

Permit
Number

EPR/EP3736HA

Operator

Veolia Bio Energy
Limited

Facility

Chilton BioMass
Plant

Form Number Air 1

Reporting of emissions to air (A1 to A2)	Emission Point	Quarter/Year
	A1	Q4 2016

Reports required quarterly for each emission point.

Releases to Air from Co-incinerator					
Parameter	Reference period	Monitoring frequency	Limit	Maximum	Average
Particulates	Daily average	Continuous	10 mg/m ³	9.52	6.62
TOCs (as C)	Daily average	Continuous	10 mg/m ³	0.73	0.19
Hydrogen chloride	Daily average	Continuous	10 mg/m ³	9.81	9.57
Hydrogen fluoride	1 hour period	Spot (Note [1])	2 mg/m ³	0.22	0.02
Carbon monoxide	Daily average	Continuous	50 mg/m ³	32.65	13.19
Sulphur dioxide	Daily average	Continuous	50 mg/m ³	19.19	7.79
Oxides of nitrogen	Daily average	Continuous	200 mg/m ³	180.39	155.29
Cd + Tl	½ – 8 hour	Spot (Note [1])	0.05 mg/m ³	N/A	N/A
Mercury	½ – 8 hour	Spot (Note [1])	0.05 mg/m ³	N/A	N/A
Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V	½ – 8 hour	Spot (Note [1])	0.5 mg/m ³	N/A	N/A
Ammonia	Periodic over minimum 1hr (units: mg/m ³)	Periodic (note [1])	--	N/A	N/A
Nitrous oxide (N ₂ O)	Periodic over minimum 1hr (units: mg/m ³)	Periodic (note [1])	--	N/A	N/A

Note [1]: Reports required quarterly for first year and for periods Q2 and Q4 in subsequent years

Operator comments:

Extractives Issued in Q3 September 2016 – Report No CEK-2245

Name: S. HODGSON Signed: [Signature] Date: 31/01/17

(Authorised to sign as representative of Operator)

Permit Number	EPR/EP3736HA	Operator	Veolia Bio Energy Limited
Facility	Chilton BioMass Plant	Form Number	Air 2

Reporting of emissions to air	Emission Point	Quarter/Year
(A1 to A2)	A1	Q4 2016

Reports required quarterly for first year and for periods Q2 and Q4 in subsequent years for each emission point.

Releases to Air from co-incinerator (Dioxins etc)

Parameter	Dioxins, furans, and dioxin-like PCBs ng/m ³		Limit ng/m ³ I-TEQ
	Congeners < LoD assumed to be zero (reference for limit)	Congeners < LoD assumed to be at LoD	
Dioxins and Furans [Note 1]			
I-TEQ			0.1
WHO-TEQ- Humans/Mammals			-
WHO-TEQ-Fish			-
WHO-TEQ-Birds			-
Dioxin-like PCBs [Note 1]			
WHO-TEQ- Humans/Mammals			-
WHO-TEQ-Fish			-
WHO-TEQ-Birds			-

Note [1]: Reference sampling period: average over minimum 6 hours to maximum 8 hour period

Operator comments:

Extractives issued in Q3 September 2016 – Report No CEK-2245

Name: S. Hodgson Signed: [Signature] Date: 31/01/17

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Permit Number **EPR/EP3736HA** Operator **Veolia Bio Energy Limited**

Facility **Chilton BioMass Plant** Form Number **Water and Residues 1**

Reporting of other performance indicators for Q4 2016
Quarter/Year

Reports required quarterly

Releases to Water via Outfall W1				
Parameter	Monitoring frequency	Limit	Maximum	Average
Suspended solids (Note [1])	Monthly	20 mg/l	No sample mg/l	19.45 mg/l
Total hydrocarbon oil	Monthly	15mg/l	No sample mg/l	<5.0mg/l

Note [1]: emission limits for suspended solids do not apply during or immediately after heavy rainfall or after the testing of a fire water main.

Residue quality (Note [1])				
Parameter	Limit	Results		
		Bottom ash	Boiler ash	APC Residues
Loss on ignition (Note [2])	5%	1.1%		
Metals (Sb, Cd, Ti, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Zn) and their compounds (Note [2])	---	29777mg/kg		36911.87mg/kg
Dioxins/furans (Note [2])	---	7300/6500 ng/kg		8700/6300
Dioxin-like PCBs (Note [2])	---	<5.0		<5.0
Total soluble fraction and metals (Sb, Cd, Ti, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Zn) soluble fractions (Note [3])	---	N/A		N/A

Note [1]: Sampling and analysis in accordance with Environment Agency ash sampling protocol

Note [2]: Monthly in the first year of operation, then Quarterly

Note [3]: Before use of a new disposal or recycling route

Operator comments: No surface water sample available in Dec at sample location at time of test by Ge Water

Name: J. Hoxson Signed: [Signature] Date: 31/01/17

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Chilton BioMass Plant

Form Number

Performance 1

Reporting of performance indicators for year

Q4 2016

Reports required quarterly

Performance parameters						
Parameter	Units	Q1	Q2	Q3	Q4	Total
Total waste wood incinerated	tonnes	28730	23274	25607	29469	107080
Total electrical energy generated	MWh	31789	27123	30857	33435	123204
Total electricity exported	MWh	28717	24329	27738	30091	110875
Electrical energy used on installation	KWh / tonne of waste incinerated	3.09	6.8	3.5	2.8	16.19
Fuel gas consumption	Kg / tonne of waste incinerated	3.7	5.4	2.8	1.6	13.5
Mass of Bottom Ash produced	Kg / tonne of waste incinerated	36.3	41.9	40.3	38	156.5
Mass of APC residues produced	Kg / tonne of waste incinerated	13.1	18.3	18.7	19.78	60.97
Mass of Other solid residues produced	Kg / tonne of waste incinerated	N/A	N/A	N/A	N/A	N/A
Urea consumption	Kg / tonne of waste incinerated	4.8	4.08	4.1	4.0	16.98
Minsorb consumption	Kg / tonne of waste incinerated	0.92	2.25	3.1	1.8	8.07
Lime consumption	Kg / tonne of waste incinerated	9.2	8.25	8.68	9.6	35.73
Water consumption	Kg / tonne of waste incinerated	2.85	3.2	3.5	2.9	12.45

Operator comments:

Increase in Minsorb in Q3/Q4 due to additional dosing rig usage 46kg/hr

Name: S. HODGSON Signed: S. J. [Signature] Date: 31/01/17

(Authorised to sign as representative of Operator)

Permit Number **EPR/EP3736HA** **Operator** **Veolia Bio Energy Limited**

Facility **Chilton BioMass Plant** **Form Number** **Annual Performance 1**

Reporting of other performance indicators for year **Q4 2016**

Reports required annually

Releases to air from co-incinerator	
Substance	Estimated Release (kg)
Total particulates	3220.1
TOCs	70.2
Hydrogen chloride	4984.4
Hydrogen fluoride	62.1
Carbon monoxide	10043
Sulphur dioxide	4877.5
Oxides of nitrogen	78345
Cd + Tl	0.026
Hg	0.04
Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V	7.09
Ammonia	5.31
Nitrous oxide (N ₂ O)	137.6
Dioxins and Furans	1.44
Dioxin-like PCBs	0.09
Poly-cyclic aromatic hydrocarbons	19.209

Parameter	Review carried out (yes/no)	Next review due (year)
Energy review (condition 1.2.1(b))	No	2017
Raw materials review (condition 1.3.1(c))	No	2017
Waste review (condition 1.4.1(b))	No	2017
Review of monitoring and assessments with interpretive review of the data (condition 4.2.2(a)).	Yes	2017
Review of the functioning and monitoring of the incineration plant (condition 4.2.2(d)).	Yes	2017
Operator comments including exceptional items discovered in surveys and reviews		

Permit Number	EPR/EP3736HA	Operator	Veolia Bio Energy Limited
Facility	Chilton BioMass Plant	Form Number	Annual Performance 2
Reporting of other performance indicators for year			Q4 2016

Periods of WID abnormal operation occurrence									
Date of occurrence	Incident report reference number	Duration of occurrence (hours)				Accumulated duration for year (hours)			
		limit: 4 hours per occurrence per incinerator				limit: 60 hours per year per incinerator			
		Incinerator number				Incinerator number			
		1	2	3	4	1	2	3	4

Operator comments

Nothing to report

Signed  Date... 31/01/17

(Authorised to sign as representative of Operator)