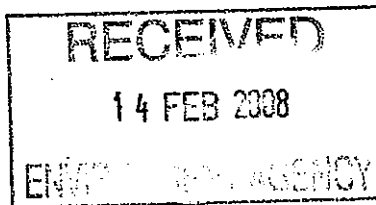


56

634



Attn: Colin Evans  
 Environment Agency  
 Midlands Region  
 IPC/RAS Team  
 Sentinel House  
 Wellington Crescent  
 Fradley Park  
 Lichfield  
 Staffs WS13 8RR



29<sup>th</sup> January 2008

Dear Mr Evans

**Authorisation WP3239SJ**

I enclose the report on the Performance of the Permitted Installation for 2007 and the Annual Performance Report.

Yours sincerely,

**Graham J Ross**  
**Plant Manager**

PUBLIC REGISTER DOCUMENT			
	✓ OR N/A	INITIALS	DATE
COMPLIANCE CHECKLIST	<input checked="" type="checkbox"/>	NRJc	12/5/08
TRACKING	<input type="checkbox"/>		
APPROVED FOR PUBLIC REGISTER		NRJc	12/5/08
SENT TO PUBLIC REGISTER			

Veolia ES Birmingham Limited  
 James Road, Tyseley, Birmingham, B11 2BA  
 tel: 0121 680 2000 • fax: 0121 680 2051 • www.veolia.co.uk

A member of Veolia Environmental Services (UK) Plc  
 Registered office: James Road, Birmingham, B11 2BA  
 Registered in England 2692681

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / PER / A1

**Reporting of Periodic Monitoring of Emissions to Air for the period from 1<sup>st</sup> June 2007 to 31<sup>st</sup> December 2007**

Emission Point	Substance / Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
A1	Particulate Matter	30 mg/m <sup>3</sup> over minimum 1 hour period	1.44mg/m <sup>3</sup>	BS EN 13284-1	10:39-11:47 08/11/08		12.1%
A1	VOC as Total Organic Carbon (TOC)	20 mg/m <sup>3</sup> over minimum 1 hour period	2.6mg/m <sup>3</sup>	BS EN 12619/13526	08:59-12:59 23/11/07	UKAS/MCERTS	80%
A1	Hydrogen chloride	60 mg/m <sup>3</sup> over minimum 1 hour period	8.44mg/m <sup>3</sup>	BS EN 1911	10:39-11:47 08/11/07		21.3%
A1	Hydrogen fluoride	2 mg/m <sup>3</sup> over minimum 1 hour period	0.16mg/m <sup>3</sup>	US EPA 26/26A	13:03-13:03 13/12/07		>100%
A1	Carbon monoxide	100 mg/m <sup>3</sup> over minimum 4 hour period	5.96mg/m <sup>3</sup>	ISO12039	11:30-15:30 12/12/07	UKAS/MCERTS	65.3%
A1	Sulphur dioxide	200 mg/m <sup>3</sup> over minimum 4 hour period	0.79mg/m <sup>3</sup>	BS6069-4.4	11:30-15:30 12/12/07	UKAS/MCERTS	>100%
A1	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	400 mg/m <sup>3</sup> over minimum 4 hour period	59.31mg/m <sup>3</sup>	ISO 10849	11:30-15:30 12/12/07	UKAS/MCERTS	23.0%
A1	Ammonia (NH <sub>3</sub> )	No limit applies	0.18mg/m <sup>3</sup>	EN 1911 (modified)	10:39-11:47 08/11/08		>100%
A1	Nitrous oxide (N <sub>2</sub> O)	No limit applies	<0.5mg/m <sup>3</sup>	VDI 2469-1	15:31-16:01 13/12/07		>100%
A1	Cadmium & thallium and their compounds (total)	0.05 mg/m <sup>3</sup> over minimum 30 minute, maximum 8 hour period	0.0052mg/m <sup>3</sup>	BS EN 14385:2004 & MID	09:39-11:39 13/12/07		20.8%
A1	Mercury and its compounds	0.05 mg/m <sup>3</sup> over minimum 30 minute, maximum 8 hour period	0.0008mg/m <sup>3</sup>	BS EN 13211	09:39-11:39 13/12/07		28.7%
A1	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/m <sup>3</sup> over minimum 30 minute, maximum 8 hour period	0.1069mg/m <sup>3</sup>	BS EN 14385:2004 & MID	09:39-11:39 13/12/07		19.9%
A1	Dioxins / furans (I-TEQ) <sup>6</sup>	0.1 ng/m <sup>3</sup> over minimum 6 hour, maximum 8 hour period	0.0392ng/m <sup>3</sup>	BS EN 1948	08:55-14:55 23/11/07		24.3%

Emission Point	Substance / Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
A1	Dioxin-like PCBs (WHO-TEQ Humans / Mammals) <sup>6</sup>	No limit applies	<0.00798ng/m <sup>3</sup>		08:55-14:55 23/11/07		
A1	Dioxin-like PCBs (WHO-TEQ Fish) <sup>6</sup>	No limit applies	<0.00040ng/m <sup>3</sup>		08:55-14:55 23/11/07		
A1	Dioxin-like PCBs (WHO-TEQ Birds) <sup>6</sup>	No limit applies	<0.01770ng/m <sup>3</sup>		08:55-14:55 23/11/07		
A1	Dioxins / furans (WHO-TEQ Humans / Mammals) <sup>6</sup>	No limit applies	0.04280ng/m <sup>3</sup>		08:55-14:55 23/11/07		
A1	Dioxins / furans (WHO-TEQ Fish) <sup>6</sup>	No limit applies	0.038814ng/m <sup>3</sup>		08:55-14:55 23/11/07		
A1	Dioxins / furans (WHO-TEQ Birds) <sup>6</sup>	No limit applies	0.058323ng/m <sup>3</sup>		08:55-14:55 23/11/07		
A1	Poly-cyclic aromatic hydrocarbons (PAHs) Total	No limit applies	0.599µg/m <sup>3</sup>	ISO 113381-1	9:54-15:54 12/12/07		41.6%
A1	Anthracene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Benzo[a]anthracene	No limit applies	0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Benzo[b]fluoranthene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Benzo[k]fluoranthene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Benzo[b]naph (2,1-d)thiophene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Benzo[c]phenanthrene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Benzo[ghi]perylene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Benzo[a]pyrene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Cholanthrene	No limit applies	µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Chrysene	No limit applies	0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Cyclopenta[c,d]pyrene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Dibenzo[a,h]anthracene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Dibenzo[a,i]pyrene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Fluoranthene	No limit applies	0.026µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Indo[1,2,3-cd]pyrene	No limit applies	<0.013µg/m <sup>3</sup>		9:54-15:54 12/12/07		
A1	Naphthalene	No limit applies	0.417µg/m <sup>3</sup>		9:54-15:54 12/12/07		

- [1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values.
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
- [3] For non-continuous measurements the date and time of the sample that produced the result is given.
- [4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.
- [5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.
- [6] The result to be reported as a range based on: All congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum

Signed .....  
(authorised to sign as representative of Operator)

Date..... 4/2/08

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / PER / A2

**Reporting of Periodic Monitoring of Emissions to Air for the period from 1<sup>st</sup> June 2007 to 30<sup>th</sup> December 2007**

Emission Point	Substance / Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
A2	Particulate Matter	30 mg/m <sup>3</sup> over minimum 1 hour period	1.27mg/m <sup>3</sup>	BS EN 13284-1	16:12-17:20 14/11/07		14.16%
A2	VOC as Total Organic Carbon (TOC)	20 mg/m <sup>3</sup> over minimum 1 hour period	3.6mg/m <sup>3</sup>	BS EN 12619/13526	11:00-15:00 22/11/07	UKAS/MCERTS	92.6%
A2	Hydrogen chloride	60 mg/m <sup>3</sup> over minimum 1 hour period	0.16mg/m <sup>3</sup>	BS EN 1911	16:12-17:20 14/11/07		>100%
A2	Hydrogen fluoride	2 mg/m <sup>3</sup> over minimum 1 hour period	0.2294mg/m <sup>3</sup>	US EPA 26/26A	12:15-13:15 21/11/07		26.5%
A2	Carbon monoxide	100 mg/m <sup>3</sup> over minimum 4 hour period	3.3mg/m <sup>3</sup>	ISO12039	10:40-14:40 13/11/07	UKAS/MCERTS	>100%
A2	Sulphur dioxide	200 mg/m <sup>3</sup> over minimum 4 hour period	4.1mg/m <sup>3</sup>	BS6069-4.4	10:40-14:40 13/11/07	UKAS/MCERTS	>100%
A2	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	400 mg/m <sup>3</sup> over minimum 4 hour period	185.3mg/m <sup>3</sup>	ISO 10849	10:40-14:40 13/11/07	UKAS/MCERTS	20.2%
A2	Ammonia (NH <sub>3</sub> )	No limit applies	0.03mg/m <sup>3</sup>	EN 1911 (modified)	16:12-17:20 14/11/07		>100%
A2	Nitrous oxide (N <sub>2</sub> O)	No limit applies	<0.5mg/m <sup>3</sup>	VDI 2469-1	14:56-15:26 13/12/07		>100%
A2	Cadmium & thallium and their compounds (total)	0.05 mg/m <sup>3</sup> over minimum 30 minute, maximum 8 hour period	0.0023mg/m <sup>3</sup>	BS EN 14385:2004 & MID	15:25-17:25 22/11/07		19.8%
A2	Mercury and its compounds	0.05 mg/m <sup>3</sup> over minimum 30 minute, maximum 8 hour period	0.0007mg/m <sup>3</sup>	BS EN 13211	15:25-17:25 22/11/07		28.3%
A2	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/m <sup>3</sup> over minimum 30 minute, maximum 8 hour period	0.0301mg/m <sup>3</sup>	BS EN 14385:2004 & MID	15:25-17:25 22/11/07		16.1%
A2	Dioxins / furans (H-TEQ) <sup>6</sup>	0.1 ng/m <sup>3</sup> over minimum 6 hour, maximum 8 hour period	0.1006ng/m <sup>3</sup>	BS EN 1948	08:42-14:42 22/11/07		23.72%

Emission Point	Substance / Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
A2	Dioxin-like PCBs (WHO-TEQ Humans / Mammals) <sup>6</sup>	No limit applies	<0.00798ng/m 3		08:42:14:42 22/11/07		
A2	Dioxin-like PCBs (WHO-TEQ Fish) <sup>6</sup>	No limit applies	<0.00042ng/m 3		08:42:14:42 22/11/07		
A2	Dioxin-like PCBs (WHO-TEQ Birds) <sup>6</sup>	No limit applies	0.02000ng/m3		08:42:14:42 22/11/07		
A2	Dioxins / furans (WHO-TEQ Humans / Mammals) <sup>6</sup>	No limit applies	0.10548ng/m3		08:42:14:42 22/11/07		
A2	Dioxins / furans (WHO-TEQ Fish) <sup>6</sup>	No limit applies	0.088884ng/m 3		08:42:14:42 22/11/07		
A2	Dioxins / furans (WHO-TEQ Birds) <sup>6</sup>	No limit applies	0.131881ng/m 3		08:42:14:42 22/11/07		
A2	Poly-cyclic aromatic hydrocarbons (PAHs) Total	No limit applies	6.025µg/m3	ISO 113381-1	11:01:17:01 20/11/07		40.5%
A2	Anthanthrene	No limit applies	<0.013µg/m3		11:01:17:01 20/11/07		
A2	Benzo(a)anthracene	No limit applies	0.026µg/m3		11:01:17:01 20/11/07		
A2	Benzo(b)fluoranthene	No limit applies	0.104µg/m3		11:01:17:01 20/11/07		
A2	Benzo(k)fluoranthene	No limit applies	0.104µg/m3		11:01:17:01 20/11/07		
A2	Benzo(b)fluoranthene (2,1-d)thiophene	No limit applies	0.415µg/m3		11:01:17:01 20/11/07		
A2	Benzo(c)phenanthrene	No limit applies	0.013µg/m3		11:01:17:01 20/11/07		
A2	Benzo(g,h)perylene	No limit applies	<0.013µg/m3		11:01:17:01 20/11/07		
A2	Benzo(a)pyrene	No limit applies	<0.013µg/m3		11:01:17:01 20/11/07		
A2	Cholanthrene	No limit applies	µg/m3		11:01:17:01 20/11/07		
A2	Chrysene	No limit applies	0.039µg/m3		11:01:17:01 20/11/07		
A2	Cyclopenta(c,d)pyrene	No limit applies	<0.013µg/m3		11:01:17:01 20/11/07		
A2	Dibenzo(a,h)anthracene	No limit applies	<0.013µg/m3		11:01:17:01 20/11/07		
A2	Dibenzo(a,i)pyrene	No limit applies	<0.013µg/m3		11:01:17:01 20/11/07		
A2	Fluoranthene	No limit applies	0.415µg/m3		11:01:17:01 20/11/07		
A2	Indo(1,2,3-cd)pyrene	No limit applies	<0.013µg/m3		11:01:17:01 20/11/07		
A2	Naphthalene	No limit applies	4.924µg/m3		11:01:17:01 20/11/07		

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given.

[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.

[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

[6] The result to be reported as a range based on: All congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum

Signed .....  
(authorised to sign as representative of Operator)



Date 4/2/08

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / W1

**Annual Reporting of Periodically Monitored Emissions to Water Emission Point W1 for the year 2007**

**Periodic (Extractive) sampling results**

Parameter	Emission Point W1
Mineral oils and hydrocarbons mg/l	3.26



Signed .....  
(authorised to sign as representative of Operator)


Date..... 4/1/2008.....





Operator's comments :

All bottom ash is sent for processing and recovery by third party. Further ferrous scrap and non-ferrous scrap is recovered and the processed ash is used as an aggregate replacement. Only unsold ash is landfilled. Ash produced and processed in 2006 may still be in stock and its future use or disposal is unknown at this time.

Signed .....  
  
(authorised to sign as representative of Operator)

Date ..... 21/2/08 .....

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant


Form Number : Agency Form / WP3239SJ / WU1

Reporting of Water Usage for the year 2007

Water Source	Usage (m <sup>3</sup> )	Specific Usage (m <sup>3</sup> /t)
Mains water	189,151	0.55
Site borehole	7,093	0.02
River abstraction	N/A	
<b>TOTAL WATER USAGE</b>	<b>196,244</b>	<b>0.57</b>

Trends in Water Usage		
Year	Named Water source	Total Water usage
2006	Mains water	142,587
	Site borehole	798

Operator's comments :

Signed  .....  
 (authorised to sign as representative of Operator)

Date..... 4/12/08.....

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / EU1

**Reporting of Energy Usage for the year 2007**

Energy Source	Energy Usage Quantity	Primary Energy (MWh)	CO <sub>2</sub> Produced (tonnes)
Electricity	MWh	24,579	10,608
Natural Gas	tonnes	N/A	
Gas Oil	tonnes	674,743	2,105,198
Recovered Fuel Oil	tonnes	N/A	
<b>TOTAL</b>		<b>699,322</b>	<b>2,115,806</b>

Trends in Energy Usage			
Year	Parameter	CO <sub>2</sub> produced	CO <sub>2</sub> per unit output
2006	Electricity	10,833	0.03
	Gas Oil	1,801,666	5.51

Operator's comments :

Signed .....  
 (authorised to sign as representative of Operator)

Date: 21/10/08

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / PP1

**Reporting of Performance Indicators for the period 2007**

<b>Annual Production/Treatment</b>	
Total municipal waste incinerated (excluding separately collected fractions)	341,442 tonnes
Total other wastes Incinerated	5,638 tonnes
Electrical energy exported	211,515 MWh
Electrical energy used on installation	24,478 MWh

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / PP1

### Environmental Performance Indicators

#### Reporting of Performance Indicators

Parameter	Quarterly Average	Units
Electrical energy Imported to site		kWhrs/ tonne of waste incinerated
Fuel oil consumption		kg/ tonne of waste incinerated
Mass of bottom ash produced		kg/ tonne of waste incinerated
Mass of APC residues produced		kg/ tonne of waste incinerated
Mass of other solid residues produced (Metal)		kg/ tonne of waste incinerated
Ammonia consumption		kg/ tonne of waste incinerated
Activated carbon consumption		kg/ tonne of waste incinerated
Lime consumption		kg/ tonne of waste incinerated
Water consumption		m <sup>3</sup> / tonne of waste incinerated

Year	Parameter	Trends in Environmental Performance
2006	Electrical energy Imported to site	75
	Fuel oil consumption	0.57
	Mass of bottom ash produced	231.01
	Mass of APC residues produced	27.65
	Mass of other solid residues produced	11.33
	Ammonia consumption	6.46
	Activated carbon consumption	0.66
	Lime consumption	10.34
	Water consumption	0.57

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / PP1

Reporting of Performance Indicators for the period July 2007 to September 2007

Parameter	Quarterly Average	Units
Electrical energy Imported to site	74.76	kWhrs/ tonne of waste incinerated
Fuel oil consumption	2.44	kg/ tonne of waste incinerated
Mass of bottom ash produced	234.15	kg/ tonne of waste incinerated
Mass of APC residues produced	29.82	kg/ tonne of waste incinerated
Mass of other solid residues produced (Metal)	13.51	kg/ tonne of waste incinerated
Ammonia consumption	7.48	kg/ tonne of waste incinerated
Activated carbon consumption	1.05	kg/ tonne of waste incinerated
Lime consumption	11.11	kg/ tonne of waste incinerated
Water consumption	0.63	m <sup>3</sup> / tonne of waste incinerated

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / PP1


**Reporting of Performance Indicators for the period October 2007 to December 2007**

Parameter	Quarterly Average	Units
Electrical energy Imported to site	68.83	kWhrs/ tonne of waste incinerated
Fuel oil consumption	2.70	kg/ tonne of waste incinerated
Mass of bottom ash produced	221.08	kg/ tonne of waste incinerated
Mass of APC residues produced	28.61	kg/ tonne of waste incinerated
Mass of other solid residues produced (Metal)	13.75	kg/ tonne of waste incinerated
Ammonia consumption	7.23	kg/ tonne of waste incinerated
Activated carbon consumption	0.95	kg/ tonne of waste incinerated
Lime consumption	9.44	kg/ tonne of waste incinerated
Water consumption	0.55	m <sup>3</sup> / tonne of waste incinerated



Operator's comments :

Signed .....  
(authorised to sign as representative of Operator)



Date ..... 4/7/08 .....

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / ASH1

Reporting of Ash Composition for the period from July 2007 to September 2007

Ash Composition (LOI)	
Parameter	(%)
Bottom Ash Loss on Ignition (LOI) <sup>(1)</sup>	3.26

**Ash Composition (Metals, Dioxins, etc.)**

	Cd mg/ Kg	TI mg/ Kg	Hg mg/ Kg	Pb mg/ Kg	Cr mg/ Kg	Cu mg/ Kg	Mn mg/ Kg	Ni mg/ Kg	As mg/ Kg	Co mg/ Kg	V mg/ Kg	Zn mg/ Kg	DIOXIN		
													DIOXIN I-TEQ ng/kg	WHO-TEQ ng/kg	Humans/ mammals
Bottom Ash <sup>(1)</sup>	19.5	3.30	0.29	826.07	33.04	495.64	363.47	24.78	4.63	11.23	7.6	1817	17.18	19.82	15.32
APC Residues 1	23	<10	16	3200	52	570	210	19	29	230	10	14000	930	1438	1163
APC Residues 2	270	<10	16	4000	52	660	240	26	32	8.7	10	13000	350	539	383

Note 1: Combined sample from Line 1 and Line 2

Signed .....  
 (authorised to sign as representative of Operator)

Date..... 4/2/08

Permit Reference Number : WP3239SJ

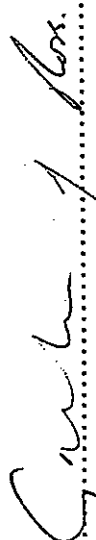
Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / ASH1

Reporting of Ash Composition for the period from October 2007 to December 2007

Ash Composition (Metals, Dioxins, etc.)																
	Cd mg/ Kg	Tl mg/ Kg	Hg mg/ Kg	Pb mg/ Kg	Cr mg/ Kg	Cu mg/ Kg	Mn mg/ Kg	Ni mg/ Kg	As mg/ Kg	Co mg/ Kg	V mg/ Kg	Zn mg/ Kg	DIOXIN			
													DIOXIN I-TEQ ng/kg	WHO-TEQ ng/kg	Humans/ mammals	
APC Residues 1	210	<10	15	3600	43	540	180	14	20	5.5	8.6	11000	546	664	921	636
APC Residues 2	180	<10	9.5	2700	43	440	180	16	18	6.2	9	8300	285	349	569	331

Signed  .....  
 (authorised to sign as representative of Operator)

Date 4/21/08.....

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / ASH2

Annual Reporting of Bottom Ash Composition from Individual Incinerator Lines

Year 2007

**Bottom Ash Composition (LOI)**

Parameter	Line 1	Line 2
Loss on Ignition (LOI) (%)	3.00	3.27

**Bottom Ash Composition (Metals, Dioxins, etc.)**

	Cd mg/K g	Tl mg/K g	Hg mg/K g	Pb mg/K g	Cr mg/K g	Cu mg/K g	Mn mg/K g	Ni mg/K g	As mg/K g	Co mg/K g	V mg/K g	Zn mg/K g	DIOXIN I-TEQ ng/kg	DIOXIN WHO-TEQ ng/kg		
														Humans/ mammals	Birds	Fish
Line 1	5.27	4.79	0.12	249.22	95.85	958.54	340.28	47.93	3.35	15.34	14.38	1006	4.62	6.27	8.32	5.07
Line 2	3.28	5.12	0.13	717.42	51.24	2818.4 3	717.42	112.74	2.46	14.35	15.89	1691	2.55	3.77	5.83	2.91

Signed .....  
(authorised to sign as representative of Operator)

Date..... 4/02/08.....

**Annual performance report for Tyseley ERF-Permit No.  
WP3239SJ -Year 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 is provided in this report:

1. Introduction.

Name of Company	Veolia Environmental Services Birmingham Ltd
Name of Plant	Tyseley ERF
Permit Number	WP3239SJ
Address	James Road Tyseley Birmingham B11 2BA
Phone number	0121 680 2000
Further information	All municipal waste that is not recycled arising in Birmingham are incinerated at this ERF, providing a long term, sustainable solution for waste disposal in the area as part of the integrated approach to waste management within Birmingham, which achieves minimal disposal of waste to landfill.

Further copies of this report are available on the web at:  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

2. Plant description.

The main purpose of the activity carried out at this facility is to incinerate, primarily, Municipal Solid Waste (MSW) as defined by EWC Code 20 03 01, recovering energy in the form of steam and electricity generating 27 MW for export to the National Grid. The permit covers the site and the entire incineration process which includes all incineration lines, waste reception and storage, waste-fuel and air supply systems, boilers, facilities for the treatment of exhaust gases, on-site facilities for handling and storage of residues and operations, recording and monitoring conditions.

### 3. Summary of plant operation.

This facility consists of two main incineration lines, each capable of processing approximately 23.5 tonnes per hour, which takes approximately 350,000 tonnes of Birmingham's rubbish each year but this, is dependent on two factors: actual operating hours and calorific value of the waste being burnt. The third incineration line processes clinical waste and other designated hazardous wastes (CWI) at a nominal rate of 600 kg/hour.

Waste Type	EWC code			
Mixed municipal Waste	20 03 01			
Separately collected fractions including packaging, food wastes, market wastes, street cleaning residues and bulky wastes.	02 01 02; 02 02 02; 02 06 01; 04 02 09; 15 01 01; 15 01 05; 16 02 14; 18 01 09; 20 01 01; 20 01 11; 20 01 38; 20 03 02;	02 01 03; 02 02 03; 02 07 04; 04 02 15; 15 01 02; 15 01 06; 16 03 04; 18 02 03; 20 01 02; 20 01 28; 20 01 39; 20 03 04;	02 01 06; 02 03 04; 03 01 01; 04 02 21; 15 01 03; 15 01 09; 16 03 06; 18 02 06; 20 01 08; 20 01 30; 20 02 01; 20 03 07.	02 01 07; 02 05 01; 03 01 05; 04 02 22; 15 01 04; 15 02 03; 16 05 05 18 02 08; 20 01 10; 20 01 32; 20 03 01;
Low grade clinical wastes categories	18 01 04			
Separately collected fractions including veterinary wastes, special packaging, absorbents, organic and inorganic wastes, cytotoxic and cytostatic medicines, wood wastes and special municipal wastes.	02 01 02; 04 02 14; 16 03 03; 18 01 10; 18 02 07; 20 01 31;	02 01 06; 04 02 16; 16 03 05; 18 02 01; 20 01 26; 20 01 37.	02 02 02; 15 01 10; 18 01 06; 18 02 02; 20 01 27;	03 01 04; 15 02 02; 18 01 08 18 02 05; 20 01 29;
All categories of healthcare and clinical wastes	18 01 01;	18 01 02;	18 01 03	
Wastes from organic chemical processes	07 01 03; 07 02 03; 07 02 13; 07 03 10; 07 04 10; 07 05 09; 07 06 03; 07 07 03; 09 01 10; 20 01 35.	07 01 04; 07 02 04; 07 03 03; 07 04 03; 07 04 13; 07 05 10; 07 06 04; 07 07 04; 09 01 11;	07 01 09; 07 02 09; 07 03 04; 07 04 04; 07 05 03; 07 05 13; 07 06 09; 07 07 09; 09 01 12;	07 01 10; 07 02 10; 07 03 09; 07 04 09; 07 05 04; 07 05 14; 07 06 10; 07 07 10. 16 05 04;

The average calorific value of general municipal waste is 9200Kj/Kg.

Plant Operational details are included in the table below.

Operating Hours (3 lines)	22953	Hours
Total Waste Incinerated	341442	Tonnes
Electricity Produced	211515	Mwh
Metals Recovered	4760	Tonnes
Incinerator Bottom Ash	78116	Tonnes
APC residues	9903	Tonnes

Ash residues (known as Incinerator Bottom Ash or IBA) are currently sent to Castle Bromwich for Reprocessing. This material is reprocessed by extracting further ferrous and non-ferrous metals and by crushing, tromelling and screening to produce a graded, quality material that is useable as substitute aggregate in such applications as road building.

Ferrous metal removed from the IBA is sent to a steel manufacturer for recycling.

Fine particulate matter, known as Air Pollution Control (APC) residues, removed from the flue gases by the fabric filter is collected and sent to specialised treatment works at Minosus owners of the Winsford rock salt mine.

#### 4. Summary of plant emissions.

All emissions to air from the two 80m high chimneys are controlled to meet the emission limits included in the PPC Permit. The flue gases released into the atmosphere are continuously monitored for Particulate Matter, TOC, Hydrogen Chloride, Oxides of Nitrogen, Carbon Monoxide, Ammonia and Sulphur Dioxide.

Bi-annual check monitoring of this equipment is carried out by approved contractors using independent extractive sampling methods, at which time emissions of Metals, Dioxins and other substances as listed below are also monitored.

Emission	Monitored
Particulate Matter	Continuously
TOC	Continuously
Hydrogen Chloride	Continuously
Oxides of Nitrogen	Continuously
Carbon Monoxide	Continuously
Sulphur Dioxide	Continuously
Ammonia	Continuously
Hydrogen Fluoride	Bi-annual
Arsenic	Quarterly

Cadmium & Thallium	Quarterly
Chromium	Quarterly
Copper	Quarterly
Mercury	Quarterly
Nickel	Quarterly
Manganese	Quarterly
Antimony	Quarterly
Lead	Quarterly
Dioxins and Furans	Bi-annually
PAH's	Bi-annually
PCB's	Bi-annually

The Continuous Emissions Monitoring equipment (CEM's) was in service during 2007 for 100% of the plant operating time. This equipment is stringently monitored with routine calibration checks.

Half hourly and daily average emission data for continuously monitored emissions is supplied to the Environment Agency on a monthly basis. This information is available to the public. This information can be found at:  
[www.veolia.co.uk](http://www.veolia.co.uk)

An example of this monthly CEM's sheet can be found as Appendix A.

Table showing the Annual total for emissions of periodically monitored pollutants

Pollutant	Unit	Annual Total
Hydrogen Fluoride	Kg	291.31
Mercury	Kg	1.8
Arsenic	Kg	3.4
Cadmium & Thallium	Kg	5.9
Chromium	Kg	3.8
Copper	Kg	9
Nickel	Kg	6.3
Manganese	Kg	33.9
Antimony	Kg	6.8
Lead	Kg	38.5
Dioxins and Furans	Kg	0.0
PAH's	Kg	3.2
PCB's	Kg	1.9



5. Summary of plant compliance.

Strict environmental controls and proven operating experience ensures that the facility is compliant with all conditions of its Pollution Prevention Control (PPC) Permit at all times. This is achieved through constant monitoring of the incineration process during all of the stages, with detailed procedures in place to enable trained staff to carry out their work in an environmentally compliant manner.

During 2007 Tyseley ERF operated within the Permitted Emission Limit Values (ELV) for 100% of operational time, thus no enforcement actions were required by the Environment Agency.

Table of plant compliances.

Breach of Permit Conditions	None
Abnormal Operations	None
Enforcement Actions	None
General Complaints	None

6. Summary of plant improvements.

Plant improvements made this year include installation of new Continuous Emissions Monitoring Equipment (CEM) along with an updated emission monitoring software package. This was carried out during the 3<sup>rd</sup> and 4<sup>th</sup> quarter of the year.

7. Summary of information made available:

Average Daily Emissions for each month are available to the public at the following website address:

[www.veolia.co.uk](http://www.veolia.co.uk)

As part of their regulatory responsibility the Environment Agency inspector visits the facility on a regular basis. There are further copies of this report available at:

[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

Local Environment Agency Office:

Upper Trent Area Office  
Sentinel House  
Wellington Crescent  
Fradley Park  
WS13 8RR

A local liaison group called the Ackers Trust gather every two months:

Ackers Trust  
Golden Hillock Road  
Small Heath  
Birmingham  
B11 2PY  
Tel: 0121 772 5111

Compiled on behalf of the Operator by:

Laura Scarman  
Environmental Technician  
Veolia ES

Appendix A

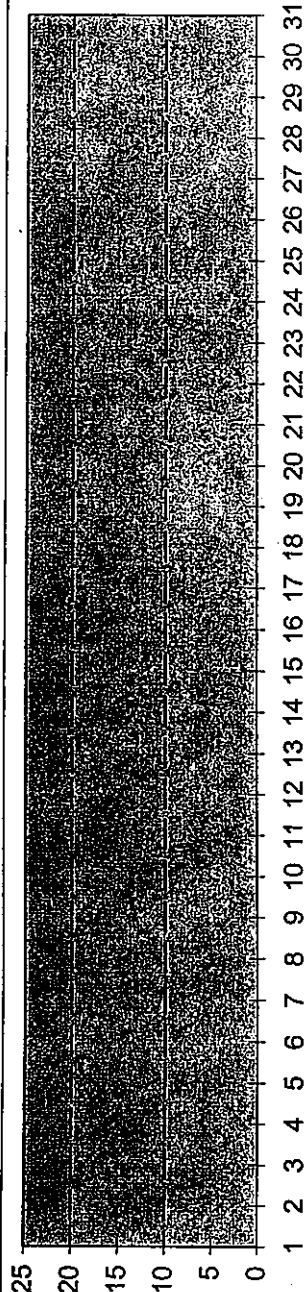
Permit Reference Number : WP3239SJ  
 Installation : Tyseley Energy from Waste Plant

Operator : Tyseley Waste Disposal Limited  
 Form Number : Agency Form / WP3239SJ / CEM.TOC / A1

Reporting of Continuously Monitored Emissions to Air for TOC Emission Point A1 for the month of ....., 20\_\_

Daily and Half-hourly  
 Average Monitoring  
 Data

- Daily average ELV
- Half-Hour average ELV
- Mean half hourly average
- Maximum half hourly average
- Minimum half hourly average
- Daily Average



Monthly summary		Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Half-hourly average	Half-Hour average ELV		20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
	Maximum half hourly average																																	
	Mean half hourly average																																	
	Minimum half hourly average																																	
Daily average	Total invalid results																																	
	Sum of exceedances																																	
	Daily average ELV		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Sum of exceedances	Monthly maximum																																	
	Monthly mean																																	
	Monthly minimum																																	
Value valid?	No. of invalid days																																	
	Sum of exceedances																																	
	Value exceeds ELV (Y/N)																																	

Signed ..... Date.....  
 (authorised to sign as representative of Operator)