

Facility Information Summary

AER Reporting Year	2017
Licence Register Number	W0025-04
Name of site	Powerstown Landfill
Site Location	Powerstown, Carlow
NACE Code	3821
Class/Classes of Activity	A2
National Grid Reference (GE, 6 N)	E271,000 N168,800

A description of the activities/processes at the site for the reporting year. This should include information such as production increases or decreases on site, any infrastructural changes, environmental performance which was measured during the reporting year **and an overview of compliance with your licence listing all exceedances of licence limits (where applicable) and what they relate to e.g. air, water, noise.**

Powerstown Landfill accepted waste for the duration of 2017. Waste was accepted from commercial hauliers, general public, Kilkenny Co Co, Wicklow Co Co and Carlow Co Co. A total of 53924 tonnes of material was accepted at the site during 2017. 52854 tonnes of material was landfilled. This included 15490 tonnes of material that was used for landfill site engineering purposes such as daily cover, upgrade of roadways, maintenance of clay banks, placement of temporary cover. 1070 tonnes of recyclable material was accepted on site during 2017. Details of this are presented in the Waste Section of this report. Compliance monitoring was carried out as per licence requirements during 2017. This included monitoring of groundwater, surface water, leachate, landfill gas, flare emissions, noise, dust, VOC surface emissions. Reports were uploaded on the EDEN web portal for all monitoring events. Bund Integrity testing was completed during 2017 at the leachate tank, leachate lagoon, and 2 bunds on-site. Details of testing are presented in the Bund Testing section of this report. A total of 13410 tonnes of leachate was removed from the site during 2017. This is a reduction of 6241 tonnes compared to 2016. Where a trigger level or ELV was exceeded during 2017 an incident report was forwarded to the EPA. Details of these are presented in the incidents section of this report.

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.

<i>Mary Walsh</i>	<i>28/06/18</i>
Signature	Date
Group/Facility manager (or nominated, suitably qualified and experienced deputy)	

Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If **you do not have** licensed emissions and **do not complete a solvent management plan** (table A4 and A5) you **do not need** to complete the tables

	Additional Information
Yes	

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 TableA1 below

No	

3 Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? [Basic air monitoring checklist](#) [AGN2](#)

Yes	

Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision thereof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable
LFGF1	Carbon monoxide (CO)	Annual		No 30min mean can exceed 150 the ELV	65.93	mg/Nm3		EN 15058:2004	70.97	Increased flow rate
LFGF1	Nitrogen oxides (NOx/NO2)	Annual			80.52	mg/Nm3	yes	EN 14792:2005	673	Increased flow rate
LFGF1	Sulphur oxides (SOx/SO2)	Annual			221.5	mg/Nm3		OTH	1851	Increased flow rate
LFGF1	Fluorine and Inorganic compounds (as HF)	Annual			<0.32	mg/Nm3		ISO/DIS 15713:2004	<2.7	
LFGF1	Chlorine and Inorganic compounds (as HCl)	Annual			<0.32	mg/Nm3		EN 1911-1 to 3:2003	<2.7	
LFGF1	Volatile organic compounds (as TOC)	Annual			5.8	mg/Nm3		AIT	43.5	Increased flow rate
LFGF1	Volumetric flow	continuous			728	m3/hr		OTH		

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

AIR-summary template	Lic No:	W0025-04	Year	2017
Continuous Monitoring				

4 Does your site carry out continuous air emissions monitoring?
 Continuous monitoring is carried out at the landfill gas flare LFGE1 for temperature, flow, CH₄, CO₂, CO and O₂. There are no ELVs for these parameters. The results were summarised and incorporated into the landfill gas survey for the site.

If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)

5 Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	Yes	Downtime of approximately 52 hours during 2017.
6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?	Yes	
7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	No	

Table A2: Summary of average emissions -continuous monitoring

Emission reference no:	Parameter/ Substance	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
		ELV in licence or any revision thereof	SELECT	SELECT					
			SELECT	SELECT					
			SELECT	SELECT					
			SELECT	SELECT					
			SELECT	SELECT					

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

Table A3: Abatement system bypass reporting table

Date*	Duration**(hours)	Location	Bypass protocol Reason for bypass	Impact magnitude	Corrective action

* this should include all dates that an abatement system bypass occurred

** an accurate record of time bypass beginning and end should be logged on site and maintained for future Agency inspections please refer to bypass protocol link

Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licensed emissions you only need to complete table W1 and or W2 for storm water analysis 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 W2 below summarising only any evidence of contamination noted during visual inspections

Yes	Licensed Emissions from Surface Water Pond Outlet (SWLO)
Yes	No evidence of any contamination

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licensed Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	

*trigger values may be agreed by the Agency outside of licence conditions

Table W2 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		

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

Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below

No. Additional Information

Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to the EPA? If no please detail what areas require improvement in additional information box

External/Internal Lab Quality Assessment of results checklist

Table W3. Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring (non-continuous)

Emission reference no:	Emission released to	Parameter/Substance/Code 1	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision thereof**	Licensed Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Method of analysis	Procedural reference source	Procedural reference standard number	Annual mass load (kg)	Comments
SWLO	Water	Ammonia (as N)	discrete	quarterly	SELECT	0.5	SELECT	<0.2 for Q1 and Q3 2.98mg/l for Q4	mg/L	yes	DISCRETE METHODS	"Standard Methods"		Annual ammonia levels detected during Q4 2017. Investigation opened with laboratory	
SWLO	Water	Dissolved Oxygen	discrete	quarterly				85.25	% sat	yes	Dissolved Oxygen Meter (Electrode)	APHA /AWWA "Standard Methods"		averaged quarterly results	
SWLO	Water	Conductivity	discrete	quarterly		1000		842	µS/cm@25°C	yes	Conductivity Meter (Electrode)	APHA /AWWA "Standard Methods"		averaged quarterly results	
SWLO	Water	COD	discrete	quarterly				11.1	mg/L			ISO		averaged quarterly results	
SWLO	Water	Chlorides (as Cl)	discrete	quarterly		50		27.97	mg/L	yes	Spectrophotometry (colorimetry)	EPA methods		averaged quarterly results	
SWLO	Water	pH	discrete	quarterly		6.5-9.5		7.6	pH units		pH Meter (Electrode)	APHA /AWWA "Standard Methods"		averaged quarterly results	
SWLO	Water	Suspended solids	discrete	quarterly		35		2.76	mg/L	yes	gravimetric analysis	APHA /AWWA "Standard Methods"		averaged quarterly results	
SWLO	Water	Temperature	discrete	quarterly		25		12.15	degrees C		thermometry	APHA /AWWA "Standard Methods"		averaged quarterly results	
SWLO	Water	BOD	discrete	quarterly		0.035		2	mg/L		Dissolved Oxygen Meter (Electrode)	APHA /AWWA "Standard Methods"		averaged quarterly results	
SWLO	Water	Orthophosphate as P	discrete	quarterly				<0.02	mg/L		DISCRETE METHODS	APHA /AWWA "Standard Methods"		annual	
SWLO	Water	Total Oxidised Nitrogen (TON)	discrete	quarterly				4.79	mg/L		DISCRETE METHODS	APHA /AWWA "Standard Methods"		annual	

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)				Lic No:	W0025-04	Year	2017			
SWLO	Water	Sulphate	discrete	250		83.2	mg/L	DISCRETE METHODS	APHA /AWWA "Standard Methods"	annual
SWLO	Water	Alkalinity	discrete			265	mg/L	DISCRETE METHODS	APHA /AWWA "Standard Methods"	annual

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 EGS for Surface water or relevant receptor quality standards

Continuous monitoring

Does your site carry out continuous emissions to water/sewer monitoring?
 Continuous monitoring for TOC is carried out at the inlet and outlet of the surface water pond. However, there is no ELV set in the licence for TOC.

If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)

6 Did continuous monitoring equipment experience downtime? If yes please record downtime in Table W4 below
 SELECT
 7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?
 Yes
 8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below
 N/A

Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission released to	Parameter/Substance	ELV or trigger values in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission for current reporting year (kg)	% change +/- from previous reporting year	Monitoring Equipment downtime (hours)	Number of ELV exceedences in reporting year	Comments
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT					
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT					

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

Table W5: Abatement system bypass reporting table

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

*Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline testing template

LIC No:

W0025-04

Year

2017

Bund testing

Dropdown menu click to see options

Are you required by your licence to undertake integrity testing on bunds and containment structures? If yes please fill out table B1 below listing all new bunds and containment structures on site. In addition to all bunds which failed the integrity test all bunding structures which failed including mobile bunds must be listed in the table below. Please include all bunds outside the licensed testing period (mobile bunds and chemstore included)

Additional Information

1. Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to 'Chemstore' type units and mobile bunds)
2. How many bunds are on site?
3. How many of these bunds have been tested within the required test schedule?
4. How many mobile bunds are on site?
5. How many of these mobile bunds have been tested within the required test schedule?
6. How many sumps on site are included in the integrity test schedule?
7. How many of these sumps are included in the integrity test schedule?
8. How many of these sumps are included in the integrity test schedule?
9. How many of these sumps are included in the integrity test schedule?
10. How many of these sumps are included in the integrity test schedule?
11. Do all sumps and chambers have high level liquid alarms?
12. If yes to Q11 are these false alarm systems included in a maintenance and testing programme?
13. Is the Fire Water Retention Pond included in your integrity test programme?

Yes	
3 years	
No	
3	leachate tank, leachate lagoon, heating oil
0	
N/A	
0	

No	
SELECT	
N/A	

Table B1: Summary details of bund/containment structure integrity test

Bund/Containment structure ID	Type	Specify Other Type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest (if in current reporting year)
LT Leachate Tank	reinforced concrete	glass lined tank	leachate	430	400	Hydraulic test		Jun-17	Yes	Pass				
UG Leachate Lagoon	other (please specify)	concrete lagoon, lined and covered with HDPE liner	leachate	350	350	Hydraulic test		Mar-17	Yes	Pass				
Heating Oil Bund	reinforced concrete	aluminium sheathed enclosure	kerosene heating oil		1000	Structural assessment		Mar-17	Yes	Pass				

14. Capacity required based on 25% or 100% containment rate as detailed in your licence
15. Line with ASS007/58 Guidelines
16. Are channel/transfer systems to remote containment systems tested?
17. Are channel/transfer systems compliant in both integrity and available volume?

Pipelines/underground structure testing

1. Are you required by your licence to undertake integrity testing* on underground structures e.g. pipelines or sumps etc? If yes please fill out table 2 below listing all underground structures and pipelines on site which failed the integrity test and all which have not been tested within the integrity test period as specified
2. Please provide integrity testing frequency period

Yes	
3 years	

Table B2: Summary details of pipelines/underground structures integrity test

Structure ID	Type system	Material of construction:	Does this structure have secondary containment?	Type of secondary containment	Type Integrity testing	Integrity reports maintained on site?	Results of test	Integrity 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				

Please use commentary for additional details not answered by tables/ questions above

Requirements	Comments
1 Are you required to carry out groundwater monitoring as part of your licence requirements?	yes
2 Are you required to carry out soil monitoring as part of your licence requirements?	yes
3 Do you extract groundwater for use on site? If yes please specify use in comment section	no
4 Do monitoring results show that groundwater generic assessment criteria such as GTVs or GCVs are exceeded or is there an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring guideline Template Report (link in cell 6) and submit separately through ADRM as a license return AMD answer questions 5-12 below.	A Tier 3 Risk Assessment was prepared during 2014 and a preliminary hydrogeological Assessment was prepared in 2015. The conceptual site model for the site was presented in these.
5 Is the contamination related to operations at the facility (either current and/or historic) remediation strategies proposed/undertaken for the site	yes
6 Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the site	yes
7 Please specify the proposed time frame for the remediation strategy	SELECT
8 Is there a licence condition to carry out/upgrade EIAA for the site?	yes
9 Has any type of risk assessment been carried out for the site?	yes
10 Has a Conceptual Site Model been developed for the site?	yes
11 Have potential receptors been identified on and off site?	yes
12 Is there evidence that contamination is migrating offsite?	yes

Table 1: Upgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration**	Average Concentration**	Unit	GTVs*	SELECT**	Upward trend in pollutant concentration over last 5 years of monitoring data
2017	RCA2	Temp		quarterly	11.6	11.3	°C			no
		Dissolved Oxygen		quarterly	82	76.5	%			no
		pH		quarterly	7.3	7.3	pH units			no
		Conductivity		quarterly	880	860	µS/cm	1875		no
		Ammonia Chloride		quarterly	1.33	0.79	mg/l N	0.175		no
		TOC		quarterly	20.7	20.34	mg/l	187.5		no
		Ortho Phosphate		quarterly	<3	<3	mg/l			no
		TON		annual	<0.02		mg/l P			no
		Fluoride		annual	7.31		mg/l F			no
		Sulphate		annual	<0.5		mg/l S			no
		Alkalinity		annual	83.4		mg/l SO4	187.5		no
		Boron		annual	410		mg/l CaCO3			no
		Cadmium		annual	53.4		ug/l	750		no
		Calcium		annual	<0.08		ug/l	3.75		no
		Chromium		annual	146		ug/l	37.5		no
		Copper		annual	0.624		ug/l			no
		Lead		annual	<0.019		ug/l			no
		Magnesium		annual	<0.2		ug/l	18.75		no
		Manganese		annual	15.8		ug/l			no
		Mercury		annual	2.87		ug/l	0.75		no
		Nickel		annual	<0.01		ug/l			no
		Potassium		annual	<0.4		SELECT	15		no
		Sodium		annual	1.82		mg/l			no
		Zinc		annual	8.01		ug/l	150		no
		Total Cyanide residue on desorption		annual	<0.05		mg/l			no
		Evaporation		annual	992		mg/l			no

* Where average indicates arithmetic mean
 ** 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/Temp	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV%*	SELECT**	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
2017	GWB	Dissolved Oxygen		quarterly	12.5	51	cc			no
		pH		quarterly	65	7.2	%			no
		Conductivity		quarterly	792	794	pH units			no
		Ammonia		quarterly	0.83	0.44	us/cm	1875		no
		Chloride		quarterly	26.5	24.7	mg/L N	0.175		no
		TOC		quarterly	<3	<3	mg/L	1875		no
		Ortho Phosphate		annual	<0.02		mg/L P			no
		TON		annual	8.6		mg/L N			no
		Fluoride		annual	<0.5		mg/L F			no
		Sulphate		annual	41.2		mg/L SO4	1875		no
		Alkalinity		annual	325		mg/L CaCO3			no
		Boron		annual	62.8		mg/L	750		no
		Calcium		annual	<0.08		ug/L	3.75		no
		Chromium		annual	132		mg/L			no
		Copper		annual	<3		ug/L	37.5		no
		Iron		annual	<0.019		ug/L			no
		Lead		annual	<0.2		ug/L	18.75		no
		Magnesium		annual	15.5		mg/L			no
		Manganese		annual	<1		ug/L			no
		Mercury		annual	<0.01		ug/L	0.75		no
		Nickel		annual	0.638		SELECT	15		no
		Potassium		annual	3.7		mg/L			no
		Sodium		annual	13.4		mg/L	150		no
		Zinc		annual	2.41		ug/L			no
		Total Oxidant Residue on Evaporation		annual	<0.05		mg/L			no
		Evaporation		annual	535		mg/L			no

Groundwater/Soil monitoring template

Lic No:

W0025-04

Year

2017

*Please note precedence of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance over time over the intervention of monitoring periods is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ADPS as a licensee return or as otherwise instructed by the EPA. More information on the use of soil and groundwater standard/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance (see the link in GSI).

Groundwater monitoring template

** 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's e.g. if the site is close to surface water compare to surface Water Environmental Quality Standards (WEQS). If the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS)

Groundwater regulations (private supply) standards
 Drinking water (public supply) standards
 Interim Guideline Value (IGV)

Table 3: Soil results

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

Where additional detail is required please enter it here in 200 words or less

Environmental Liabilities template

[Click here to access EPA guidance on Environmental Liabilities and Financial Provision](#)

Lic No:

W00025-04

Year

2017

		Commentary
1	ELRA Initial agreement status	Submitted and agreed by EPA
2	ELRA review status	Review required and completed
3	Amount of Financial Provision cover required as determined by the latest ELRA	Specify 3474000
4	Financial Provision for ELRA status	Required but not submitted
5	Financial Provision for ELRA - amount of cover	Specify
6	Financial Provision for ELRA - type	Public Liability Insurance with Environmental Impairment Liability cover,
7	Financial provision for ELRA expiry date	Enter expiry date
8	Closure plan initial agreement status	Closure plan submitted and not agreed by EPA
9	Closure plan review status	Review required and completed
10	Financial Provision for Closure status	SELECT
11	Financial Provision for Closure - amount of cover	Specify
12	Financial Provision for Closure - type	cash deposit
13	Financial provision for Closure expiry date	Enter expiry date

Environmental Management Programme/Continuous Improvement Programme template

Highlighted cells contain dropdown menu click to view

Lic No:

W0025-04

Year

2017

Additional Information

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

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Additional improvements	Carry out compliance monitoring in accordance with licence conditions	100	Monitoring scheduled prepared and implemented throughout 2017 period	Landfill Manager	Increased compliance with licence conditions
Reduction of emissions to Air	Continue to manage gas and upgrade pipework as required	100	Vertical wells installed and extended as waste was placed. Gas balancing carried out regularly.	Landfill Foreman	Reduced emissions
Reduction of emissions to Air	Assess flare operation and orifice plate requirements. Adjust blower as required.	100	Orifice plate increased to higher capacity in September 2017. Blower increased throughout the year as required.	Landfill Manager, Landfill Foreman	Improved Environmental Management Practices
Materials Handling/Storage/Bundling	Complete bund integrity testing on Leachate tank and leachate lagoon	100	Consulting engineers employed and testing completed	Landfill Manager	Improved Environmental Management Practices
Additional improvements	Review tenders for machinery	100	Tenders advertised and new contractor appointed.	Senior Engineer / Procurement Officer	Improved Environmental Management Practices

Noise monitoring summary report

Lic No:

W0025-04

Year

2017

- 1 Was noise monitoring a licence requirement for the AFR period?
If yes please fill in table N1 noise summary below
- 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?
- 3 Does your site have a noise reduction plan
- 4 When was the noise reduction plan last updated?
- 5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

Yes
No
N/A
No

Table N1: Noise monitoring summary

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{min}	LA ₉₀	LA ₅₀	LA _{max}	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 site compliant with noise limits (day/evening/night)?
01/12/2017	9.50		S1	71	57	75		No	SELECT	passing traffic, distant traffic	Yes
01/12/2017	11.13		S1	74	57	79		No		passing traffic, distant traffic	Yes
01/12/2017	14.18		S1	72	61	76		No		passing traffic, distant traffic	Yes
01/12/2017	9.05		S2	56	51	55		No		passing traffic, birdsong	Yes
01/12/2017	11.05		S2	59	47	54		No		passing traffic, birdsong	Yes
01/12/2017	13.45		S2	56	48	54		No		passing traffic, birdsong	Yes
01/12/2017	8.30	N4		57	52	60		No		passing traffic, distant traffic	
01/12/2017	10.35	N4		55	48	59		No		passing traffic, distant traffic	
01/12/2017	13.03	N4		56	49	59		No		passing traffic, distant traffic	
01/12/2017	10.28		N5	47	43	47		No			Yes
01/12/2017	12.26		N5	51	43	48		No			Yes
01/12/2017	15.29		N5	53	47	50		No			Yes
01/12/2017	9.56		N6	53	49	55		No			Yes
01/12/2017	11.52		N6	53	46	54		No			Yes
01/12/2017	14.54		N6	52	48	55		No			Yes

*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?

SELECT

** please explain the reason for not taking action/resolution of noise issues?
The duration of monitoring was 30 minutes for each measurement. Where noise levels exceed 55dBA at NSL, it was reported that the levels were due to off-site noise sources. "If off site noise sources were removed from the measurement the noise emissions from on-site activity would be less than 55dBA".
Tonal / Impulsive noise was not detected at any location.

- 1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below
- 2 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
- 3 Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Additional Information	
07/01/2014	Carlow county council is signed up to energy MAP
Yes	Network (LENI)
N/A	

Table R1 Energy usage on site			
	Previous Year	Current Year	Production +/- % compared to previous reporting year**
Energy Use			Energy Consumption +/- % vs overall site production*
Total Energy Used (MWh/hrs)			
Total Energy Generated (MWh/hrs)			
Total Renewable Energy Generated (MWh/hrs)			
Electricity Consumption (MWh/hrs)	95.34	98.15	
Fossil Fuels Consumption:			
Heavy Fuel Oil (m3)			
Light Fuel Oil (m3)	61		
Natural gas (m3)			
Coal/Solid fuel (metric tonnes)			
Peat (metric tonnes)			
Renewable Biomass			
Renewable energy generated on site			

* 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.

** where site production information is available please enter percentage increase or decrease compared to previous year

Table R2 Water usage on site							
	Water extracted Previous year m3/Yr.	Water extracted Current year m3/Yr.	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*	Volume Discharged back to environment(m ³ /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/Yr	Unaccounted for Water:
Water use							
Groundwater							
Surface water							
Public supply	81	209					
Recycled water							
Total							

* 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.

** where site production information is available please enter percentage increase or decrease compared to previous year

Table R3 Waste Stream Summary					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	88.05			88.05	
Non-Hazardous (Tonnes)	53836.73	52854.18		982.55	

Resource Usage/Energy efficiency summary

Table R4: Energy Audit finding recommendations

Lic No:

W0025-04

Year

2017

Date of audit	Recommendations	Description of Measures proposed	Origin of measures	Predicted energy savings %	Implementation date	Responsibility	Completion date	Status and comments
07/01/2014	Reduce site MIC from 74 to <29		energy audit	25			completed during 2014	
07/01/2014	Remove storage heaters and install de-humidifier in storage containers		energy audit	25			completed February 2014	
07/01/2014	Replace convactor heater with radiant heater with appropriate controls		energy audit	25			use of heaters in this area reviewed and usage decreased	
07/01/2014	Ensure lights and PCs are shut down when not in use		energy audit	minimal			ongoing	

Table R5: Power Generation: Where power is generated onsite (e.g. power generation facilities/food and drink industry)/please complete the following information

Technology	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Primary Fuel					
Thermal Efficiency					
Unit Date of Commission					
Total Starts for Year					
Total Running Time					
Total Electricity Generated (GWH)					
House Load (GWH)					
KWH per Litre of Process Water					
KWH per Litre of Total Water used on Site					

Complaints and Incidents summary template

Complaints

Lic No:

W0025-04

Year

2017

Additional information

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

Date	Category	Other type (please specify)	Brief description of complaint (Free txt <20 words)	Corrective action < 20 words	Resolution status	Resolution date	Further information
20/03/2017	Odour		Odour along roadway	check gas lines, continue to operate flare	Complete	06/04/2017	
14/06/2017	Odour		odour from landfill	upgrade roadway and cover waste appropriately	Complete	14/06/2017	
25/09/2017	Odour		odour from landfill	operate flare and check gas lines	Complete	25/09/2017	Flare had stopped and staff did not receive text message. The flare was re-started when discovered. AFS were contacted re text messages
25/09/2017	Odour		odour from landfill	operate flare and check gas lines	Complete	25/09/2017	Flare had stopped and staff did not receive text message. The flare was re-started when discovered. AFS were contacted re text messages
25/09/2017	Odour		odour from landfill	operate flare and check gas lines	Complete	25/09/2017	Flare had stopped and staff did not receive text message. The flare was re-started when discovered. AFS were contacted re text messages
19/10/2017	Odour		Complaint from neighbour re "gassy smell"	checked gas lines, continued to operate flare. Contacted complainant	Complete	19/10/2017	
15/11/2017	Odour		complaint from neighbour that there was a strong smell at her house	checked gas lines, continued to operate flare. Visited complainant	Complete	15/11/2017	ongoing work at the time included extending of gas wells, installation of temporary plastic cover on cells 15 & 17.
Total complaints open at start of reporting year					0		
Total new complaints received during reporting year					7		
Total complaints closed during reporting year					7		
Balance of complaints end of reporting year					0		

Complaints and incidents summary template

Incidents

Lic No: W0025-04

Year

2017

Have any incidents occurred on site in the current reporting year? Please list all incidents for current reporting year in Table 2 below

Yes

Additional Information

*For information on how to report and what constitutes an incident

What is an incident

Table 2: Incidents summary

Date of occurrence	Incident nature	Location of occurrence	Incident category* please refer to guidance	Receptor	Cause of incident	Other cause please specify	Activity in progress at time of incident	Communication	Occurrence	Corrective action <20 words	Preventative action <20 words	Resolution status	Resolution date	Likelihood of recurrence
13/06/2017	Trigger level reached	Surface emissions	1. Minor	Air	Other (add details)	Fugitive landfill gas emissions	Normal activities	EPA	New	Gas wells were extended and sealed. The blower on the flare was increased.	Continue to operate flare and maintain gas lines.	Complete	08/07/2017	Medium
Aug-17	Breach of EVV	Dust locations D2, D6	1. Minor	Air	Not related to site dust gauges	vegetation in the vicinity of the gauges	Normal activities	EPA	New	vegetation removed where appropriate. Re-located DB	appropriate. Re-located DB	Complete	01/09/2017	Low
25/09/2017	Monitoring equipment offline	licensed discharge point (LDP)	1. Minor	Air	Plant or equipment	Flare Stopped	No activities, site closed	EPA	New	Re-start flare	Continue to operate flare and maintain gas lines.	Complete	25/09/2017	Low
07/12/2017	Trigger level reached	Surface emissions	1. Minor	Air	Other (add details)	Fugitive landfill gas emissions	Normal activities	EPA	New	Additional clay cover added, pipework upgraded, well heads sealed	continue to monitor gas and operate flare	Complete	09/02/2017	Medium
Jan - Dec 2017	Breach of EVV	Other location (boundary gas wells)	1. Minor	Air	Other (add details)	Landfill gas management	Normal activities	EPA	Recurring	continue to manage gas field	continue to monitor gas and operate flare	Ongoing		High
Total number of incidents current year			5											
Total number of incidents previous year			18											
% reduction/increase			72% reduction											

SECTION B - WASTE ACCEPTED ONTO SITE- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES

Were any wastes accepted onto your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility? (waste generated within your boundaries is to be captured through PRTR reporting)
If yes please enter details in table 1 below

2 Did your site have any rejected consignments of waste in the current reporting year? If yes please give a brief explanation in the additional information

3 Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information

Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook)

Licensed annual tonnage limit for your site (total tonnes/annum)	EMC code	Source of waste accepted	Description of waste accepted Please enter an accurate and detailed description - which applies to relevant EMC code	Quantity of waste accepted in current reporting year (tonnes)	Quantity of waste accepted in previous reporting year (tonnes)	Reduction/ Increase over previous year +/- %	Reason for reduction/ increase from previous reporting year	Packaging Content (%) - only applies if the waste has a packaging component	Disposal/Recovery or treatment operation carried out at your site and the description of this operation	Quantity of waste remaining on site at the end of reporting year (tonnes)	Comments -
	European Waste Catalogue EMC codes		European Waste Catalogue EMC codes								
	100101	Medline Clonmel	bottom ash	3201	2407		During 2016 ash was not accepted from August to December. Ash was accepted throughout the year for 2017	0%	D15-Storage pending any of the operations numbered D1 to D14		all material was used for daily cover
	191212	Country Clean Recycling, Clonmel Waste Recovery Services	C&D fines	6298	4425		C&D fines not accepted between August - December 2016	0%	D15-Storage pending any of the operations numbered D1 to D14		all material was used for daily cover
	170504	Council Clean up, Arich Chemicals, local developments	Clay, soil and stones	5610	9221			0%	D1-Deposit into or onto land		all material went into landfill
	170101	Carlow Co. Co	Rubble	311	291			0%	D1-Deposit into or onto land		all material went into landfill
	191207	Country Clean Recycling	Woodchip	70.3	0			0%	D1-Deposit into or onto land		all material went into landfill

SECTION C- TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES

- 4 Is all waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure required onsite
- 5 Is all waste storage infrastructure as required by your licence and approved by the Agency in place? If no please list waste storage infrastructure required on site
- 6 Does your facility have relevant nuisance controls in place?
- 7 Do you have an odour management system in place for your facility? If no why?
- 8 Do you maintain a sludge register on site?

SECTION D- TO BE COMPLETED BY LANDFILL SITES ONLY

Table 2 Waste type and tonnage-landfill only

Waste types permitted for disposal	Authorised/licenced annual tonnage for disposal (Tpa)	Actual tonnage for disposal in reporting year (Tpa)	Remaining licensed capacity at end of reporting year (Tpa)	Comments
Household	48,500	37,434		
Commercial, Industrial				
Construction & Demolition	1,000	15,420	15,000	
Treated Sewage Sludge	500	0		

SELECT

SELECT

SELECT

SELECT

SELECT

SELECT

Table 3 General Information- Landfill only

Area ID	Date handling commenced	Date handling ceased	Currently handling	Private or Public Operated	Inert or non-hazardous	Predicted date to cease handling	License permits asbestos	In there a separate cell for asbestos?	Accepted asbestos in reporting year	Total disposal area occupied by waste	Inert disposal area occupied by waste	Unlined area	Comments on liner type
Cell 8										SELECT UNIT	SELECT UNIT	SELECT UNIT	

Table 4 Environmental monitoring-landfill only

Was meteorological monitoring compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year +	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SVI monitored in compliance with LD standard in reporting year	Have CIV/Triger levels been established	Were emission limit values agreed with the Agency (ELV)	Was topography of the site submitted in reporting year	Has the statement under Section 10(2) of WMA been submitted in reporting year	Comments
Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	

Table 5 Capping-landfill only

Area uncapped*	Area with temporary cap	Area with final cap to LD Standard and Ina	Area capped other	Area with waste that should be permanently capped to state under licence	What materials are used in the cap (geosynthetic, gas geocomposite, LDPE liner, Drainage geocomposite, 1 metre or Clay	Comments
36000		84000				

Table 6 Leachate-landfill only

Volume of leachate in reporting year(m ³)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH ₄) mass load (kg/annum)	Leachate (Chloride) mass load (kg/annum)	Leachate treatment on-site	Specify type of leachate treatment	Comments
						Yes No	

Table 7 Landfill Gas-landfill only

Gas Capture Treated by LFG Systems	Power generated (KW / KWH)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
6,337,882		0/no	Yes	



Environmental Protection Agency

Guidance to completing the PRTR workbook
PRTR Returns Workbook

PRTR#: W0025 | Facility Name: Powerslown Landfill Site | Filename: W0025_2017.xls | Return Year: 2017

REFERENCE YEAR | 2017

Version: 1.1.19

1. FACILITY IDENTIFICATION

Parent Company Name	Carlow County Council
Facility Name	Powerslown Landfill Site
PRTR Identification Number	W0025
Licence Number	W0025-04

Classes of Activity	No.	class_name
- Refer to PRTR class activities below		

Address 1	Kilkenny Rd.
Address 2	
Address 3	
Address 4	
County	Carlow
Coordinates of Location	-6.15456 53.5062
River Basin District	IESE
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Mary Walsh
AER Returns Contact Email Address	mwahs@carlowcoco.ie
AER Returns Contact Position	Acting Landfill Manager
AER Returns Contact Telephone Number	0599172402
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	
Production Volume Units	tonnes
Number of Installations	53924.78
Number of Operating Hours in Year	1378
Number of Employees	
User Feedback/Comments	There have been variances in CO ₂ , NO _x , SO _x and VOC emissions for 2017. CO ₂ , NO _x and VOC have increased since the 2016 monitoring period. This is likely due to the fact that the average flow rate during 2016 was 609m ³ /hr while during 2017 it was an average of 728m ³ /hr. SO _x emissions reported for 2017 have decreased. This could be due to the nature of the waste deposited. The landfill gas model for the site was revised at the beginning of 2016. The Landgen model predicted a methane generation of 1,313,667 kg/yr CH ₄ . However, the amount of methane flared (taken from the 2017 landfill gas return) was 1,393,568 kg/yr. Therefore, there are 0 net methane emissions reported for 2017.
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(a)	Landfills
5(c)	Installations for the disposal of non-hazardous waste
5(d)	Landfills
50.1	General

3. SOLVENTS REGULATIONS (SI 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?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE

[Guidance on waste imported/accepted onto site](#)

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ?	
--	--

4.1 RELEASES TO AIR [Link to previous years emissions data](#)

PRTR# : W0025 | Facility Name : Powerstown Landfill Site | Filename : W0025_2017.xls | Return Year : 2017 |

28/06/2018 16:37

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

No. Annex II	POLLUTANT	Name	M/C/E	Method Code	Method Used	Please enter all quantities in this section in KGs		QUANTITY		
						Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	0.0
02	Carbon monoxide (CO)		M	EN 13095:2004	NCIR BY Horba pg-250	70.97	70.97	0.0	0.0	0.0
01	Methane (CH4)		C	OTH	Total Estimated methane generated minus total methane flared	0.0	0.0	0.0	0.0	0.0
08	Nitrogen oxides (NOx/NO2)		M	EN 14792:2005	Chemiluminescence	673.0	673.0	0.0	0.0	0.0
11	Sulphur oxides (SOx/SO2)		M	OTH	NDIR Adsorption	1851.0	1851.0	0.0	0.0	0.0

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

SECTION B : REMAINING PRTR POLLUTANTS

No. Annex II	POLLUTANT	Name	M/C/E	Method Code	Method Used	Please enter all quantities in this section in KGs		QUANTITY		
						Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	0.0
84	Fluorine and inorganic compounds (as HF)		M	ISGD/IS 15773:2004	Ion Chromatography	0.0	0.0	0.0	0.0	0.0
80	Chlorine and inorganic compounds (as HCl)		M	EN 1911-1 to 3:2003	Ion Chromatography	0.0	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

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

Pollutant No.	POLLUTANT	Name	M/C/E	Method Code	Method Used	Please enter all quantities in this section in KGs		QUANTITY		
						Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	0.0
237	Volatile organic compounds (as TOC)		M	ALT	EN12619 FID	48.5	48.5	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 'Total' (Kg/yr 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 utilised	Powerstown Landfill Site		Facility Total Capacity m3 per hour
	T (Total) kg/Year	Method Used	
Total estimated methane generation (as per site model)	1313867.0	C	N/A
Methane flared	1393556.0	M	1250.0 (Total Flaring Capacity)
Methane utilised in engine/s	0.0	OTH	0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0		N/A

4.2 RELEASES TO WATERS [Link to previous years emissions data](#)

PRTR# : W0025 | Facility Name : Powerstown Landfill Site | Filename : w0025_2017.xls | Return Year : 2017 |

28/06/2018 16:38

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO WATERS

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 on

No. Annex II	POLLUTANT	Name	Method Used		Emission Point 1	QUANTITY		
			M/C/E	Method Code		Designation or Description	T (Total) KG/Year	A (Accidental) 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

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO WATERS

Please enter all quantities in this section in KGs

No. Annex II	POLLUTANT	Name	Method Used		Emission Point 1	QUANTITY		
			M/C/E	Method Code		Designation or Description	T (Total) KG/Year	A (Accidental) 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

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

RELEASES TO WATERS

Please enter all quantities in this section in KGs

Pollutant No.	POLLUTANT	Name	Method Used		Emission Point 1	QUANTITY		
			M/C/E	Method Code		Designation or Description	T (Total) KG/Year	A (Accidental) 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

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

PRTR# : W0025 | Facility Name : Powerstown Landfill Site | Filename : w0025_2017.xls | Return Y :

29/09/2018 16:38

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER		METHOD		Please enter all quantities in this section in KGs		
No. Annex II	POLLUTANT Name	M/C/E	Method Code	QUANTITY		F (Fugitive) KG/Year
				T (Total) KG/Year	A (Accidental) KG/Year	
				0.0	0.0	0.0

* 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)

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER		METHOD		Please enter all quantities in this section in KGs		
Pollutant No.	POLLUTANT Name	M/C/E	Method Code	QUANTITY		F (Fugitive) KG/Year
				T (Total) KG/Year	A (Accidental) KG/Year	
				0.0	0.0	0.0

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

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

| PRTR# : W0025 | Facility Name : Powerstown Landfill Site | Filename : w0025_2017.xls | Return Year : 2017 |

SECTION A : PRTR POLLUTANTS

No. Annex II	POLLUTANT		METHOD		Emission Point 1		QUANTITY	
	Name	W/C/E	Method Used	Designation or Description	T (Total) KG/Year	A (Accidental) KG/Year	T (Total) KG/Year	A (Accidental) 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

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

Pollutant No.	POLLUTANT		METHOD		Emission Point 1		QUANTITY	
	Name	W/C/E	Method Used	Designation or Description	T (Total) KG/Year	A (Accidental) KG/Year	T (Total) KG/Year	A (Accidental) 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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

Please enter all quantities on this sheet in Tonnes

23/06/2018 16:38

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Hazard Waste Name and Licence/Permit No of Next Haz Waste Name and Licence/Permit No of Recover/Disposer	Hazard Waste Address of Next Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (HAZARDOUS WASTE ONLY)
						W/C/E	Method Used					
Within the County	13 02 08	Yes	6 748	other engine, gear and lubricating oils	R13	M	Weighted	Offsite in Ireland	ENVA Ireland,W0181-01 Greenstar,WFP -KK-09-0003-01	Portlaoise Co Laos, Ireland	ENVA Ireland,W0181-01	Portlaoise Co Laos, Ireland
Within the County	15 01 02	No	63 12	plastic packaging (bottles & wrapping)	R13	M	Weighted	Offsite in Ireland	Greenstar,WFP -KK-09-0003-01	Kilkenny,Ireland		
Within the County	15 01 07	No	58 84	glass packaging	R13	M	Weighted	Offsite in Ireland	Greenstar,WFP -KK-09-0003-01	Kilkenny,Ireland		
To Other Countries	16 01 07	Yes	1 08	oil fillers	R13	M	Weighted	Abroad	ENVA Ireland,W0181-01	Portlaoise Co Laos, Ireland	R.D. Recycling 51727-1- KD Houthalen, Belgium	Houthalen, Belgium
Within the County	16 05 04	Yes	0 48	gases in pressure containers (including halons) containing dangerous substances	R13	M	Weighted	Offsite in Ireland	ENVA Ireland,W0181-01	Portlaoise Co Laos, Ireland	Campine Recycling Ltd,MLAV /05 Campine Recycling Ltd,173G/VDA,Beerse, Belg lum	Portlaoise Co Laos, Ireland
To Other Countries	16 06 01	Yes	4 21	lead batteries	R13	M	Weighted	Abroad	ENVA Ireland,W0181-01	Portlaoise Co Laos, Ireland	Campine Recycling Ltd,173G/VDA,Beerse, Belg lum	Campine Recycling Ltd,173G/VDA,Beerse, Belg lum
Within the County	16 06 04	No	2 66	alkaline batteries (except 16 06 03)	R13	M	Weighted	Offsite in Ireland	The Recycling Village,WFP- LH-10-0010-01	Co Louth,Ireland		
Within the County	17 08 02	No	13 1	gypsum-based construction materials other than those mentioned in 17 08 01	R13	M	Weighted	Offsite in Ireland	Greenstar,WFP -KK-09-0003-01	Kilkenny,Ireland		
Within the County	19 07 03	No	13409 83	landfill leachate other than those mentioned in 19 07 02	R13	M	Weighted	Offsite in Ireland	Mordarstown Waste Water Treatment Plant, D-0028 Greenstar,WFP -KK-09-0003-01	Carlow, Ireland		
Within the County	20 01 01	No	146 96	paper and cardboard	R13	M	Weighted	Offsite in Ireland	Greenstar,WFP -KK-09-0003-01	Kilkenny,Ireland		
Within the County	20 01 02	No	30 18	flat glass	R13	M	Weighted	Offsite in Ireland	Greenstar,WFP -KK-09-0003-01	Kilkenny,Ireland		
Within the County	20 01 08	No	40 08	biodegradable kitchen and canteen waste	R13	M	Weighted	Offsite in Ireland	OTtole Composting,WFP- CW-10-0003-01	Ballintrae,Fenagh, Co. Carlow, Ireland		
Within the County	20 01 11	No	10 57	textiles	R13	M	Weighted	Offsite in Ireland	Mrs Quinns Charity Shop- Greenstar,WFP -KK-09-0003-01	Portlaoise Co Laos, Ireland		
Within the County	20 01 21	Yes	0 626	fluorescent tubes and other mercury-containing waste	R13	M	Weighted	Offsite in Ireland	KMK Metals,W0113-01	Tullamore Co. Offaly, Ireland	KMK Metals,W0113-01	Tullamore Co. Offaly, Ireland
Within the County	20 01 23	Yes	24 43	discarded equipment containing chlorofluorocarbons	R13	M	Weighted	Offsite in Ireland	Ratcliffe Recycling Ltd,WCP-DC-08-1130-01	Ballystahan, St. Margarets Dublin, Ireland	Ratcliffe Recycling,WCP- DC-08-1130-01	Ballystahan, St. Margarets Dublin, Ireland
Within the County	20 01 25	No	0 98	edible oil and fat	R13	M	Weighted	Offsite in Ireland	Pure Oil Ltd,NWCP-10-02557-01	Ballyweather,Barntown, Co. Wexford,Ireland		
To Other Countries	20 01 27	Yes	4 02	containing dangerous substances discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	R13	M	Weighted	Abroad	ENVA Ireland,W0181-01	Portlaoise Co Laos, Ireland	Nehsen D33300040, Braem en, Germany	Braemen, Germany
Within the County	20 01 35	Yes	46 46	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R13	M	Weighted	Offsite in Ireland	Ratcliffe Recycling Ltd,WCP-DC-08-1130-01	Ballystahan, St. Margarets Dublin, Ireland	Ratcliffe Recycling,WCP- DC-08-1130-01	Ballystahan, St. Margarets Dublin, Ireland
Within the County	20 01 36	No	0 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R13	M	Weighted	Offsite in Ireland	Irish Lamp Recycling ,WFP- KE-08-0348-01	Woodstock Industrial Estate,Kilkenny Road,Ahly ,Co. Kildare,Ireland		
Within the County	20 01 38	No	114 74	wood other than that mentioned in 20 01 37	R13	M	Weighted	Offsite in Ireland	Ratcliffe Recycling Ltd,WCP-DC-08-1130-01 Greenstar,WFP -KK-09-0003-01	Ballystahan ,St. Margarets Dublin, Ireland		

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste - Name and Licence/Permit No of Next Destination Facility Haz Waste Name and Licence/Permit No of Receiver/Disposer	Haz Waste - Address of Next Destination Facility Non-Haz Waste: Address of Receiver/Disposer	Name and License / Permit No and Address of Final Receiver / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (HAZARDOUS WASTE ONLY)
						MC/E	Method Used					
Within the Country	20 01 40	No	67.26	metals	R13	M	Weighted	Offsite in Ireland	Ratcliffe Recycling Ltd,WCP-DC-08-1130-01	Ballysathan, St. Margarets ,Dublin,,Ireland		
Within the Country	20 02 01	No	282.46	biodegradable waste	R13	M	Weighted	Offsite in Ireland	Greensiar,WFP -KK-09-0003-01	---,Kilkenny,Ireland		
Within the Country	16 01 03	No	3.02	end-of-life tyres	R12	M	Weighted	Offsite in Ireland	Recycling WFP-CC-0912013	Hollymount Industrial Estate,Hollyhill,Co Cork,Cork,Ireland		

* Select a row by double-clicking the Description of Waste then click the delete button