VEOLIA
ENVIRONMENTAL SERVICES

1456

Mr Neil Iles
Environment Agency
Sentinel House
Wellington Crescent
Fradley Park
Lichfield
Staffs WS13 8RR

27th January 2009

Dear Mr Iles

Tyseley Energy Recovery Facility
Environmental Permit WP3239SJ

In accordance with the Environmental Permit WP3239SJ, Veolia ES Birmingham Ltd. I enclose the following reports:

- Report on the 2 extractive monitoring campaigns carried out during the last six months (A1 and A2)
- Report on the annual production and treatment and on the environmental performance indicators (PP1)
- Report on ash composition for the last six months (Ash 1)
- Report on the periodically monitored emissions to water (W1)
- Report on the waste disposal and recovery for the year (DR1)
- Report on the water usage (WU1)
- Report on the Energy usage (EU1)

I hope you find this in order. Please can you confirm receipt of these documents.

Yours sincerely,

Mr. Steve Haywood
Facility Manager
For and on behalf of Veolia ES Birmingham Ltd.

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

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 1st July to 31st December 2008

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
A1	Particulate Matter	30 mg/m^3 over minimum 1 hour period	4.61 mg/m3	BS EN 13284-1	20/11/08 09:46-10:50		19 %
A1	VOC as Total Organic Carbon (TOC)	20 mg/m^3 over minimum 1 hour period	4.0 mg/m3	BS EN 12619/13526	18/11/2008 13:40-17:45	UKAS/MCERTS	<4 %
A1	Hydrogen chloride	60 mg/m^3 over minimum 1 hour period	10.48 mg/m3	BS EN 1911	20/11/08 09:46-10:50		55 %
A1	Hydrogen fluoride	2 mg/m^3 over minimum 1 hour period	0.02 mg/m3	BS EN 15713	24/11/08 11:35-12:38		54%
A1	Carbon monoxide	100 mg/m^3 over minimum 4 hour period	13.1 mg/m3	BS EN 15058:2006	18/11/08 13:45-1:45	UKAS/MCERTS	>100 %
A1	Sulphur dioxide	200 mg/m^3 over minimum 4 hour period	7.31 mg/m3	BS6069-4.4	18/11/08 13:45-1:45	UKAS/MCERTS	>100%
A1	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	400 mg/m^3 over minimum 4 hour period	135.17 mg/m3	BS EN 14792:2005	18/11/2008 13:40-17:45	UKAS/MCERTS	17 %
A1	Ammonia (NH_3)	No limit applies	0.61 mg/m3	US EPA 26a	24/11/08 11:35-12:38		54 %
A1	Nitrous oxide (N_2O)	No limit applies	<0.02 mg/m3	VDI 2469-1	21/11/08 09:21-09:51		>100 %
A1	Cadmium & thallium and their compounds (total)	0.05 mg/m^3 over minimum 30 minute, maximum 8 hour period	0.0043 mg/m3 0.0031mg/m3	BS EN 14385 BS EN 14385	17/09/08 10:40-12:40 20/11/08 07:30-9:35		25.8 % 52 %
A1	Mercury and its compounds	0.05 mg/m^3 over minimum 30 minute, maximum 8 hour period	0.0053 mg/m3 0.0012 mg/m3	BS EN 14385 BS EN 14385	17/09/08 10:40-12:40 20/11/08 07:30-9:35		11.9 % 71 %
A1	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/m^3 over minimum 30 minute, maximum 8 hour period	0.321 mg/m3 0.05 mg/m3	BS EN 14385 BS EN 14385	17/09/08 10:40-12:40 20/11/08 07:30-9:35		5.8% 30%
A1	Dioxins / furans (I-TEQ)[6]	0.1 ng/m^3 over minimum 6 hour, maximum 8 hour period	0.028ng/m3	BS EN 1948	17/11/08 11:06-17:10		44%

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
A1	Dioxin-like PCBs (WHO-TEQ Humans / Mammals)[6]	No limit applies	0.0038ng/m3	BS EN 1948	17/11/08 11:06-17:10		100%
A1	Dioxin-like PCBs (WHO-TEQ Fish)[6]	No limit applies	0.00019ng/m3	BS EN 1948	17/11/08 11:06-17:10		100%
A1	Dioxin-like PCBs (WHO-TEQ Birds)[6]	No limit applies	0.0085ng/m3	BS EN 1948	17/11/08 11:06-17:10		71%
A1	Dioxins / furans (WHO-TEQ Humans / Mammals) [6]	No limit applies	0.029*ng*/m3	BS EN 1948	17/11/08 11:06-17:10		45%
A1	Dioxins / furans (WHO-TEQ Fish) [6]	No limit applies	0.025*ng*/m3	BS EN 1948	17/11/08 11:06-17:10		50%
A1	Dioxins / furans (WHO-TEQ Birds) [6]	No limit applies	0.035*ng*/m3	BS EN 1948	17/11/08 11:06-17:10		60%
A1	Poly-cyclic aromatic hydrocarbons (PAHs) Total	No limit applies	1.05 ng/m3	ISO 11338	19/11/08 07:43-13:50		*79.7%*
A1	Anthanthrene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Benzo{a}anthracene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Benzo[b]fluoranthene	No limit applies			11:05-17:13 06/06/08		
A1	Benzo[k]fluoranthene	No limit applies	0.034 μg/m3		11:05-17:13 06/06/08		
A1	Benzo[b]naph (2,1-d}thiophene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Benzo[c]phenanthrene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Benzo[ghi]perylene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Benzo[a]pyrene	No limit applies	0.051 μg/m3		11:05-17:13 06/06/08		
A1	Cholanthrene	No limit applies					
A1	Chrysene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Cyclopenta(c,d)pyrene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Dibenzo[ah]anthracene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Dibenzo[a,i]pyrene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Fluoranthene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Indo[1,2,3-cd]pyrene	No limit applies	0.017 μg/m3		11:05-17:13 06/06/08		
A1	Naphthalene	No limit applies	0.074 μg/m3		11:05-17:13 06/06/08		

[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 ..... Date 26.1.09
(authorised to sign as representative of Operator)

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 1st July 2008 to 31st December 2008

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
A2	Particulate Matter	30 mg/m^3 over minimum 1 hour period	1.87 mg/m3	BS EN 13284-1	20/11/08 13:18-14:20		29 %
A2	VOC as Total Organic Carbon (TOC)	20 mg/m^3 over minimum 1 hour period	0.5 mg/m3	BS EN 12619/13526	18/11/2008 09:36-13:36	UKAS/MCERTS	<4 %
A2	Hydrogen chloride	60 mg/m^3 over minimum 1 hour period	8.12 mg/m3	BS EN 1911	20/11/08 13:18- 14:20		54 %
A2	Hydrogen fluoride	2 mg/m^3 over minimum 1 hour period	0.02 mg/m3	BS EN 15713	25/11/08 09:18-10:25		54%
A2	Carbon monoxide	100 mg/m^3 over minimum 4 hour period	5.66 mg/m3	BS EN 15058:2006	18/11/08 09:36-13:36	UKAS/MCERTS	>100 %
A2	Sulphur dioxide	200 mg/m^3 over minimum 4 hour period	5.99 mg/m3	BS6069-4.4	18/11/08 09:36-13:36	UKAS/MCERTS	>100%
A2	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	400 mg/m^3 over minimum 4 hour period	170.2 mg/m3	BS EN 14792:2005	18/11/2008 09:36-13:36	UKAS/MCERTS	11.1 %
A2	Ammonia (NH_3)	No limit applies	0.69 mg/m3	US EPA 26a	25/11/08 9:18-10:25		44 %
A2	Nitrous oxide (N_2O)	No limit applies	<0.02 mg/m3	VDI 2469-1	21/11/08 08:44-09:14		>100 %
A2	Cadmium & thallium and their compounds (total)	0.05 mg/m^3 over minimum 30 minute, maximum 8 hour period	0.004 mg/m3 0.0039 mg/m3	BS EN 14385 BS EN 14385	17/09/08 14:15-16:15 20/11/08 11:03-13:05		31.2 % 46 %
A2	Mercury and its compounds	0.05 mg/m^3 over minimum 30 minute, maximum 8 hour period	0.0025 mg/m3 0.0015 mg/m3	BS EN 14385 BS EN 14385	17/09/08 14:15-16:15 20/11/08 11:03-13:05		23.9 % 62 %
A2	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/m^3 over minimum 30 minute, maximum 8 hour period	0.0568 mg/m3 0.0271 mg/m3	BS EN 14385 BS EN 14385	17/09/08 14:15-16:15 20/11/08 11:03-13:05		5.5% 21%
A2	Dioxins / furans (I-TEQ)[6]	0.1 ng/m^3 over minimum 6 hour, maximum 8 hour period	0.087ng/m3	BS EN 1948	18/11/08 10:41-16:45		40%
A2	Dioxin-like PCBs (WHO-TEQ Humans / Mammals)[6]	No limit applies	0.0053ng/m3	BS EN 1948	18/11/08 10:41-16:45		100%

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
A2	Dioxin-like PCBs (WHO-TEQ Fish)[6]	No limit applies	0.00027ng/m3	BS EN 1948	18/11/08 10:41-16:45		100%
A2	Dioxin-like PCBs (WHO-TEQ Birds)[6]	No limit applies	0.012ng/m3	BS EN 1948	18/11/08 10:41-16:45		74%
A2	Dioxins / furans (WHO-TEQ Humans / Mammals) [6]	No limit applies	0.085*ng*/m3	BS EN 1948	18/11/08 10:41-16:45		42%
A2	Dioxins / furans (WHO-TEQ Fish) [6]	No limit applies	0.067*ng*/m3	BS EN 1948	18/11/08 10:41-16:45		46%
A2	Dioxins / furans (WHO-TEQ Birds) [6]	No limit applies	0.083*ng*/m3	BS EN 1948	18/11/08 10:41-16:45		51%
A2	Poly-cyclic aromatic hydrocarbons (PAHs) Total	No limit applies	0.82 ng/m3	ISO 11338	21/11/08 07:16-13:20		33%
A2	Anthanthrene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Benzo{a}anthracene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Benzo[b]fluoranthene	No limit applies					
A2	Benzo[k]fluoranthene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Benzo[b]naph (2,1-d}thiophene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Benzo[c]phenanthrene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Benzo[ghi]perylene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Benzo[a]pyrene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Cholanthrene	No limit applies					
A2	Chrysene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Cyclopenta(c,d)pyrene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Dibenzo[ah]anthracene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Dibenzo[a,i]pyrene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Fluoranthene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Indo[1,2,3-cd]pyrene	No limit applies	0.021 μg/m3		21/11/08 07:16		
A2	Naphthalene	No limit applies	0.55 μg/m3		21/11/08 07:16		

[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 ..... Date....26.1.09.....
(authorised to sign as representative of Operator)

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 2008 to September 2008

Environmental Performance Indicators

Parameter	Quarterly Average	Units
Electrical energy Imported to site	72.7	kWhrs/ tonne of waste incinerated
Fuel oil consumption	0.18	lts/ tonne of waste incinerated
Mass of bottom ash produced	236	kg/ tonne of waste incinerated
Mass of APC residues produced	26.3	kg/ tonne of waste incinerated
Mass of other solid residues produced (Metal)	12.7	kg/ tonne of waste incinerated
Ammonia consumption	3.9	kg/ tonne of waste incinerated
Activated carbon consumption	1.02	kg/ tonne of waste incinerated
Lime consumption	9.89	kg/ tonne of waste incinerated
Water consumption	0.41	m^3/ tonne of waste incinerated

Reporting of Performance Indicators for the period October 2008 to December 2008

Parameter	Quarterly Average	Units
Electrical energy Imported to site	71.5	kWhrs/ tonne of waste incinerated
Fuel oil consumption	0.63	lts/ tonne of waste incinerated
Mass of bottom ash produced	229	kg/ tonne of waste incinerated
Mass of APC residues produced	27.5	kg/ tonne of waste incinerated
Mass of other solid residues produced (Metal)	14	kg/ tonne of waste incinerated
Ammonia consumption	5.6	kg/ tonne of waste incinerated
Activated carbon consumption	0.95	kg/ tonne of waste incinerated
Lime consumption	10.56	kg/ tonne of waste incinerated
Water consumption	0.44	m^3/ tonne of waste incinerated

Operator's comments :

Signed ..... Date.....26-1-09.....

(authorised to sign as representative of Operator)

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / PP1

Annual Production/Treatment	
Total municipal waste incinerated (excluding separately collected fractions)	348736 tonnes
Total other wastes Incinerated	10393 tonnes
Electrical energy exported	185584 kWhrs
Electrical energy used on installation	26806 kWhrs

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 2008 to September 2008

Ash Composition (LOI)	
Parameter	**(%)**
Bottom Ash Loss on Ignition (LOI) [1]	2.6

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 I-TEQ ng/kg**	**DIOXIN WHO-TEQ ng/kg**		
														Humans/ mammals	Birds	Fish
Bottom Ash [1]	3.48	<5.36	<0.13	266.32	34.29	857.36	305.43	40.72	1.39	10.18	13.93	910.94	0.4	6.4	12.06	0.82
APC Residues (1)	240	<10	8.2	3400	67	550	280	24	25	9.7	23	10000	59.3	84.0	134.4	73
APC Residues (2)	200	<10	8.1	2500	64	450	270	23	14	11	22	9000	825	119.0	177.2	108.0

Note 1: Combined sample from Line 1and Line 2

Signed ..... Date 26.1.09

(authorised to sign as representative of Operator)

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 2008 to December 2008

Ash Composition (LOI)	
Parameter	**(%)**
Bottom Ash Loss on Ignition (LOI) (1)	2.4
Bottom Ash Loss on Ignition (LOI) (2)	1.2

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 I-TEQ ng/kg	DIOXIN WHO-TEQ ng/kg		
														Humans/ mammals	Birds	Fish
Bottom Ash(1)	3.9	<6.23	<0.31	524	39	1309	343	62	2.1	12	15	1122	2.1	55.8	60.9	5.3
Bottom Ash(2)	14	<5.8	0.42	750	48	2365	692	63	5	12	18	2942	6.3	60.2	65.9	11.6
APC Residues (1)	290	<10	10	3400	76	610	280	22	19	96	23	11000	245.5	425.0	553.4	333
APC Residues (2)	320	<10	12	3700	80	660	310	22	21	11	25	12000	276.6	466.0	607.2	373

Signed .....

(authorised to sign as representative of Operator)

Date 26-1-09

Permit Reference Number : WP3239SJ

Operator : Tyseley Waste Disposal Limited

Installation : Tyseley Energy from Waste Plant

Form Number : Agency Form / WP3239SJ / DR1

Reporting of Waste Disposal and Recovery for the year ...2008.....

Waste Description	Disposal Route	Tonnes	Recovery Tonnes
1) Hazardous Wastes			
APC residues	To treatment process	9245	0
Other hazardous wastes			
Total hazardous waste		9245	
2) Non-Hazardous Wastes			
Bottom ash	To processing	79541	
Ferrous metal recovery	To scrap industry	4639	
Total non-hazardous waste		84180	
TOTAL WASTE	-	93425	

Trends in Waste Disposal and Recovery			
Year	Parameter		
	Named Waste	Total Waste	Waste per unit output
2007	APC residues	9856	
	Bottom ash	77628	
	Ferrous metal recovery	4760	

Operator's comments :

Signed .....

(authorised to sign as representative of Operator)

Date 26.6.09

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 ...2008.....

Water Source	Usage (m^3)	Specific Usage (m^3/t)
Mains water	137250	0.39
Site borehole	8862	0.03
River abstraction	NA	
TOTAL WATER USAGE		

Trends in Water Usage Year	Parameter		
	Named Water source	Total Water usage	Water per unit output
2007	Mains water	189151	0.55
	Site borehole	7093	0.02

Operator's comments :

Signed .....

(authorised to sign as representative of Operator)

Date 26.1.09

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 .....2008.....

Energy Source	Energy Usage Quantity	Primary Energy (MWh)	CO_2 Produced (tonnes)
Electricity	26806 MWh	69696	11570
Natural Gas	tonnes	NA	
Gas Oil	534.7 tonnes		1658
Recovered Fuel Oil	tonnes	NA	
TOTAL	-		

Trends in Energy Usage Year	Parameter		
	Primary Energy usage	CO_2 produced	CO_2 per unit output

Operator's comments :

Signed .....

(authorised to sign as representative of Operator)

Date 26-1-09

VEOLIA
ENVIRONMENTAL SERVICES

Mr Neil Iles
Environment Agency
Sentinel House
Wellington Crescent
Fradley Park
Lichfield
Staffs WS13 8RR

27th January 2009

Dear Mr Iles

Tyseley Energy Recovery Facility
Environmental Permit WP3239SJ

In accordance with the Environmental Permit WP3239SJ, Veolia ES Birmingham Ltd. encloses the following reports:

- Report on the annual performance of the permitted installation to comply with condition 4.1.4
- Review of fugitive emissions to comply with condition 4.1.5
- Summary report of the progress towards improvement targets from the management system to comply with condition 4.1.6

I hope you find this in order. Please can you confirm receipt of these documents.

Yours sincerely,

Mr. Steve Haywood
Facility Manager
For and on behalf of Veolia ES Birmingham Ltd

Sent to Public Register		
EA	RHQ	
LA		
EA	AREA	12/1/09

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

Annual performance report for VESB Tyseley ERF
Permit No. WP3239SJ Year 2008

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 arising in Birmingham that is not recycled is 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

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 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 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 600kg/hour.

Waste Type	***EWC***			
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 01 03;	02 01 06;	02 01 07;
	02 02 02;	02 02 03;	02 03 04;	02 05 01;
	02 06 01;	02 07 04;	03 01 01;	03 01 05;
	04 02 09;	04 02 15;	04 02 21;	04 02 22;
	15 01 01;	15 01 02;	15 01 03;	15 01 04;
	15 01 05;	15 01 06;	15 01 09;	15 02 03;
	16 02 14;	16 03 04;	16 03 06;	16 05 05;
	18 01 09;	18 02 03;	18 02 06;	18 02 08;
	20 01 01;	20 01 02;	20 01 08;	20 01 10;
	20 01 11;	20 01 28;	20 01 30;	20 01 32;
	20 01 38;	20 01 39;	20 02 01;	20 03 01;
	20 03 02;	20 03 04;	20 03 07;	
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;	02 01 06;	02 02 02;	03 01 04;
	04 02 14;	04 02 16;	15 01 10;	15 02 02;
	16 03 03;	16 03 05;	18 01 06;	18 01 08;
	18 01 10;	18 02 01;	18 02 02;	18 02 05;
	18 02 07;	20 01 26;	20 01 27;	20 01 29;
	20 01 31;	20 01 37;		
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 01 04;	07 01 09;	07 01 10;
	07 02 03;	07 02 04;	07 02 09;	07 02 10;
	07 02 13;	07 03 03;	07 03 04;	07 02 09;
	07 03 10;	07 04 03;	07 04 04;	07 04 09;
	07 04 10;	07 04 13;	07 05 03;	07 05 04;
	07 05 09;	07 05 10;	07 05 13;	07 05 14;
	07 06 03;	07 06 04;	07 06 09;	07 06 10;
	07 07 03;	07 07 04;	07 07 09;	07 07 10;
	09 01 10;	09 01 11;	09 01 12;	16 05 04;
	20 01 35;			

The average calorific value of general municipal waste is 9200 kJ/kg.

Plant Operational details are included in the table below.

Operating Hours	8760	Hours
Total Waste Incinerated	359129	Tonnes
Electricity Produced	212390	MWh
Metals Recovered	4639	Tonnes
Incinerator Bottom Ash	79541	Tonnes
APC residues	9245	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, trommelling 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 the Minosus Hazardous Waste underground storage facility in Cheshire.

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

The Continuous Emissions Monitoring equipment (CEMs) was in service during 2008 for 100% of the plant operating time. This equipment is stringently monitored with routine calibration checks and is standardised to BS EN14181:2004.

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

Table showing the Annual total for emissions of periodically monitored pollutants

Pollutant	***Unit***	***Annual Total***
Hydrogen Fluoride	Kg	22
Mercury	Kg	8.65
Arsenic	Kg	3.42
Cadmium	Kg	4.55
Chromium	Kg	30.83
Copper	Kg	20.55
Nickel	Kg	60.12
Manganese	Kg	80.86
Antimony	Kg	5.09
Lead	Kg	27.17
Thallium	Kg	2.38
Dioxins and Furans	Kg	0.00009239
PAH's	Kg	0.853
PCB's	Kg	0.0009591

5. Summary of plant compliance.

Strict environmental controls and proven operating experience ensures that the facility is compliant with all conditions of its Environmental 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 2008 VESB 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	0
Abnormal Operations	0
Enforcement Actions	0
General Complaints	1

Any complaints received at the facility are thoroughly investigated with a full report being kept as to the outcome of the investigation.

6. Summary of plant improvements.

During the year there have been no plant improvements made at this facility.

7. Summary of information made available:

Average daily emissions for each month are available to the public at the following website:

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

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:

Steve Haywood
Tyseley ERF Facility Manager.
Veolia ES Birmingham Ltd.

Fugitive Emissions report for VESB Tyseley ERF
Permit No. WP3239SJ Year 2008

For the purposes of this report, fugitive emission are taken as: "an emission to air or water from the Permitted Installation which is not controlled by an emission or background concentration limit under conditions 2.2.1.3 and 2.2.2.4 of this Permit."

The following possible fugitive emissions are considered as having potentially significant environmental impacts:

1. Odour

Incoming municipal waste is delivered in covered vehicles or containers. There is no large scale storage of fuels or stockpiles of raw materials, other than municipal waste. Odour may arise from waste tipped and stored but the roller shutter doors are closed outside delivery times and the tipping hall is under negative pressure where combustion air is drawn from above the waste storage bunker so that the odours and airborne dust from the area are drawn into the incinerator line. Odorous substances are thus destroyed by incineration and any dust retained in the bottom ash or in the APC residue.

2. Dust

General

All the site roads and surroundings are litter-picked as required and the roads swept weekly by a vacuum sweeper lorry. All work areas are hand-swept in proportion to the potential environmental impact of any emissions. As part of the management system, all staff will attempt to rectify any significant shortfall in housekeeping standards they may encounter within the site boundary.

Dust - Calcium Hydroxide

Lime is discharged from sealed bulk powder tankers into a sealed storage silo before use in the slaking process. Any small spillages during unloading are contained and cleaned up immediately.

Dust - APC Residues

APC residue is collected from the process by sealed conveyors within the Flue Gas treatment building and taken to a storage silo that is fitted with a bag filter unit, with sequential cleaning. This unit is operated and maintained in accordance with the manufacturer's instructions. The APC residue is collected following the Method Statement from our contractor. The APC residue is discharged to sealed bulk powder tankers. Any small spillages during unloading are contained and cleaned up immediately.

Dust - Bottom Ash and Ferrous scrap

These materials are handled in a wet condition to avoid dust after discharge from the boiler water-filled quench bath and stored within the Residue Hall. They are loaded by mechanical grab into sheeted tipper Lorries for transport and disposal. Any small spillages during unloading are swept up and residues washed into the plant drains.

Dust - Tipping Hall

Dust may arise from incoming wastes being tipped or stored. The Tipping Hall is under negative pressure, since the combustion air for the incineration process is drawn form the headspace above the refuse bunker. Hence most fugitive dusts will be drawn into the bunker. The roller shutter doors are closed outside delivery times and during shut-down periods and the floor is washed down regularly.

3. Noise

Fugitive noise emissions produced by deliveries of waste and normal plant operations are limited by the design of the buildings, doors are kept closed except when required for operational purposes.

General

Staff are aware of the environmental impacts of their work and exercise an appropriate standard of house-keeping, proportionate to the impacts of any potential emissions. Staff check and report daily on fugitive noise, odour and dust emissions. They are instructed to be watchful for deficiencies in house-

keeping and to report any shortfall in skill or resources, which would hinder the prevention of pollution. Mitigation may typically include additional manual sweeping or cleaning, damping down of fugitive dusts or supply of additional de-odorising equipment.

Objectives Register

Location/Department – VESB Tyseley ERF

Objective Number:	Description:	Target Completion Date:	Achieved Completion Date:	Managers Signature on Completion
1	OHSAS 18001 compliant	31 Dec 08	**31/12/2008**	**S.Haywood**
2	Behavioral approach to safety programme launched to all business lines in 2008	31 Dec 08	**12/12/2008**	**S.Haywood**
3	Integrated Management System introduced	12 Sept 08	**12 Sept 08**	**S.Haywood**
4	IOSH Managing Safely as minimum standard for all Location Managers & Supervisors	31 June 09	**12/12/2008**	**S.Haywood**
5	30% reduction in LTIFR/SR	31 Dec 08	**31/12/2008**	**S.Haywood**
6	50% improvement in near misses	31 Dec 08	**31/12/2008**	**S.Haywood**
7	All lost time accidents investigated	31 Dec 08	**31/12/2008**	**S.Haywood**
8	No environmental prosecutions	31 Dec 08	**31/12/2008**	**S.Haywood**
9	Promote Energy & Conservation	31 Dec 08	**11/08/2008**	**S.Haywood**
10	Environmental Training	31 Dec 08	**14/02/2008**	**S.Haywood**
11	Review Tipping Hall Safety Rules	31 Dec 08	**25/07/2008**	**S.Haywood**