#### Facility Information Summary

Licence Register Number
Name of site
Site Location
NACE Code
Class of Activity
RBME risk category
National Grid Reference (6E, 6 N)

A brief description of the activities/process at the site for the reporting year. This should include information such as production increases or decreases on site, any infrastructural changes, environmental

performance improvements which were measured during the reporting year;

W0060-03	
Whiteriver Landfill Site	
Gunstown Townland Dunleer, Co Louth	
3821	
Class 1,4,5,6,7,12,13 - Class 2,4,9,10,13	
A1	
O301450E 285625N	

Louth County Council holds a Waste Licence from the Environmental Protection Agency to operate Whiteriver landfill Site. There are two enclosed landfill gas flares in operation at the site for the flaring of landfill gas and a leachate lagoon for the treatment of leachate. There where no infrastructural changes dueing the reporting year. The acceptance of incinerator bottom ash commenced on the 14th November 2011. Objectives, targets and timescales for the year 2011 for Whiteriver Landfill Site have been completed, or are ongoing, as part of the ISO14001 Environmental Management System. These where as follows:

Reduce pressure on non-renewable fossil fuels used to generate electricity.

☑ Reduce BMW to landfill.

Minimise the release of landfill gases

#### Declaration:

All the data and information presented in this report has been checked and certified as being accurate. The quality of the information is assured to meet licence requirements.

Damien Holmes 16/04/2012
Signature Date

Signature
Group/Facility manager
(or nominated, suitably qualified and experienced deputy)

# **AER summary template-AIR emissions**

Does your site have licensed air emissions? If yes please complete table 1, 2 and 3 below for the current reporting year and answer further questions. If you do not have licenced emissions and do not complete a solvent management plan (table 5 and 6) you only need to complete table 1 fugitive emissions on site below

# Additional information Yes

# **Table 1 Fugitive emissions**

Parameter /Substance	Annual fugitive emission (kg/annum)	Quantificaton method M/C/E
Methane (CH4)	24580	С

# Periodic/Non-Continuous Monitoring

2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of Table 2 below

Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring

monitoring checklist?

checklist

Basic air

AGN2

No	
Yes	Not using the basic air monitoring checklist. Monitoring was undertaken prior to issue of basic air monitoring checklist

# Table 2: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)

Emission reference no:			ELV in licence or any revision therof	Licence Compliance criteria		Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass	% change in mass load from previous year +/-	Comments
	Nitrogen oxides				22.55						
Flare 1	(NOx/NO2)	07/12/2011	150 mg/Nm3	100 % of values < ELV		mg/Nm3	yes	отн	788.4	NA	
					2.5						
	Carbon monoxide (CO)	07/12/2011	50 mg/Nm3	100 % of values < ELV		mg/Nm3	yes	отн	87.6	NA	
	Total Organic Carbon (as				3.36						
	C)	07/12/2011	10 mg/Nm3	100 % of values < ELV		mg/Nm3	yes	отн	87.6	NA	
	Chlorine and inorganic		<u> </u>		0.03						
	compounds (as HCl)	07/12/2011	50mg/Nm3	100 % of values < ELV		mg/Nm3	yes	отн	0.876	NA	
			<u> </u>		0.05						
	Fluorine and inorganic compounds (as HF)	07/12/2011	5mg/Nm3	100 % of values < ELV		mg/Nm3	yes	ОТН	1.752	NA	
	p ( )	- , , -	,		1611		,	-			normansed
	volumetric flow	07/12/2011		100 % of values < ELV		m3	yes	ОТН			average exhaust airflow rate (Nm3
		0771272011		100 % Of Values 1221	38.95		1,00				annow rate (runs
Flare 2	Nitrogen oxides (NOx/NO2)	07/12/2011	150 mg/Nm3	100 % of values < ELV		mg/Nm3	yes	ОТН	5869.2	NΔ	
110162	(1407) 1402)	07/12/2011	130 1116/141113	100 /0 OI VAIACS NELV	1.25		1,00	0111	3003.2	10.	
	Carbon monoxide (CO)	07/12/2011	50 mg/Nm3	100 % of values < ELV		mg/Nm3	yes	отн	17.52	NA	
		07/12/2011	JO MIS/ NIM	100 % OF VAIACS VEEV	2.08		, , ,	0111	17.32	1471	
	Total Organic Carbon (as C)	07/12/2011	10 mg/Nm3	100 % of values < ELV		mg/Nm3	yes	отн	26.28	NΔ	

Chlorine and inorganic				0.02						
compounds (as HCl)	07/12/2011	50mg/Nm3	100 % of values < ELV		mg/Nm3	yes	отн	0.876	NA	
Fluorine and inorganic				0.22						
compounds (as HF)	07/12/2011	5mg/Nm3	100 % of values < ELV		mg/Nm3	yes	ОТН	1.752	NA	
				669.75						
Sulphur oxides (SOx/SO2)	07/12/2011		100 % of values < ELV		mg/Nm3	yes	отн	10074	NA	
				673						Normalised
										average exhaust
volumetric flow	07/12/2011		100 % of values < ELV		m3	yes	ОТН			airflow rate (Nm3
SELECT	·		SELECT		SELECT	SELECT	SELECT			

Note 1: Volumetric flow shall be included as a reportable parameter

	Continuous Monitoring			
4	Does your site carry out continuous air emissions monitoring?		Yes	
	If yes please review your continuous monitoring data and report the required fit Emission Limit Value (ELV)	elds below in Table 3 and compare it to its relevant		
5	Did continuous monitoring equipment experience downtime? If yes please recor	d downtime in table 3 below	Yes	
6	Do you have a proactive service agreement for each piece of continuous monitor	ring equipment?	Yes	
7	Did your site experience any abatement system bypasses? If yes	please detail them in table 4 below	No	
	Table 3: Summary of average emissions -continuous monitorin	ıg		

	Parameter/ Substance			Compliance Criteria		Annual Emission	Annual maximum		% compliance	Comments
reference no:		ELV in licence or	Period		measurement			Equipment	current	
		any revision						downtime (hours)	reporting year	
		therof								
		50 mg/Nm3								Monitored as PPM
										on flare therefore
										results not directly
										comparable to the
										icence limit of
										50mg/m3
										corrected for
										oxygen and temp. Proposed to
										rectify this to
										facilitate direct
										comparison for
										2012 AER.
Flare 1	Carbon monoxide (CO)			97 % of all annual 30-minute averages < 1.2 x ELV	ppm					
		50 mg/Nm3								Monitored as PPM
										on flare therefore
										results not directly
										comparable to the
										icence limit of
										50mg/m3
										corrected for
										oxygen and temp.
										Proposed to
										rectify this to
										facilitate direct comparison for
										2012 AER.
Flare 2	Carbon monoxide (CO)			97 % of all annual 30-minute averages < 1.2 x ELV	ppm					ZUIZ ALIN.
1.016.2	car son monoxide (co)			57 75 G. all diffidul 50 Hilliate dveluges \ 1.2 X LLV	   P P ' ' ' '					

note 1: Volumetric flow shall be included as a reportable parameter.

 Table 4: Abatement system bypass reporting table
 Bypass protocol

Date*	Duration** (hours)	Location	Reason for bypass	Corrective action

Do you have a tota	al Emission Limit Value of c	lirect and fugitive e	emissions on site	? if yes please fill out table 5		_	SELECT	
	Table 5: Solvent Management Plan Summary Total VOC Emission limit value			Please refer to linked solvent regulations to comp				
Reporting year	Total solvent input on site (kg)	Total VOC emissions to Air from entire site (direct and fugitive)		Total Emission Limit Value (ELV) in licence or any revision therof	Compliance			
					SELECT			
					SELECT			
Table 6: S	olvent Mass Balance	summary			•	_		
	(I) Inputs (kg)			(O) Outpu	its (kg)			
Solvent	(I) Inputs (kg)	_	water (kg)	Collected waste solvent (kg)	Fugitive Organic Solvent (kg)	Solvent released in other ways e.g. by-passes (kg)	Solvents destroyed onsite through physical reaction e.g. incineration(kg)	Total emission o Solvent to air (kg

Total

#### AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)

	Does your site have licensed emissions direct to surface water or direct to sewer? If yes
1	please complete table 3 and 4 below for the current reporting year and answer further
	questions. If you do not have licenced emissions you only need to complete table 1 and
	/table 2 helpy for ambient monitoring and visual inspections

Was it a requirement of your licence to carry out visual inspections on any surface water

discharges or watercourses on or near your site? If yes please complete table 2 below
summarising only any evidence of contamination noted during visual inspections

	Additional information
Yes	
SELECT	

#### **Table 1 Ambient monitoring**

		0							
Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	date	1	Licence Compliance criteria		Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT	SELECT	SELECT	

<sup>\*</sup>trigger values may be agreed by the Agency outside of licence conditions

# Table 2 Visual inspections-Please only enter details where contamination was observed.

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			SELECT		
			SELECT		

#### Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-continuous)

		Sulphate Which exceeded the hint of 250mg/ throughout the fear.
Was there any result in breach of licence requirements? If yes please provide brief details in the		<ul> <li>BOD 15,020 mg/l in April and July</li> </ul>
comment section of Table 3 below	Yes	COD 5,850 mg/l in April and July
		Not using exteral lab and assessment of results checklist. Monitoring was undertaken prior to issue of
Was all monitoring carried out in accordance with EPA		checklists. This will be undertaken for 2012.
guidance and checklists for Quality of Aqueous Monitoring External /Internal		
Data Reported to the EPA? If no please detail what areas <u>Lab Quality</u> <u>Assessment of</u>		
A require improvement in additional information boy checklist results checklist	SELECT	

# Table 3: Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring (non-continuous)

Emission reference no:	Emission released to	Parameter/ SubstanceNote 1	Type of sample	Date of Monitoring		ELV or trigger values in licence or any revision therof <sup>Note 2</sup>	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Method of analysis	Procedural	Procedural reference standard number	Annual mass load (kg)	% change in mass load from previous year +/-	
Treated Leachate	Vastewater/Sewe	BOD	discrete		Quarterly	500	All results < 1.2 x ELV	5189	mg/L	no (if no please	ed Oxygen Meter (Ele	I.S. (Irish Standard)	ISO 5667-3:2003	145.85	98	Leachate is
		COD	discrete		Quarterly	1500	All results < 1.2 x ELV	3007	mg/L	no (if no please	rophotometry (Colorin	I.S. (Irish Standard)	ISO 5667-3:2003	84.52	79	Leachate is
		Ammonia (as N)	discrete		Quarterly	900	All results < 1.2 x ELV	398.95	mg/L	yes	ito-analyser using phe	I.S. (Irish Standard)	ISO 5667-3:2003	11.21	32	Leachate is
		Sulphate	discrete		Quarterly	250	All results < 1.2 x ELV	343	mg/L	no (if no please	Ion Chromatography	I.S. (Irish Standard)	ISO 5667-3:2003	9.64	24	Leachate is
		рН	discrete		Quarterly	6.0-9.0	All results < 1.2 x ELV		pH units	yes	pH Meter (Electrode)	I.S. (Irish Standard)	ISO 5667-3:2003			Leachate is
		volumetric flow				70m3 daily		28107.78	m3/year		Weighed					Leachate is
		Temperature	discrete		Quarterly	25	All results < 1.2 x ELV		degrees C	yes		I.S. (Irish Standard)	ISO 5667-3:2003			Leachate is
Surface Water	Water	Suspended Solids	discrete		Quarterly	50	All results < 1.2 x ELV	15	mg/L	yes	Gravimetric analysis	I.S. (Irish Standard)	ISO 5667-3:2003			Leachate is

Note 1: Volumetric flow shall be included as a reportable parameter

Note 2: Where Emission Limit Values (ELV) do not apply to your licence please compare results against EQS for Surface water or relevant receptor quality standards

Continuous monitoring		Additional Information
5 Does your site carry out continuous emissions to water/sewer monitoring?	No	
If yes please summarise your continuous monitoring data below in Table 4 and compare it to its relevant Emission Limit Value (ELV)		
$_{\rm 6}$ Did continuous monitoring equipment experience downtime? If yes please record downtime in table 4 below	SELECT	
7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?	SELECT	
8 Did abatement system bypass occur during the reporting year? If yes please complete table 5 below	SELECT	

# Table 4: Summary of average emissions -continuous monitoring

Emiss		Emission released to		ELV or trigger values in licence or any revision thereof	00			,	_	% compliance current reporting year	Comments
		SELECT	SELECT		SELECT	SELECT	SELECT				
	_	SELECT	SELECT		SELECT	SELECT	SELECT				

note 1: Volumetric flow shall be included as a reportable parameter.

#### Table 5: Abatement system bypass reporting table

	Date	Duration (hours)	Location	Resultant	Reason for	Corrective	Was a report	When was this report
				emissions	bypass	action*	submitted to the	submitted?
							EPA?	
L							SELECT	

<sup>\*</sup>Measures taken or proposed to reduce or limit bypass frequency

Bund/pipe testin	ng report summary ALL IPP	C/WASTE licensed facilities	Intensive agricult	ure facilities please use alte	rnative template									
Bund testing	1	dropdown menu cli					Additional information							
Are you required by you		egrity testing on bunds and contain		se fill out table 1 below listin	g all bunds and			=						
1 containment structures 2 Please provide integrity	on site r testing frequency period					Yes SELECT	ot be leak tested due to an earthing issu	ue with the HDPE Line	r.					
	a register of bunds, underg	round pipelines (including stormw	vater and foul), Tanks, sumps	and containers? (containers	refers to "Chemstore"	No								
								_						
Table	e 1: Summary details of but	nd integrity test					_		1				_	
														Results of
									Integrity reports					retest(if in
Bund/Containment structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	current reporting year
	SELECT					SELECT			SELECT	SELECT		SELECT		
	SELECT ply with 25% or 110% containment re	ule as detailed in your licence				SELECT	Commentary		SELECT	SELECT		SELECT	4	
Has integrity testing bee 4 line with BS8007/EPA G	en carried out in accordance	ce with licence requirements and a	re all structures tested in		P	SELECT								
5 Are channels/transfer s	iuidance? ystems to remote containn	nent systems tested?		bunding and storage guide	ines	SELECT								
6 Are channels/transfer s	systems compliant in both i	integrity and available volume?				SELECT								
7 Do all sumps and chamb 8 If yes to Q7 are these fai		alarms? a maintenance and testing prograr	nme?			SELECT SELECT								
		1						_						
	und structure testing	grity testing on underground stru	cturor o a ninolinor or cumps	ate 2 if you please fill out tal	olo 3 bolow listing all			1						
1 underground structures	and pipelines on site	.s.rry restring on underground stru	ctures e.g. procures or sump.	rete . Il yes pieuse illi out tui	oc 2 below ii.xiiig uii	SELECT								
2 Please provide integrity	testing frequency period					SELECT								
				_										
Tabl	le 2: Summary details of ur	nderground structures/pipeline int	egrity test									1		
				Type of secondary										
				containment				Integrity test						
Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?		Type integrity testing	Integrity reports maintained on site?	Results of test	failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year)			
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT			
		Please use comn	nentary for additional details	not answered by tables/ que	stions above									

Yes No N/A

a)invest in capital improvermy b) operational improvements clonothing 1 2 3 4 5 7 8

reinforced concrete
Pass Pall
Storm Foul Process
tetel ceramic concrete prein of the fighese specify)
Double walled pinip | Pinich nannel | Other (pilease specify) | Other (pilease specify) | Mix (pilease specify)

Double walled pinip | Rejnich annel | Other (pilease specify) | Other (pilease specify) | Mix (pilease specify) |

Replaced section | Relined | Repaired crack | Removed obstruction | Other (pilease describle) |

Bydraulic test | Structural assessment | Other (pilease specify) | Other (pilease specify) |

Other (pilease specify) | Other (pilease specify) |

Other (pilease specify) | Other (pilease specify) |

Other (pilease specify) | Other (pilease specify) |

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Other (pilease specify) | Other (pilease specify) |

Other (pilease specify) | Other (pilease specify) |

Other (pilease specify) | Other (pilease specify)

Complaints			
		Additional informat	io
Have you received any environmental complaints in the current reporting year? If yes please complete			
summary details of complaints received on site in table 1 below	Yes		

Table :	1 Complaints summary		<u> </u>				
			Brief description of				
			complaint (Free txt <20	Corrective action< 20			Further
Date	Category	Other type (please specify)	words)	words	Resolution status	Resolution date	information
Jan-11	Odour		16 Complaints in Jan		Complete		
Feb-11	Odour		12 Cmplaints in Feb		Complete		
Mar-11	Odour		21 Complaints in March	Temporary Capping	Complete	Apr-11	
Apr-11	Odour		5 Complaints in April		Complete		
May-11	Odour		2 Complaints in May		Complete		
Jun-11	Odour		2 Complaints in June		Complete		
Jul-11	Odour		0 Complaints in July		Ongoing		
Aug-11	Odour		1 Complaint in August		Ongoing		
Sep-11	Odour		3 Complaints in Sept		Complete		
Oct-11	Odour		21 Complaints in Oct		Complete		
Nov-11	Odour		39 Complaints in Nov	10000m2 Temp Capping	Complete	25/11/2011	
Dec-11	Odour		0 Complaints in Dec		Complete		
Total complaints							
open at start of							
reporting year	0	)					
otal new		1					
complaints							
eceived during							
eporting year	122						
Total complaints		1					

	Incidents	5		
				Additional information
Have any incidents occurred on site in the current rep	orting year? Please list all inc	idents for current reporting		
year in Ta	able 2 below		SELECT	
*For information on how to report and what	What is an incident			

122

closed during

reporting year
Balance of
complaints end of
reporting year

Table 2 Incidents sur	mmary		]											
						Other	Activity in				Preventative			
			Incident category*please			cause(please	progress at			Corrective action<20	action <20		Resolution	Liklihood of
Date of occurrence	Incident nature	Location of occurrence	refer to guidance	Receptor	Cause of incident	specify)	time of incident	Communication	Occurrence	words	words	Resolution status	date	reoccurence
Jan-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Feb-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Mar-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Apr-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
May-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Jun-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Jul-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Aug-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Sep-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Oct-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Nov-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Dec-11	Trigger level reached	Perimeter gas monitoring	1. Minor	Ground	Believed to be nat	ural CO2	Normal activities	EPA	Recurring	Ongoing monitoring	N/A	Ongoing	N/A	High
Oct-11	Trigger level reached	DG2 Dust monitoring point	1. Minor	Air	Dust		Normal activities	EPA	New	Ongoing monitoring	N/A	Ongoing	N/A	Medium

Total number of	
incidents current	
year	13
Total number of	
incidents previous	
year	13
% reduction/	
increase	0

# **Groundwater / Contaminated land summary report**

- Are you required to carry out groundwater monitoring as part of your licence requirements?
- 2 Are you required to carry out soil monitoring as part of your licence requirements?
- $^{\rm 3}$  Do you extract groundwater for use on site? If yes please specify use in comment section
- $^{4}\,$  Is there contaminated land and /or groundwater on site? If yes please answer q's 5-12
- 5 Is the contamination related to operations at the facility (either current and/or historic)
- 6 Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site
- 7 Please specify the proposed time frame for the remediation strategy
- 8 Is there a licence condition to carry out/update ELRA for the site?
- 9 Has any type of risk assesment been carried out for the site?
- 10 Has a Conceptual Site Model been developed for the site?
- 11 Have potential receptors been identified on and off site?
- 12 Is there evidence that contamination is migrating offsite?

Comments

**Table 1: Upgradient Groundwater monitoring results** 

											Upward trend in
										% change in	pollutant
	Sample									average	concentration over last
Date of	location	Parameter/			Maximum	Average				concentration	5 years of monitoring
sampling	reference	Substance	Methodology	Monitoring frequency	Concentration++	Concentration+	unit	GTV's*	IGV	previous year +/-	data
2011	BH2A	Alkalinity	ICP-MS	Annual	228		mg/l		No abnormal ch	ange	data not available
		Ammonia	using phenate method	Quarterly	0.03	0.03	mg/l	0.175	0.15	-33	data not available
		Boron	ICP-MS	Annual	15.3		ug/l		1		data not available
		Calcium	ICP-MS	Annual	69.74		mg/l		200		
		Chloride	using ferricyanide method	Quarterly	16	15.75	mg/l	187.5	30	-5	data not available
		Conductivity	Conductivity Meter	Quarterly	657	626	us/cm	1875	1000	4	data not available
		Copper	ICP-MS	Annual	1.5		ug/l	1500	0.03		
		DO	Dissolved Oxygen Meter	Quarterly	43	34.75	mg/l		No abnormal ch	6	data not available
		Magnesium	ICP-MS	Annual	34.16		mg/l		50		data not available
		Manganese	ICP-MS	Annual	2.9		ug/l		0.05		data not available
		Ph	pH Meter	Quarterly	7.7	7.5			9.5	1	data not available
		Potassium	ICP-MS	Annual	1.13		mg/l		5		data not available
		evaporation		Annual	322		mg/l				data not available
		Sodium	ICP-MS	Annual	21.1		mg/l	150	150		data not available
		Sulphate		Annual	4.8		mg/l		200		data not available
		Bacteria/Coliform		Annual	20		counts per 100ml		0 counts per 100	0ml	data not available
			TOC Analyser using high		4.2						
			temperature combustion								
		TOC	method	Quarterly			mg/l		No abnormal ch	50	data not available
		TON	ICP-MS	Annual	0.46		mg/l				data not available
		Zinc	ICP-MS	Annual	4.9		ug/l		0.1		data not available

					•

<sup>.+</sup> where average indicates arithmetic mean

<sup>.++</sup> maximum concentration indicates the maximum measured concentration from all monitoring results produced during the reporting year

**Table 2: Downgradient Groundwater monitoring results** 

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	IGV	% change in average concentration previous year +/-	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
2011	BH5A	Alkalinity	ICP-MS	Annual	192		mg/l		No abnormal ch		data not available
		Ammonia	Aquakem Auto-analyser	Quarterly	0.03	0.03	mg/l	0.175	0.15	(	data not available
		Boron	ICP-MS	Annual	21.5		ug/l		1		data not available
		Calcium	ICP-MS	Annual	87.15		mg/l		200	)	data not available
		Chloride	Aquakem Auto-analyser	Quarterly	57	47.67		187.5	30	(	data not available
		Chromium	ICP-MS	Annual	0.6		ug/l				data not available
		Conductivity	Conductivity Meter	Quarterly	666	647.33		1875			data not available
		Copper	ICP-MS	Annual	1.3		ug/l	1500	0.03		data not available
		DO	Dissolved Oxygen Meter	Quarterly	54	48	mg/l		No abnormal ch	-59	data not available
		Fluoride	ICP-MS	Annual	0.19		mg/l				data not available
		Iron	ICP-MS	Annual	312		ug/l				data not available
		Magnesium	ICP-MS	Annual	12.9		mg/l		50		data not available
		Manganese	ICP-MS	Annual	12.3		ug/l		0.05		data not available
					7.8	7.7			≥ 6.5 and ≤		
		Ph	pH Meter	Quarterly					9.5	-1	data not available
		Potassium	ICP-MS	Annual	1.31		mg/l		5	5	data not available
		Residual on			456						
		evaporation		Annual			mg/l				data not available
		Sodium	ICP-MS	Annual	29.31		mg/l	150	150		data not available
		Sulphate		Annual	42		mg/l		200		data not available
		Bacteria/Coliform		Annual	0		counts per 100ml		0 counts per 100	0ml	data not available
		тос	temperature combustion	Quarterly	11.5	6.07	mg/l		No abnormal ch	26	data not available
		TON	ICP-MS	Annual	0.08		mg/l				data not available
		Zinc	ICP-MS	Annual	4.2		ug/l		0.1		data not available
							-6/				
2011	вн9	Alkalinity	ICP-MS	Annual	408		mg/l		No abnormal ch	nange	data not available
		,	Aquakem Auto-analyser		0.03	0.03	- Ci			T	
		Ammonia	1 · ·	Quarterly			mg/l	0.175	0.15		data not available
		Boron	ICP-MS	Annual	37.3		ug/l		1		data not available
		Calcium	ICP-MS	Annual	148.74		mg/l		200	)	data not available
					19	16.67	- Ci				
			Aquakem Auto-analyser								
		Chloride	using ferricyanide method	Quarterly			mg/l	187.5	30	-2	data not available
		Chromium	ICP-MS	Annual	1.8		ug/l				data not available
		Conductivity	Conductivity Meter	Quarterly	891	740.67		1875	1000	-25	data not available
		Copper	ICP-MS	Annual	1		ug/l	1500	0.03		data not available
		DO	Dissolved Oxygen Meter	Quarterly	67		mg/l		No abnormal ch		data not available
		Iron	ICP-MS	Annual	1116.4		ug/l				data not available
		Lead	ICP-MS	Annual	1.1		ug/l				
		Magnesium	ICP-MS	Annual	27.48		mg/l		50	)	data not available
		Manganese	ICP-MS	Annual	199.3		ug/l		0.05		data not available
		Nickel	ICP-MS	Annual	2		- 0, -		2.03		
					7.5	7.33			≥ 6.5 and ≤		
		Ph	pH Meter	Quarterly					9.5		data not available
		Potassium	ICP-MS	Annual	3.39		mg/l		5	:	data not available
		Residual on			754					†	- Sta Hot available
		evaporation		Annual			mg/l				data not available
		Sodium	ICP-MS	Annual	23.78		mg/l	150	150	1	data not available

	Sulphate		Annual	35.5		mg/l		200		data not available
						- Ci				
	Total									
	Bacteria/Coliform		Annual	0		counts per 100ml		0 counts per 100	ml	data not available
		TOC Analyser using high		8.4	6.13					
		temperature combustion								
	тос	method	Quarterly			mg/l		No abnormal ch	4	data not available
	TON	ICP-MS	Annual	0.08		mg/l				data not available
	Zinc	ICP-MS	Annual	3.5		ug/l		0.1		data not available
2011 BH14	Alkalinity	ICP-MS	Annual	352		mg/l		No abnormal cha	inge	data not available
	·	Aquakem Auto-analyser		0.03	0.03					
	Ammonia	using phenate method	Quarterly			mg/l	0.175	0.15	-400	data not available
	Boron	ICP-MS	Annual	29.7		ug/l		1		data not available
	Calcium	ICP-MS	Annual	81.99		mg/l		200		data not available
				20	17.33					
		Aquakem Auto-analyser								
	Chloride	using ferricyanide method	Quarterly			mg/l	187.5	30	5	data not available
	Chromium	ICP-MS	Annual	2.7		ug/l				data not available
	Conductivity	Conductivity Meter	Quarterly	725	669	us/cm	1875	1000	5	data not available
	Copper	ICP-MS	Annual	<0.05		ug/l	1500	0.03		data not available
	DO	Dissolved Oxygen Meter	Quarterly	66	54	mg/l		No abnormal ch	4	data not available
	Iron	ICP-MS	Annual	2070		ug/l				data not available
	Lead	ICP-MS	Annual	1.5		ug/l				
	Magnesium	ICP-MS	Annual	26		mg/l		50		data not available
	Manganese	ICP-MS	Annual	111.3		ug/l		0.05		data not available
	Nickel	ICP-MS	Annual	1.6						
				7.5	7.47			≥ 6.5 and ≤		
	Ph	pH Meter	Quarterly					9.5	1	data not available
	Potassium	ICP-MS	Annual	1.53		mg/l		5		data not available
	Residual on			565						
	evaporation		Annual			mg/l				data not available
	Sodium	ICP-MS	Annual	22.69		mg/l	150	150		data not available
	Sulphate		Annual	8.6		mg/l		200		data not available
								·		
	Total									
	Bacteria/Coliform		Annual	0		counts per 100ml		0 counts per 100	ml	data not available
		TOC Analyser using high		3.6	2.95					
		temperature combustion								
	тос	method	Quarterly			mg/l		No abnormal ch	46	data not available
	TON	ICP-MS	Annual	<0.08		mg/l				data not available
	Zinc	ICP-MS	Annual	4.8		ug/l		0.1		data not available

<sup>\*</sup> please note exceedance of a relevant Groundwater threshold value (GTV) at a representative monitoring point does not indicate non compliance, an exceedance triggers further investigation to confirm whether the criteria for poor groundwater chemical status are being met.

Groundwater Drinking water Surface

water EQS

regulations (private supply) GTV's

<u>Drinking water (public</u> <u>Interim Guideline</u> supply) standards

Values (IGV)

<sup>\*\*</sup>Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS)

# Table 3: Soil results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit
							SELECT
							SELECT

Data will be complied for upward trend in yearly average pollutant concentration over 5 years of monitoring data for 2012 reporting period for groundwater. Groundwater results are below the GTV for those parameters comparable. Down-gradient boreholes BH9 and BH14 exceed the IGV and DWR of 50µg/l for Manganese and the IGV of 0.2mg/l and the DWR of 200µg/l for Iron.

# **Environmental Liability Risk Assessment**

			Commentary	
1	Is it a requirement of your licence to complete an ELRA?	Yes		
2	Has an initial ELRA been submitted to and approved by the Agency?	No	ELRA Prepared and awaiting feed	back from insurance provider re cover before submission to the agency.
3	Please enter the date of submission of the initial ELRA	Jun-11		
4	Date of most recent substantial ELRA update			
5	What financial instrument/s do you have in place to cover unknown liabilities?	Other	None at present	
6	Has this financial instrument/s been verified by the Agency?	No		
7	What is the date of expiry of this financial instrument?			
8	Date of next required review of the ELRA?			

<sup>9</sup> Please list the top 10 risks assessed on your site in table 1 below

#### Table 1 ELRA summary information

Click here to access EPA									
guidance on ELRA	Operational Risk Assessment Category	SELECT							
				Mitigation measures to reduce risk			ELF	24	
				Milligat		ucerisk	ELF	KA .	
Risk ID	Potential hazards	Environmental effect	Previous risk score	Action	Date of implementation of mitigation measures	Comment	Revised Risk score for current reporting year	ELRA costing	Does the current financial provision (FP) cover the risk score?
Chemical storage	Bund failure resulting in spillage of hazardous chemicals on site	Surface water /soil/groundwater contamination	6	Infrastructural improvements	31/05/2009	Relined all bunds >10years old on site	3	€10,000	Yes
Other (please specify) Leachate Management	Leachate management - overflow of leachate from existing cells	Surface water /groundwater contamination	6	Capital investment	2012	ontinuation of capping programs	3	€1,160,000	Yes
Landfill	Fire Hydrant	Air: Release of noxious fumes. HH: human exposure. Other: damage possibly liner/capping	6	Infrastructural improvements	Oct-11	Check status with fire hydrant connection and ensure it is working properly.	3	N/A	SELECT
Other (please specify) Leachate Management	LEACHATE MANAGEMENT - Silt clogging pumps. Overflowing of sumps causing lack of containment	Leachate entering groundwater and surface water	4	Capital investment	2012	Capping of site to commence in 2010. Rationalisation of the leachate pumping system	2	included in capital investment €1,160,000	Yes
Other (please specify) Leachate Management	LEACHATE MANAGEMENT - Leachate break out due to breach in liner	Leachate entering groundwater and surface water	3	Operational controls	ongoing	Ensure adequate instruction and supervision of the installation of the wells.	3	N/A	SELECT
Other (please specify) Landfill Gas Management	LANDFILL GAS - Landfill gas migration and accumulation in structures on/off site.	Air: Release of noxious fumes. HH: human exposure, Odour, Explosions, Asphyxiation Illness, fatalities in site office	3	Nothing	ongoing	Continuing with management as existing	3	N/A	SELECT
Other (please specify) Landfill Gas Management	LANDFILL GAS - Intrusion / Vandalism at flare compound	HH:Illness due to gas/leachate exposure, burns. Air Quality Odour Climate Explosion	3	Nothing	ongoing	Continuing with management as existing	3	N/A	SELECT
Historical pollution	LEACHATE MANAGEMENT Leachate escaping from unlined cells. Contamination of groundwater from leachate	SW/GW: contamination	3	Nothing	ongoing	Continuing with management as existing	3	N/A	SELECT
Other (please specify) Leachate Management	LEACHATE MANAGEMENT - Leachate escaping from unlined cells. Damage to surrounding area due to shallow groundwater	Other: Contaminated groundwater from the unlined landfill flows down gradient of the site.	3	Nothing	ongoing	Continuing with management as existing	3	N/A	SELECT
Other (please specify) Leachate Management	Leachate management - leachate tanks rupturing and entering surface water and groundwater.	HH: human exposure. SW/GW: contamination	3	Nothing	ongoing	Continuing with management as existing	3	N/A	SELECT
Other (please specify) Leachate Management	eachate management - pipeline flanges integrity checkin	HH: human exposure. SW/GW: contamination	3	Nothing	ongoing	Continuing with management as existing	3	N/A	SELECT
SELECT			SELECT	SELECT			SELECT		SELECT
Total			SELECT	SELECT			SELECT		SELECT

# Closure Restoration Aftercare Management Plan/ Restoration plan (CRAMP/RP) a closure or restoration plan a requirement of the licence? Yes

1	was a closure or restoration plan a requirement of the licence?	Yes		
2	Has a closure plan submission been approved by the Agency?	No	Restoration and aftercare plan subm	itted to the agency in 2005. This is now being reviewed in light of the decision not to proceed with the construction of Phase 6 of the landfill. A revised plan will be completed in mid 2012.
3	What is the timescale for submission?	Mid 2012		
4	What financial instrument do you have in place to cover known liabilities?	Parent company guara	ntee	
5	What is the date of expiry of this financial instrument?			
6	What is the status of implementation of the plan?			

#### Table 2 CRAMP summary information (NON Landfill)

					Change in Risk		Does the current	Value of current
				Restoration Aftercare	category since		financial provision	financial provision
Date of submission of plan	Risk category	Closure plan in place	Clean closure	Management Plan	previous year	Increase in risk category	cover the risk score?	for site
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	

Environmental Management Programme (EMP)/Continuous Improvement Programme	

	Highlighted cells contain dropdown menu click to view		Additional Information
1	Do you maintain an Environmental Mangement System for the site. If yes, please detail in additional		
	information	Yes	ISO14001 Environmental Management System
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes	
	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance		
3	with the licence requirements	Yes	
	Do you maintain an environmental documentation/communication system to inform the public on		
4	environmental performance of the facility, as required by the licence	Yes	

<b>Environmental Management Programme (</b>	nvironmental Management Programme (EMP) report									
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes					
					Income de Facilitation de la la contraction de l					
					Improved Environmental					
Energy Efficiency/Utility conservation	Devise strategy to utilise land	50	Tender documents being prepared	Section Head	Management Practices					
					Increased compliance with					
Waste reduction/Raw material usage efficiency	Reduce BMW to landfill	100	Ceased accepting untreated w	Section Head	licence conditions					
Reduction of emissions to Air	Progressively cap Phase 5	50	50% of phase 5 either tempora	Section Head	Less complaints					

# **Noise Monitoring Report Summary**

1 Was noise monitoring a licence requirement for the AER period? If yes please fill in table 1 noise summary below Yes

2 Was noise monitoring carried out using the EPA Guidance note including completion of the "Checklist for noise measurement report" included in the guidance note as table 6?

Draft Noise Guidance

3 Does your site have a noise reduction plan

4 When was the noise reduction plan last updated?

No

No

Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

No

Table 1: Noise	monitoring sur	mmary									
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA <sub>eq</sub>	LA <sub>90</sub>	LA <sub>10</sub>	LA <sub>max</sub>	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
31/01/2012	30 minutes	N1		62	45	59		Yes	No	main noise road traffic	No
31/01/2012	30 minutes	N2		52	37	47		No	No		Yes
31/01/2012	30 minutes	N3		69	40	64		No	No	main noise road traffic a	No
31/01/2012	30 minutes	N4		75	41	77		No	No	main noise road traffic a	No
31/01/2012	30 minutes	N5		51	43	54		Yes	No		Yes
31/01/2012	30 minutes	N6		67	45	68		Yes	No	main noise sources on si	No
31/01/2012	30 minutes	N1		45	44	44		No	No	No noise audible	Yes
31/01/2012	30 minutes	N2		47	37	37		No	No	No noise audible	No
31/01/2012	30 minutes	N3		63	57	57		No	No	No noise audible	No
31/01/2012	30 minutes	N4		62	56	56		No	No	No noise audible	No
31/01/2012	30 minutes	N5		41	41	41		No	No	No noise audible	Yes
31/01/2012	30 minutes	N6		42	44	44		No	No	No noise audible	Yes

<sup>\*</sup>Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection

If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?

nothing\*\*

** please explain the reason for not taking action/resolution of noise issues	? Noise is mainly attributable to off site sources. Noise complaints are not
common fo	or the site.

Monitoring was undertaken in accordance with EPA guidance but not monitoring checklist to completed.

			Additional information
1	When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below	2010	
2	SEAI - Large  Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information  Network (LIEN)	no	
	Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in		_

Resource usage/ Energy Efficiency

Table 1 Energy usage	e on site			
Energy Use	Previous year kWh		compared to	Energy Consumption +/- % vs overall site production*
Total		·		
Electricity	184250	211800	13	
Fossil Fuels:				
Heavy Fuel Oil				
Light Fuel Oil	1796850	2138251	16	
Natural gas				
Coal/Solid fuel				
Renewable energy generated on site				

additional information

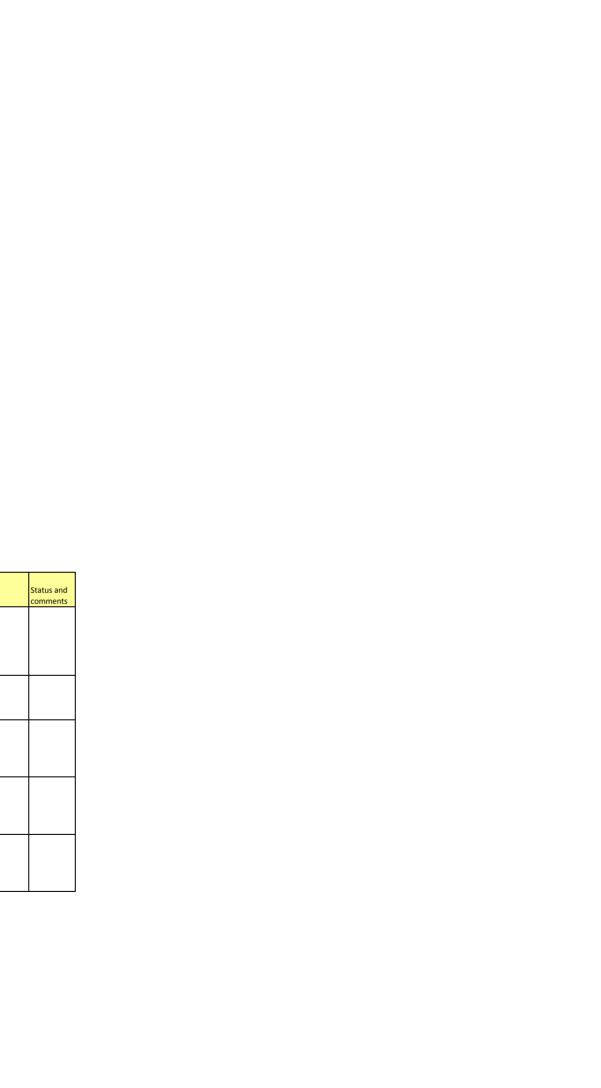
<sup>\*\*</sup> where site production information is available please enter percentage increase or decrease compared to previous year

Table 2	Water usage on site			
Water use	Previous year m3/yr.	Current year m3/yr.	· · · · · · · · · · · · · · · · · · ·	Energy Consumption +/- % vs overall site production*
Groundwater				
Surface water				
Public supply	Not available	Not available		
Total				

<sup>\*</sup> where consumption of water can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

<sup>\*\*</sup> where site production information is available please enter percentage increase or decrease compared to previous year

Table 3: Energy A	udit finding recommendati	ions	Ī					
Date of audit	Recommendations	Description of Measures proposed	Origin of measures	Predicted energy savings %	Implementation date	Responsibility	Completion date	Status and comments
		develop a suitable						
		energy policy action						
	Improve energy	plan						
	management within	and monitoring &						
Nov-1	0 the site	targeting programme.	energy audit	2	Ongoing			
	Introduce additional	sub-metering of						
	electricity sub-	separate loads will						
	metering, analysis of	provide a						
	Half Hour Consumption	detailed framework	energy audit	3	Ongoing			
		aeration paddle						
		motors are						
	Improve the	replaced with High						
	management of the	Efficiency Motors						
	aeration plant	(HEMs).	energy audit	3	Ongoing			
	Incorporate a High							
	Efficiency Motor policy							
	throughout the							
	site	Use High efficiency mo	energy audit	3	Ongoing			
	Improve control of PC's							
	& small electrical							
	equipment							
	within site office and							
	canteen	small electrical equipn	energy audit	15	Ongoing			



<sup>\*</sup> where consumption of energy can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

SECTION A-PRTR	WASTE TRANSFERS TAB- TO	BE COMPLETED BY ALL IP	PC AND WASTE FACE										
CTION R. WAS	TE ACCEPTED ONTO SITE-TO	BE COMPLETED BY ALL IN	PC AND WASTE EACH	ITIES		1							
	pted onto your site for recovery or dis			boundaries of your facility	r ?; (waste generated within your		Additional Informatio						
ies is to be cap	pted onto your site for recovery or dis otured through PRTR reporting) sils in table 1 below	prior to reco	. ,			Yes		!					
our site have any	rejected consignments of waste in th	he current reporting year? If yes p	please give a brief explanati	on in the additional inform	nation	No							
le 1 Details	of waste accepted onto your site that was of waste accepted onto	your site for recovery  Source of waste accepted	y, disposal or trea Description of waste	tment (do not inc Quantity of waste	clude wastes generated at Quantity of waste accepted in	your site, as	these will hav	e been reported i	n your PRTR workboo	Quantity of	Comments -		
nage limit for your site (total tonnes/annum)			accepted	accepted in current reporting year (tonnes)	previous reporting year (tonnes)	ease over previous year +/ - %	reduction/increase from previous reporting year	Packaging Content (%)- only applies if the waste has a packaging component	treatment operation carried out at your site and the description of this operation	waste remaining on site at the end			
	European Waste Catalogue EWC		accurate and detailed description - which furopean Waste. Catalogue FWC codes							of reporting year (tonnes)			
											Brought onto		
	07 05 04*	07- WASTES FROM ORGANIC CHEMICAL PROCESSES 20- MUNICIPAL WASTES	other organic solvents, washing liquids and mother liquars	22	22	83%		0%	SELECT		site from sister IPPC plant		
		(HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND											
		INSTITUTIONAL WASTES) INCLUDING SEPARATELY	biodegradable kitchen										
	20 01 08	COLLECTED FRACTIONS  15- WASTE PACKAGING;	and canteen waste	10	20	-50%		0%	SELECT				
		ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING											
96,00	25 02 06	NOT OTHERWISE SPECIFIED  17- CONSTRUCTION AND	waste from skips	43.5	27	61%	Operational landfill s	te. Dependent on custon	D1-Deposit into or anto land				
		DEMOLITION WASTES (INCLUDING EXCAVATED SOIL											
	17 01 07	FROM CONTAMINATED SITES  17- CONSTRUCTION AND	CND	5034	,		Rubble for roads		JS-Recycline/reclamation or oth	er inaraanic mater	riols which includes s	ail celanina resulino	in recovery o
	17 05 04	DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	Sails non waste	2973.24					R5-Recycling/reclamation or oth	er inarganic mater	ripls which includes a	ail celaning resuling	in recovery o
		19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER											
		TREATMENT PLANTS AND THE											
	19.01 12	INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	incineenter feathers	400					DI-Deposit into or onto land				
	19.01 12		- numerator pottom ash	4064					segum into or onto land				
		29-WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE											
		PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER											
	19 03 07	FOR INDUSTRIAL USE	Bulky waste	4.56					DI-Deposit into or anto land				
		29- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER											
		TREATMENT PLANTS AND THE											
	19 08 01	INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	sewage screening	526	170				DI-Deposit into or anto land				
		19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER											
		TREATMENT PLANTS AND THE											
	19 08 05	INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	water treatment sludge	2108.4	2864				DI-Deposit into or anto land		<u> </u>		
											,		
		MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER											
		INTENDED FOR HUMAN CONSUMPTION AND WATER											
	19 12 07	FOR INDUSTRIAL USE  19-WASTES FROM WASTE	wood chip	1736.82	925				ItS-Recycling/reclamation or oth	er inarganic mater	riply which includes s	ail celaning resuling	in recovery
		29- WASTES FROM WASTE MANAGEMENT FACULTIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE											
		TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER											
	19 12 12	FOR INDUSTRIAL USE	CBD fines	35012	60524				RS-Recycling/reclamation or oth	er inarganic mater	ripls which includes a	ail celaning resuling	in recovery
		(HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND											
	20 03 01	INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	MSW	65462	32151				D2-Deposit into or anto land				
		COLLECTED FRACTIONS  20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL,											
		INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY											
	20 03 03	COLLECTED FRACTIONS  20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND	ROAD SWEEPINGS	2159	3376				D1-Deposit into or anto land				
	20 03 07	INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	BULKY WASTE FROM HOUSE CLEARING	286.3					DI-Deposit into or anto land				
		SELECT				#DIV/01			SELECT				
V C-TO BE	COMPLETED BY ALL WASTE	FACILITIES (waste transfe	er stations, Composte	ers, Material recove	ry facilities etc) EXCEPT LANDE	ILL SITES							
aste provincio -	infrastructure as required by your lio	sence and approved by the A	ov in place? If on victors **-	waste provession infor-	cture required onvite	SELECT				Ī			
	infrastructure as required by your lio rastructure as required by your licenc					SELECT				1			
			, mu predite list Will			SELECT				Ī			
	resease nunance controls in place for you management system in place for you tige register on site?	y no wny?	-			SELECT				İ			
2 Waste ty	pe and tonnage-landfill only	ITES ONLY	Ban i i i		1								
e types permitted for disposal	Authorised licenced annual intake for disposal (tps)	Actual intake for disposal in reporting year (tpn)	Remaining licensed capacity at end of reporting year (m3)	Comments									
rhold (residual) trial non dous sludges	31,200 300	61,673 2,108	The estimated remaining capacity of the site is approximately										
nercial ruction and	20,800 5,000	6,283	It has been decided not										
étion trial Non- dous	34,700	5,179	the landfill. Landfilling will cease when Phase 5 is complete which is projected to be in mid										
Imported for tion purposes	4,000		projected to be in mid 2013, waste intake dependant.										
3 General i	nformation-Landfill only												
				Private or Public		Predicted date	Licence nervolte	Is there a separate cell	Accepted ashestos in reporting	Total disposal area occupied by waste	Lined disposal area occupied by	Unlined area	Comments
Area ID	Date landfilling commenced	Date hadfiling ceased	Currently landfilling	Private or Public Operated	Inert or neo-hazardous	to crase hadfiling	Licence permits asbestos	for asbestos?	Accepted asnestos in reporting year	SELECT UNIT	W2150	SELECT UNIT	Comments o liner type
and waste in mainder of Phas	Eat. 11	Ongoing	Yes	Public	Non Hazardous	Mid 2013	No			SEALT (NIT	ALECT UNIT	DARK I UNIT	
	nental monitoring-landfill on	Landfill Manual-Monitorine Sta	and and s		-								
meterological toring in Sance with fill Directive (LD)	ental monitoring-landfill on  Was leachate monitored in	Was Landfill Gas monitored in	Was SW monitored in			Wax topography of the site	Has the statement under S53(A)(5) of WMA been						
Directive (LD) d in reporting	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	the site surveyed in reporting year	WMA been submitted in reporting year	Comments					
	In accordance with waste licence of fill Manual linked above for relevant to andfill only	Landfill Directive monitoring stan	ndards										
uncapped*	Area with temporary cap			Area with waste that should be permanently capped to date under									
CT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 hs, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments							
				The following									
				The following Cells/Phases have been restored to date 2 Phase I to III									
				2 Phase 4, Cell 1 and Cell 2									
50 m2	28000 m2	79500 m2		2 Phase 4 Cell 2b has been partially capped. 2 Phase 5 Cell 3.	1m soil , SW drainage layer, GCL or LLDPE . eas drainage Layer								
e 6 Leachate	des daily cover area -Landfill only ite treated in a Waste Water Treatme	ant Blant?		-		Van	1						
hate from your s	ite treated in a Waste Water Treatme surface water? If yes please complet	ent Plant? te leachate mass load informatio	on bellow			Yes No	1						
se of leachate in eting year(m3)	Leuchaie (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/ansum)	Leachate (NB4) mass lead (kg/smmm)	Leachair (Chloride) mass load kglamum	Leachate treatment on-site	Specify type of leachate treatment	Comments						
	Please ensure that all information s	reported in the landfill gas section	on is consistent with the Lan	dfill Gas Survey submitted	in conjunction with PRTR returns	-		'					
e 7 Landfill G	ias-Landfill only				]								
			Warenday										
ptured&Treate G System m3 405729	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year	Comments									



| PRTR# : W0060 | Facility Name : Whiteriver Landfill Site | Filename : PRTR W0060\_2011(1).xls | Return Year : 2011 |

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#### Guidance to completing the PRTR workbook

# **AER Returns Workbook**

Version 1.1.13

1. FACILITY IDENTIFICATION	
Parent Company Name	Louth County Council
Facility Name	Whiteriver Landfill Site
PRTR Identification Number	W0060
Licence Number	W0060-03

REFERENCE YEAR 2011

Electrice Number	
Waste or IPPC Classes of Activity	
No.	class_name
	Specially engineered landfill, including placement into lined
	discrete cells which are capped and isolated from one another and
	the environment.
3.1	Deposit on, in or under land (including landfill).
	Repackaging prior to submission to any activity referred to in a
3.12	preceding paragraph of this Schedule.
	Storage prior to submission to any activity referred to in a
	preceding paragraph of this Schedule, other than temporary
	storage, pending collection, on the premises where the waste
3.13	concerned is produced.
	Surface impoundment, including placement of liquid or sludge
3.4	discards into pits, ponds or lagoons.
	Biological treatment not referred to elsewhere in this Schedule
	which results in final compounds or mixtures which are disposed of
2.0	by means of any activity referred to in paragraphs 1. to 10. of this
3.6	Schedule.
	Physico-chemical treatment not referred to elsewhere in this
	Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by
	means of any activity referred to in paragraphs 1. to 10. of this
2.7	Schedule.
3.1	The treatment of any waste on land with a consequential benefit for
4.10	an agricultural activity or ecological system.
4.10	Storage of waste intended for submission to any activity referred to
	in a preceding paragraph of this Schedule, other than temporary
	storage, pending collection, on the premises where such waste is
4 13	produced.
	Recycling or reclamation of organic substances which are not used
	as solvents (including composting and other biological
4.2	transformation processes).
4.4	Recycling or reclamation of other inorganic materials.
	Use of any waste principally as a fuel or other means to generate
	energy.
	Whiteriver & Gunstown Townland
Address 2	
	Co Louth
Address 4	
	Louth
Country	
Coordinates of Location	
River Basin District	
NACE Code	
	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	
AER Returns Contact Email Address	
AER Returns Contact Position	
AER Returns Contact Telephone Number	
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	
Production Volume Units	
Number of Installations	
Number of Operating Hours in Year	
Number of Employees User Feedback/Comments	9
User Feedback/Comments Web Address	
vveb Address	

# 2. PRTR CLASS ACTIVITIES

Z. I KIK OLAGO ACTIVITLE	
Activity Number	Activity Name
5(d)	Landfills
	Installations for the disposal of non-hazardous waste
5(d)	Landfills
	General

#### 3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	No
Have you been granted an exemption?	No
If applicable which activity class applies (as per	
Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being	
used?	

#### SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

		RELEASES TO AIR	Please enter all quantities in this section in KGs								
		POLLUTANT		METH	IOD					QUANTITY	
				Method Used							
										A (Accidental)	F (Fugitive)
	No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	T (Total) KG/Year	KG/Year	KG/Year
03		Carbon dioxide (CO2)	С	OTH	Gassim Model		0.0	0.0	12500000.0	0.0	12500000.0
					Gassim Model - CH4						
01		Methane (CH4)	С	OTH	Flared		0.0	0.0	24580.0	0.0	24580.0
55		1,1,1-trichloroethane	С	OTH	Gassim Model		0.0	0.0	59.4	0.0	59.4
04		Hydro-fluorocarbons (HFCs)	С	OTH	Gassim Model		0.0	0.0	46.9	0.0	46.9
							0.0	0.0	0.0	0.0	0.0

<sup>\*</sup> Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### SECTION B : REMAINING PRTR POLLUTANTS

		RELEASES TO AIR				Please enter all quantities	in this section in KGs					
		POLLUTANT	METHOD							QUANTITY		
ı				Me	thod Used							
										A (Accidental)	F (Fugitive)	
	No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	T (Total) KG/Year	KG/Year	KG/Year	
	15	Chlorofluorocarbons (CECs)	C	OTH	Gassim Model	0.0	0.0	0.0	67.5	5 0	0	67.5

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

	RELEASES TO AIR				Please enter all quantities	in this section in K	Gs		
	POLLUTANT		ı	METHOD			QUA	NTITY	
				Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Ad	ccidental) KG/Year	F (Fugitive) KG/Year
					0.0		0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KGUy for Section A. Sector specific PRTR pollutants above. Please complete the table below.

Landfill:
Please enter summary data on the
quantities of methane flared and / or
utilia a d

quantities of methane flared and / or						
utilised			Met	hod Used		
				Designation or	Facility Total Capacity	1
	T (Total) kg/Year	M/C/E	Method Code	Description	m3 per hour	1
Total estimated methane generation (as per						1
site model)	2672150.0			Predicted from model	N/A	1
Methane flared	2647570.0	M	Measured from Flare	Reported in landfill gas	0.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section						1
A above)	24580.0	С	Gassim - Measured	As previously reported	N/A	

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facil

	RELEASES TO WATERS				Please enter all quantities	in this section in KGs		
PO	LLUTANT						QUANTITY	
				Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Link to previous years emissions data

**SECTION B: REMAINING PRTR POLLUTANTS** 

	RELEASES TO WATERS				Please enter all quantities	in this section in KG:	5	
Po	DLLUTANT						QUANTITY	
				Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

<sup>\*</sup> Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

	RELEASES TO WATERS				Please enter all quantities	in this section in KGs	5	
PO	LLUTANT						QUANTITY	
				Method Used				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	) ((	0.0	0.0

<sup>\*</sup> Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

| PRTR# : W0060 | Facility Name : Whiteriver Landfill Site | Filename : PRTR W0060\_2011(1).xls | R

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**SECTION A: PRTR POLLUTANTS** 

	OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR V	WASTE-WATER TRE	EATMENT OR SE	WER	Please enter all quantities	in this section in KG	s		
	POLLUTANT			METHOD			QU	IANTITY	
				Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	Α (	Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	)	0.0	0.0	0.0

<sup>\*</sup> Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

OLOTION B: REMAINING   OLLOTAIN EIIII	ololito (us required ili your Election)							
OFFSITE TRAN	SFER OF POLLUTANTS DESTINED FOR WASTE-W	ATER TRE	ATMENT OR SEWER		Please enter all quantities	in this section in KGs		
PO	LLUTANT		METHO	D			QUANTITY	
			Met	nod Used				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			•		0.0	0	0.0	0.0

<sup>\*</sup> Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### **SECTION A: PRTR POLLUTANTS**

	RELEAS	SES TO LAND			Please enter all quar	tities in this section in K	Gs	
	POLLUTANT		N	IETHOD			QUANTITY	
				Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidenta	l) KG/Year
						0.0	0.0	0.0

<sup>\*</sup> Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### SECTION B: REMAINING POLLUTANT EMISSIONS (as required in your Licence)

	REL	EASES TO LAND			Please enter all quant	ities in this section in Ko	Gs
	POLLUTANT		MET	HOD			QUANTITY
			1	Method Used			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
						0.0	0.0 0.0

<sup>\*</sup> Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE	PRTR# : W0060	Facilit
--	---------------	---------

| PRTR# : W0060 | Facility Name : Whiteriver Landfill Site | Filename : PRTR W0060\_2011(1).xls | Return Year : 2011 |

	Please enter all quantities on this sheet in Tonnes											
			Quantity (Tonnes per Year)		Waste		Method Used	-	Haz Waste: Name and Licence/Permit No of Next Destination Facility None Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste: Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination
	European Waste				Treatment			Location of				
Transfer Destination	on Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment				
landfill leachate other than those Within the Country 19 07 03 No 28107.78 mentioned in 19 07 02 D9							Weighed	Offsite in Ireland		Marsh Road, Drogheda, Co. Louth,., Ireland		

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Link to previous years waste data
Link to previous years waste summary data & percentage change

<sup>\*</sup> Select a row by double-clicking the Description of Waste then click the delete button