorded emission values for the year are summarised below for the continuous monitoring.

Substance	Daily emission limit mg/Nm <sup>3</sup>	Average annual emission mg/Nm <sup>3</sup> Line A1	Average annual emission mg/Nm <sup>3</sup> Line A2
NOx	200	177.36	170.50
HCl	10	3.79	3.26
SO <sub>2</sub>	50	3.38	2.69
CO	50	4.20	4.06
VOC	10	0.36	0.35
Ammonia	No limit	0.05	0.09
Active Dust	10	1.99	1.90
Active Dry O <sub>2</sub>	No limit	7.87%	7.73%
HF	2	0.01	0.40
CO <sub>2</sub>	No limit	10.75 %	10.84 %

Forms S3/A/2, S3/A/3 and S3/A/4 were submitted separately to the Environment agency for lines A1 and A2. All parameters were within the Environmental Permit limits.

Form S3/P/1 is for the second year of running. Comparing the performance data with last years data, it shows slight improvement, in that we used less water and less electricity per tonne of waste incinerated. Slightly less lime was used with a slight increase in the amount of carbon used.

Parameter	Performance 2010	Performance 2011	Units
Water usage	0.2111	0.1939	Tonnes/tonne incinerated
Energy usage	0.068	0.063	MWh/tonne
Steam exported	N/A	N/A	Tonnes/tonne incinerated
Lime used	0.0118	0.0115	Tonnes/tonne incinerated
Activated carbon used	0.0004	0.0005	Tonnes/tonne incinerated

REPORTING OF MONITORING DATA

**Monitoring summary for the 12 months ending December 2011**

**Operator:** Lakeside Energy from Waste Ltd.

**Permit Number:** EA/EPR/BT7116IW/V002

**Location:** Colnbrook, Slough

**Incinerator No. A1 and A2**

Parameter	Quantity	Units	Performance	Units
Waste Incinerated	423817	tonnes		
Water usage	82177	tonnes	0.1939	tonnes/tonne incinerated
Energy usage	26878	MWh	0.063	MWh/tonne incinerated
Steam exported	0	tonnes	N/A	tonnes/tonne incinerated
Total lime used	4890	tonnes	0.012	tonnes/tonne incinerated
Total activated carbon used	230	tonnes	0.0005	tonnes/tonne incinerated

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

**Dated** .....