



Pen Y Bont Landfill Site (Operational)

Annual Environmental Reporting

**30/01/15
FCC Environment
Pen-Y-Bont Landfill Site
Pentre
Wrexham
LL1 5AR**

Introduction

This report provides the additional information required to be reported to Natural Resources Wales in accordance with condition 4.2.1 of PPC permit GP3830BG, variation number PP3032LN.

Condition 4.2.1 (a) – Annual monitoring data review

This will be provided in a separate report on the agreed submission date of the 31st March 2015.

Condition 4.2.1 (b) – Improvement target progress

Progress is summarized below;

FCC Environment			Best Practice - Site Performance Improvement					
Pen-Y-Bont Environmental Action Plan 2014								
Action No	Date Raised	Item Title	Action Requirements	Owner	Planned Start Date	Planned Comp Date	Status	Progress Comments
1	02/01/2014	PYBIMS 21 Environmental Monitoring	Leachate dips (Monthly)	Site Manager/ Environment Manager	02/01/2014	31/12/2014	G	As per permit leachate monitoring to be done monthly by FCC Environment monitoring team Team
2	02/01/2014	PYBIMS 12 Litter	Extend existing litter nets to minimise waste leaving site	Site Manager	02/01/2014	31/12/2014	G	Ongoing
3	02/01/2014	PYBIMS - 11 Dirt and Mud	Maintenance of wheelwash (Fortnightly)	Site Manager	02/01/2014	31/12/2014	G	This will be carried out on fortnightly basis to minimise mud being transferred onto public highway
4	02/01/2014	PYBIMS - 15 Raw and Auxillary Materials	A Monthly water meter reading will be taken. Further action required if unexpected usage occurs.	Site Manager	02/01/2014	31/12/2014	G	Ongoing
5	02/01/2014	PYBIMS - 02 Waste Acceptance	Weighbridge checks on Waste Carriers Licenses	Weighbridge Clerk	02/01/2014	31/12/2014	G	Ongoing
6	02/01/2014	PYBIMS - 02 Waste Acceptance	Weighbridge checks on Duty of Care Waste Transfer Notes	Weighbridge Clerk	02/01/2014	31/12/2014	G	Ongoing
7	02/01/2014	PYBIMS - 15 Raw and Auxillary Materials	Ensure plant usage in line with budgeted requirement, while achieving adequate compaction resulting in reduction in fuel consumption.	Site Plant Operatives	02/01/2014	31/12/2014	G	Reduce fuel costs whenever possible minimal usage required
8	02/01/2014	PYBIMS - 08 Landfill Gas	Installation of New Gas Wells and lagging on KOP's and condensate lines to prevent lines freezing ensuring gas control is maintained during adverse weather conditions.	Site Ops / Infnis	02/01/2014	31/12/2014	g	New lagging placed around condensate/Air lines to prevent freezing up - to be checked at regular intervals to ensure efficiency. New gas wells installed May 2014.
9	02/01/2014	PYBIMS - 08 Landfill Gas	Any and all odour complaints to be investigated and verification sought.	Site Manager	02/01/2014	31/12/2014	g	Ongoing
10	02/01/2014	PYBEMS 10 Leachate Control	Pumps installed on the Northern and Southern parts of site to prevent surface water run off becoming leachate.	Site Manager	02/01/2014	31/12/2014	G	Daily checks carried out and logged within Site Manager's weekly checks.
Status Key			Escalation					
			Action Pending					Action 1 week late a prompt to the action owner must be made immediately.
	G		Action in progress and on plan					
	R		Roadblock/show stopper, requires urgent attention/escalation					Action 3 weeks late, escalation to line manager and action owners line manager to be carried out immediately
	B		Action completed					

Condition 4.2.1 (c) – Energy consumption

Table S5.3 Performance Parameters			
Parameter	Frequency of assessment	Annual total	Unit
Potable water use	Annually	410m3	Cubic metres
Energy used (including for leachate treatment)	Annually	47,860	MWh of electricity
Non potable water use	Annually	N/A	Cubic metres

Condition 4.2.1 (d) – Annual production/treatment

Table S5.2: Annual production/treatment	
Leachate:	Cubic metres/year
Disposed of off site;	21,132m3
Disposed of to any on-site effluent treatment plant;	0m3
Recirculated into the waste mass.	0m3
Surface water and/or groundwater:	Cubic metres/year
Disposed of off site;	0
Disposed of to any on-site effluent treatment plant;	0
Landfill gas:	Normalised cubic metres/year
Combustion in flares;	1,129,000
Combustion in gas engines;	8,701,000
Other methods of gas utilisation.	0

Condition 4.2.1 (e) – Contamination and decontamination

No contamination events

Condition 4.2.1 (f) – Topographical survey

Provided separately; FCC drawing no. 466A209 (Plan 2A).

Condition 4.2.1 (g) – Volumetric difference between topographical surveys

51,769m³

Condition 4.2.1 (h) – Assessment of settlement behaviour

Settlement monitoring points have been established on the restored areas of the site to ensure settlement behaviour of the waste on the landfill site is recorded.

The selected points will be monitored at a minimum time period of once a year.

For reference purposes the settlement monitoring point locations will be marked on the FCC **466M169A_2014** “Settlement Monitoring Plan” (Plan 4B).

Chirk Landfill Site							
Settlement Monitoring Information for 2014 Annual Monitoring Plan: Permit Returns							
Point ID	Eastings	Northings	Height	Height	Ht Diff	Type of marker	Notes
	m	m	m	m	m		
			18/11/13	24/10/14			
466SM1	329047.016	341727.68	80.129	80.115	-0.014	Spot Level	Spot Level
466SM2	329060.646	341765.532	81.039	80.977	-0.062	Spot Level	Spot Level
466SM3	329069.895	341793.69	80.390	80.344	-0.046	Spot Level	Spot Level
466SM4	329088.879	341822.771	78.711	78.648	-0.063	Spot Level	Spot Level
466SM5	329117.599	341861.085	75.558	75.514	-0.044	Spot Level	Spot Level
466SM6	329192.028	341833.751	83.962	83.889	-0.073	Spot Level	Spot Level
466SM7	329146.008	341822.027	86.104	85.992	-0.112	Spot Level	Spot Level
466SM8	329098.845	341771.488	87.681	87.484	-0.197	Spot Level	Spot Level
466SM9	329084.911	341696.764	87.193	87.126	-0.067	Spot Level	Spot Level
466SM10	329114.452	341667.828	86.281	86.071	-0.210	Spot Level	Spot Level
466SM11	329144.626	341627.709	83.122	82.742	-0.380	Spot Level	Spot Level
466SM12	329168.095	341590.696	81.232	80.795	-0.437	Spot Level	Spot Level

The survey levels recorded for 2014 show that there has been no significant fluctuations in settlement behaviour.

Condition 4.2.1 (i) – Calculation of remaining capacity

145,140m³

Condition 4.2.1 (j) – WAC compliance testing

As per condition 2.8 of the Permit variation, we confirm that all wastes accepted for disposal under condition 2.8 have been characterised and monitored in accordance with Schedule 10 of the “Environmental Permitting (England & Wales) Regulations 2007. Any WAC testing required will be carried out in line with the procedure detailed in the “Waste Acceptance Criteria” section of FCCs internal management system, reference **EMS 3-13.02-LNF**.