ANNUAL ENVIRONMENTAL REPORT

AES TULLAMORE WASTE TRANSFER STATION JANUARY 2011 THROUGH DECEMBER 2011

Waste Licence

Registration Number:

Advanced Environmental Solutions (AES) Licensee:

ion P. Treland Ltd

Location of Activity: For I Cappincur, Tullamore,

County Offaly

Attention: Office of Environmental Enforcement

> **EPA Headquarters** P.O. Box 3000

Johnstown Castle Estate

Co. Wexford

Prepared by: ANUA Environmental





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Waste Transfer Station in Cappincur, Tullamore, Co. Offaly to the Consent of copyright owner required for Environmental Protection Agency. The report covers the annual reporting

period of 2011.

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1.0 INTRODUCTION

The Environmental Protection Agency (EPA) issued Advanced Environmental Solutions (Ireland) Ltd, with a Waste Licence for its Waste Transfer Station at Cappincur Industrial Estate, Tullamore, Co. Offaly on 5th October 2009. The Waste Licence reference number is W0104-02.

The facility is currently licensed to a maximum of 50,000 tonnes of waste per annum.

In May 2007, Bord na Móna PLC acquired Advanced Environmental Solutions (AES) Ireland Ltd., one of Irelands leading waste management companies which services 5,000 commercial customers and 60,000 domestic customers.

AES Ireland Ltd. currently operates a network of recycling & transfer facilities throughout Leinster and further afield. These facilities are located in Navan, Co. Meath, Tullamore, Co. Offaly, Portlaoise, Co. Laois, Nenagh, Co. Tipperary and Rosslare, Co. Wexford.

ANUA Environmental was commissioned to prepare and submit the Annual Environmental Report (AER) for the facility in compliance with Condition 11.7 of the Waste Licence. This report addresses Condition 11.7 of the Waste Licence for the facility.

This report addresses Condition 11.7 of the waste license for the facility which states;

"The licensee shall submit to the Agency, by the 31st March each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in Schedule E: Annual Environmental Report of this license and shall be prepared in accordance with any relevant guidelines issued by the Agency".

This report addresses the items listed in Schedule E: Annual Environmental Report of the Waste License for the facility. This AER covers the reporting period from 1st Jan. 2011 up to 31st December 2011.

1.1 Site Description and Activities

AES operates a Waste License (W0104-02) for its Waste Transfer Station at Cappincur Industrial Estate, Tullamore, Co. Offaly. Operations at the facility include the receipt of domestic, commercial, industrial and construction waste, which is sorted and segregated for onward recycling / recovery in accordance with the recycling potential. Waste deemed unsuitable for recycling / recovery is segregated and compacted for disposal off-site.

The site is located in the Cappincur Industrial Estate towards the east of Tullamore town, off the L-02025 road to Daingean – Figure 1.1.

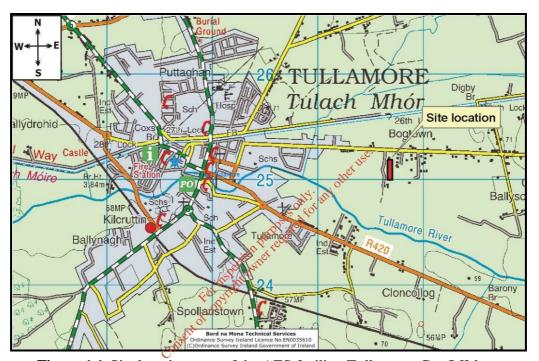


Figure 1.1 Site location map of the AES facility, Tullamore, Co. Offaly.

The site location map and monitoring location maps are included in Appendix 1

1.2 Waste Handling Procedure

Normal operational hours of the site are between the hours of 07:00 to 23:00 Monday to Saturday inclusive. Waste is not accepted at the facility on Sundays or Bank Holidays.

Current waste acceptance procedures involve the use of a computer based programme, called Integrated Waste System (IWS). The software is linked to the on-site weighbridge and is used for recording waste quantities accepted on-site. Details including the waste type, EWC code, vehicle registration number, and customer are recorded on the system as per the requirements of Condition X of the waste licence.

After weighing, waste loads are brought to the enclosed Processing Building where it is deposited on the floor for visual inspection to ensure that all wastes comply with the requirements of the Waste Licence, W0104-02. Different waste streams are accepted to different parts of the building to maximise the sorting and segregation of waste types. For example mixed dry recyclables are accepted into the recycling processing building which is accessed from the south-western end of the building. Mixed Solid waste (MSW) and commercial skip waste is deposited in the waste processing building and accessed through the north-eastern entrance.

The Waste Segregation Manager is responsible for carrying out visual inspections and for maintaining a written record of all loads. Written records of each inspection are recorded on the incoming waste inspection sheet at the end of each working day. Only after visual inspection can the waste be identified for disposal or recovery.

Within the Processing Building waste is sorted according to its recycling potential and is either deemed suitable for further onwards recycling/ recovery or compacted within one of the compactors on site. The categories of waste deemed suitable for segregations and recycling is dependent on available markets for such materials. Materials commonly accepted for recycling include; steel & iron, cardboard & newsprint, timber, soil & stone (suitable for backfill material), green waste, plasterboard, plastics, glass and occasional empty gas cylinders.

Household mixed dry recyclables are collected by AES and accepted at the facility, where the waste is segregated by mechanical and manual means into various waste streams. Bulked recyclate is then forwarded off-site for further recycling/reprocessing and/or recovery.

All waste deemed unsuitable for recovery is loaded into designated ejector trailers or is compacted within one of the two compactors on-site. All compacted waste is sealed within specialised containers and is subsequently transported for authorised disposal. All outgoing waste being transported from the facility is weighed and recorded at the weighbridge. An individual weigh docket is printed for each waste load which records the waste type, EWC, vehicle registration, time & date, and onward waste destination.

2.0 EMISSIONS FROM THE FACILITY

Emissions as per Schedule B of the Waste License, W0104-02. Surface-water, ground-water, dust and noise monitoring results are discussed in Section 6 of this report.

Foul water produced at the facility is tankered off site for final disposal. A total of 541.65 tonnes was tankered off site during the 2011 reporting period.

3.0 WASTE MANAGEMENT RECORD

The waste that arrives at the facility may be characterised as follows:

- Household Waste
- Commercial Waste
- Industrial Non-Hazardous Waste
- Construction and Demolition

These waste classification, subsequent to inspection, can be further categorised as being either suitable for recycling / recovery off-site or disposal off-site to authorised disposal facilities. Hazardous waste is not accepted at the site. Hazardous waste in the form of batteries and fluorescent tubing that are inadvertently accepted to the site are segregated into individual storage skips/areas within the plant and subsequently collected by authorised contractors for further treatment/ disposal. Any materials that are suspect in nature (i.e. hazardous are not accepted at the facility) are routed to the Waste Quarantine Area within the Recycling Plant for further examination and processing prior to removal off-site for appropriate treatment/disposal by an appropriate hazardous waste contractor.

3.1 Waste Activities carried out at the Facility.

Waste activities carried out at the facility are restricted to those outlined in $Part\ 1$ – Activities Licensed of the Waste License.

Licensed waste disposal activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2008.

- Class 11 Blending or mixing prior to submission of any activity referred to in a preceding paragraph of this Schedule.
- Class 12 Repacking prior to submission to any activity referred to in a preceding paragraph of this Schedule.
- Class 13 Storage prior to submission to any activity referred to in preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned was produced.

Licensed waste recovery activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2008.

Class 2 Recycling or reclamation of organic substances which are not used as solvents (including composing and other organic processes) (P).

- Class 3 Recycling or reclamation of metals or metal compounds:
- Class 4 Recycling or reclamation of other inorganic materials:
- Class 11 Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule:
- Class 12 Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.
- Class 13 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 produced:

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3.2 Waste Quantities and Composition.

A summary of incoming wastes accepted at the facility in 2011 is shown in Table 3.1 below while outgoing waste (sent for onward processing/recovery/disposal) is shown in Table 3.2 overleaf.

Table 3.1: Incoming Waste to AES Tullamore Wast	te Transfer Facility 2011
EWC Code	Incoming Waste (Tonnes)
150101 BC – Bailed Cardboard	5337.773
150101 C – Loose Cardboard	901.908
150101 MX –Mixed Paper & Cardboard	374.798
150102 PL – Plastic Packaging	1136.814
150104 – Metallic Packaging	1.56
150105 -	9.22
150106 – Mixed Paper	22.94
150107 – Glass Packaging	487.5
070514 – solids wastes from MFSU of pharmaceuticals 170102 –Bricks 170201 – Wood from C&D	13.37
170102 –Bricks	11.66
170201 – Wood from C&D	587.13
170407 – Mixed Metals	679.33
170504– Soil and Stones	32.28
170802 - Gypsum-based construction materials other than	19.13
those mentioned in 17 08 01	
170904 – Mixed C&D wastes other than those in 17 09 01,	2165.71
17 09 02, 17 09 03	
180104 – wastes whose collection and disposal is not subject	224.32
to special requirements in order to prevent infection (eg: dressings, plaster casts, linen, disposable clothing, diapers)	
190503 – Off-Specification Compost	242.43
191210 – Combustible Waste (refuse derived fuel)	117.7
191212 – Other wastes (including mixtures of materials)	70.1
from mechanical treatment of wastes other than those	
mentioned in 19 12 11	571.67
200101NP – Newsprint	571.67
200102 – Domestic Glass	2.46

Table 3.1 continued: Incoming Waste to AES Tullamore Waste Transfer Facility 2011		
EWC Code	Incoming Waste (Tonnes)	
200139 HPL – Hard plastics	111.78	
200201 – Garden Waste	26.26	
200301 C – Commercial Mixed Municipal Waste	11964.86	
200301 D – Domestic Waste	6369.58	
200301 K – Kerbside Blue Bin Contents	23492.61	
200307 – Bulky Waste	0.65	
Grand Total	54,975.53	

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	Table	3.2 Outgoing Waste Recov	ered / Disposed from AES Tullamore Waste Transfer Station	
EWC Code	Outgoing Waste	Destination Name	Destination Address	License No.
	76.28	International Recycling	Heath House, 5 Woolgate Court, st Benedicts st., Norwich,	
150101DC			England. NR2 2AP.	
150101BC	173.68	Irish Packaging Recycling	Ballymount Road, Walkinstown, Dublin 12	WPR 021/02
	6,510.01	(MLM)ACM Europe (UK)	Adamson House, Towers Bus.Pk. Wilmslow Rd., Didsbury,	
			Manchester, UK. M20 2YY	
	1052.7	Asia Global Trade Ltd	Suite 5, 30 lancaster Gate London, W2 3PL	
	551.09	Alternate Waste Solutions	Unit 2, Britannia Bus Pk., Point Plesant Ind, Est. Wallsend,	EA.WML/73274
			Tyne & Wear	
	220.86	Cherry Polymers	Unit 5, Nutts Corner Business pk., Dundrod rd. Crumlin Co.	WMEX01/31
150102BPL			Antrim BT294SR 🖋	
130102011	107.28	Dannelle	Tinypark, Quinagh, Co. Carlow	WP01/08
	122.20	International Recycling	Heath House Woolgate Court, St Benedict's Street, Norwich	
			NR2 1 AP IOK	
_	14.08	JFC Plastics	Weir Rd. Tuam, Co. Galway	
_	429.06	Leinster Environmental	Clermont Business Park, Haggardstown, Dundalk, Co. Louth	WP2008/06
	0.52	Polymer Recovery	Portarlington Ind Est, East Canal Rd, Portarlington, Co. Laois	WFP-LS-09-0007-01
	329.52	PEUTE Paper Recycling	Baanhoekweg 4, 3313 LA Dordrecht, Holland	OPK 2002
	508.92	Shabbra	Killycard Industrial Est., Castleblaney, Co. Monaghan	WFP 08-0022-01
	71.34	Weirwaste W.E.R.S	Tuam Business Park, Weir Road, Tuam, Co. Galway	WCP-MO-09-0608-02
	187.48	WRC Recycling	Auchans Farm, Johnstone, Renfrewshire, PA6 7EE Scotland	
150104	664.98	Hammond Lane Const	Garrycastle, Athlone, Co. Westmeath	WP173-2008
	29.74	Tandom metallurgical Group	Congleton, Cheshire, England.	
_	620.94	Boost Recycling	47 Swaffham Rd., Burwell Cambridge, UK. CB25 0AN	
_	609.42	Cellmark	Benelux BV, Heuel 7, NL 5664, Geldrop, Netherlands	
150106	24.80	Eastbound	Troon, Scotland. KA109AQ	
_	2147.46	N.N.VOPC	Merksplas, Antwerp, Belgium	
	12514.92	PEUTE Paper Recycling	Baanhoekweg 4, 3313 LA Dordrecht, Holland	OPK 2002
150107	18.64	John Gannon & Sons	Hazelwood, Kilbeggan, Co Westmeath, Ireland	
384.66 Glassco Unit 4 osberstown Ind Est, Naas, Co. Kildare		WFP-KE-08-0357-01		
150109	0.38	Textile Recycling	504A Grants Drive, Greenogue Ind Est, Dublin 24	W/0201 02
170107	299.46	Drehid WMF	Killinagh Upper, Carbury, Co. Kildare	W0201-03
170201	751.11	Thornton Waste Disposal		W0044-02
170407	653.94	Erin Recycling	Deepwater Quay, Finisklin, Sligo Harbour, Co. Sligo	WPSO-08-93
	61.56	Hammond Lane	Garrycastle, Athlone, Co. Westmeath	WP173-2008

	Table 3.2	Contd. Outgoing Waste Re	covered / Disposed from Cappincur Waste Transfer Station	
EWC Code	Outgoing Waste	Destination Name	Destination Address	License permit
170501	34.90	Drehid WMF	Killinagh Upper, Carbury, Co. Kildare	W0201-03
170802	12.74	Gypsum Recycling Ireland	Millennium Hse, Tullamore, Co. Offaly	WMP-238/006
		AES Navan	Proudstown Road, Navan, Co. Meath	W0131-02
170904	1118.03	AES Portlaoise	Kyletalesha, Portlaoise, Co. Laois	W0194-02
170904	308.42	Derryclure Landfill	OCC, Derrylure, Portlaoise Rd., Tullamore, Co. Offaly	W0029-02
	15.10	Drehid WMF	Killinagh Upper, Carbury, Co. Kildare	W0201-03
190503	61.54	AES Portlaoise	Kyletalesha, Portlaoise, Co. Laois	W0194-02
	45.82	O'Toole Composting	Ballintrane, Fennagh, Co. Carlow, Ireland	WP 01-07
	24.66		Millennium Business Park, Grange, Ballycoolin,	W0183-01
191212	2568.46	Greyhound	Crag Avenue, Clondalkin Ind Est., Dublin 22	W0205-01
	210.76	Laois Landfill	Kyletalesha, Portlaoise, Co. Laois	W0026-03
	25.70	Cellmark	Benelux BV, Heuel 7, NL 5664, Geldrop, Netherlands	
200101	91.56	Erin Recyclers Ltd	Deepwater Quay, Finisklin, Sligo Harbour, Co. Sligo	WPSO-08-93
200101	435.48	Failand Paper services Ltd.	11 Triangle South, Clifton, Bristol UK BS8 1EY	
	31.52	Irish Packaging Recycling	Ballymount Road, Walkinstown, Dublin 12	WPR 021/02
200135	0.78	KMK Metals Recycling	Cappincur Industrial Estate, Daingean Road, Tullamore, Co	W0113-03
		عراق المحادث	Offaly	
	16.82	JFC Plastics	Weir Rd, Tuam, Co. Galway	
200139	101.92	Leinster Environmental	Clermont Business Park, Haggardstown, Dundalk, Co. Louth	WP2008/06
20010	1.38	Polymer Recovery	Portarlington Ind Est, East Canal Rd, Portarlington, Co.	WFP-LS-09-0007-01
		Polymer Recovery	Laois	
200201	20.44	BNM Kilberry	Kilberry, Co. Kildare	W0198-01
		Drehid WMF	Killinagh Upper, Carbury, Co. Kildare	W0201-03
200301		Laois Landfill	Kyletalesha, Portlaoise, Co. Laois	W0026-03
200001		Oxigen Environmental Ltd	Merrywell Ind Est, Ballymount, Dublin 18.	W0208-02
200303		Drehid WMF	Killinagh Upper, Carbury, Co. Kildare	W0201-03
Grand Total	55,659.64			

4.0 RESOURCE AND ENERGY CONSUMPTION

4.1 Resource Consumption Summary

During the recording period water usage on-site has not been recorded (mains, not metered) therefore, calculation of water usage is not possible at present.

The total gasoil for the facility, including plant and heating oil was 11654 Litres.

The total electrical consumption at the site was 82,200 kWh during the reporting period. During the same period the total volume of wastewater that was tankered offsite to a Wastewater Treatment Facility was 541.65 tonnes.

4.2 Energy Efficiency Audit Report Summary

To comply with Condition 7.1 of the Waste Licence an Energy Efficiency Audit Report was submitted to the EPA during 2009. In 2011, the findings of the report were implemented, where feasible. Please refer to the Progress against Targets for 2011 in Table 5.1 for more details.

4.3 Raw Materials Consumption & Waste Energy.

The site has initiated an internal waste awareness campaign. AES have proactively installed recycling bins at every site and dedicated desk trays to collect office paper for recycling to improve the efficiency of the use of raw materials in processes and the reduction in waste generated on-site.

5.0 ENVIRONMENTAL OBJECTIVES & TARGETS

5.1 Progress against Targets for 2011

Details on progress made against the Targets for 2011 are presented in Table 5.1.

	Table 5.1: Progress against Targets for 2011				
Ref.	Objective	Target	Progress		
1	Training & Environmental Awareness	Continue roll out of EMS procedures to staff and contractors at AES Tullamore.	Achieved and on-going		
2	Environmental Management System	To maintain EMS to ISO 14001 standard	On-Going		
3	Energy Efficiency Audit	To review the Energy Efficiency Audit report and implement findings to reduce energy usage at the facility	Findings have been reviewed and selected measures have been implemented.		
4	Dust Suppression	To install a dust suppression system inside the waste transfer building	Ongoing		
5	Vehicle Record	Manvik to take over AES Fleet maintenance, ensure records are maintained on ViewWise	Not yet implemented. Ongoing.		
6	Upgrading Materials Sorting Equipment	To investigate to upgrade of sorting equipment	Not feasible due to space restrictions within processing building. To be reviewed in the future		
7	Roll out of Brown Bin	To continue the roll out of the 3 bin system	Complete in Westmeath, Athlone, Moate, Mullingar. Other areas under investigation		
8	Vehicle Re-Routing	Re-routing of waste collection routes to improve efficiency	Re-routing is an ongoing objective		
9	Glass Bin	Roll out of a glass bin collection service to be trialled in Tullamore town	Achieved		
10	Review Nuisance Controls	Review controls on site for litter, dust, vermin	On-Going		
11	On-site Waste Reduction	Continue to encourage on-site recycling, and recycling office waste	On-Going		
12	Vehicle Safety/Enviro Procedures	Review the safety and environmental procedures in place in relation to vehicles	Achieved		

5.2 Schedule of Objectives and Targets for 2012

	Table 5.2: Proposed Schedule of Objectives and Targets for 2012					
Ref	Objective	Target	Timescale	Response	Status	
1	Environmental Management	To Maintain EMS to ISO 140001 Standard	On-Going	Team PH/CG/H	On-Going	
	System	Conduct monthly EMS meetings	Apr-12	B/COB/M S	To maintain momentum for EMS team	
2	Energy Efficiency Audit	Review the Energy Efficiency Audit report & implement findings to reduce energy usage	May-12	PH/CG	On-Going	
3	Roll out of Brown Bin	To continue the roll out of 3 bin system	On-Going	РН	On-Going	
4	Vehicle Re- routing	Re-routing of waste collection routes to improve efficiency	On-Going	oller &OB	On-Going as new customers join AES	
5	Glass Bin	Roll out of glass bin collection service to be trialed in Mullingar town	no May-12	РН	On-Going	
6	Minimise Dust Nuisance offsite	Erect Netting around perimeter fencing	Jun-12	РН	On-Going	
7	On-site waste reduction	Continue to encourage on-site recycling, recycling office waste	Dec-12	Team	On-Going	
8	Ensure Compliance with Waste Licence	Review Waste licence to accommodate increased tonnages at the facility	Dec-12	PH/CG	Duty Capacity Study commissioned January 2012. Use findings to assist in compiling a proposal to carry out review of Licence to increase the tonnage though- put at facility	

A report on the progress against the proposed Objectives and Targets for 2012 will be presented in the AER in 2012.

6.0 **SUMMARY OF ENVIRONMENTAL MONITORING**

Environmental monitoring at the facility is carried out in accordance with Condition 6 and Schedule C of the Waste License, W0104-02. The following sections 6.1 to 6.3 present the results of monitoring for the year 2011.

The environmental media monitored and the frequencies of monitoring at the facility are as follows;

1) Noise Quarterly

Three times per year 2) Dust Deposition

3) Groundwater Quarterly 4) Surface-water Quarterly

Sections 6.0 present a summary of the Environmental Management Programme. These sections review the reports on the previous year (2011) and present proposals for the current year (2012).

6.1 Noise Monitoring Report Summary

In compliance with the requirements of the Waste License, W0104-02, noise monitoring at the Cappincur Waste Transfer Station was undertaken on a quarterly basis. This changed during October 2011, following correspondence between the Agency (EPA) and AES (Ref: W0104-02/AP061D), which confirmed that is was satisfactory to conduct noise monitoring on an annual basis. It was for this reason that quarter 4 noise monitoring was not undertaken at AES Tullamore. Monitoring was carried out on the 6th January (ECS3819), 21st April (ECS3929), and 15th July 2010 (ECS3979). Noise levels were monitored at 5 monitoring locations; four boundary locations and one noise sensitive location (NSL). The noise monitoring locations are presented in Table 6.1 and monitoring maps attached in Appendix 1.

Table 6.1 Noise Monitoring Locations		
Map Reference No.	o. Location Type Location	
N1	Boundary	North Western corner of site beside the main entrance
N2	Boundary	North Eastern corner of site beside the workshop
N3	Boundary	South Eastern corner at the back of the site.
N4	Boundary	South Western Corner at the back of the site beside the dog pound
NSL	Noise Sensitive Location	Private dwelling, attached to petrol station, on opposite side of main road, 300m from AES site.

Table 6.2 below shows the LAeq recorded at each monitoring location for each of the three monitoring events carried out during 2011.

Table 6.2 Noise Monitoring Results					
Repo	rt Ref	ECS3819	ECS3929	ECS3979	
Location	Duration	6 th January	21 th April	15 th July	
Location	(mins)	LAeq dB	LAeq dB	LAeq (dB)	
N1	30	64	60	60	
N2	30	62	61	60	
N3	30	51	57	56	
N4	30	55	62	61	
N5 (NSL)	30	55	51	52	

Note 1: Results highlighted in bold represent exceedence of Waste Licence limits (55dB(A)).

Noise exceedences of the EPA guideline limit (55 dB(A)) were noted at locations N1 & N2 for all monitoring events. As these locations are to the front of the site the primary cause of these exceedences may be attributed to heavy traffic on the nearby Tullamore Bypass adjacent Daingean Road.

Noise exceedences of the EPA guideline limit (55 dB(A)) were noted at locations N3 & N4 for most monitoring events. These locations are situated at the rear of the site. Primary contributors to these excedences were; traffic entering/exiting the rear of the site, traffic on the Tullamore bypass and dog barking from the nearby dog pound.

The dominant source of noise detected at the NSL was passing traffic (cars, vans, jeeps and lorries). Tonal noise was not detected during any of the monitoring events. Activity within the AES facility is not audible from this monitoring location during any of the monitoring events.

6.2 Ambient monitoring Report Summary

In compliance with the requirements of the Waste License, W0104-02, dust monitoring at the Tullamore Waste Transfer Station was carried out three times during the 2011 reporting period. There are four dust monitoring locations on site, detailed in Table 6.3, and the locations are indentified in Appendix 1

	Table 6.3	Dust Monitoring Locations	
Sample Name	Location		
D1		North western corner of the facility	
D2	North eastern corner of facility		
D3		South western corner of facility	
D4		South eastern corner of the facility	

Four dust sample jars were installed for a 29 day period; 6^{th} Jan. -4^{th} Feb (Round 1), for a 31 day period 10^{th} May -10^{th} June (Round 2) and finally for a 31 day monitoring period 5^{th} July -5^{th} August (Round 3). The results for the monitoring are presented in Table 6.4 below.

Table 6.4: Dust Monitoring Results (mg/m²/day)				
Report Ref.		ECS3819	ECS3929	ECS3979
Monitoring	Depositional	Deposition Rate	Deposition Rate	Deposition Rate
Location	Dust Limit	6 th Jan - 4 th Feb	10 th May -10 th Jun	5 th Jul - 5 th Aug
		Round 1	Round 2	Round 3
D1	350	134	soft all 167	189
D2	350	290	ostred 544	189
D3	350	93 stion of the	217	78
D4	350	13450th out	2704	128

Note 1: Results highlighted in bold represent exceedance of license limits.

As can be seen in Table 6.4, there were no exceedences noted for the January / February and July / August. depositional dust monitoring events.

During the May/June monitoring event, location D2 (544 mg/m²/day) exceeded the license limit. This exceedence was attributed to passing traffic on the Tullamore Bypass (120m approx.) and Tullamore Daingean Road (12m approx). This dust sample jar was not screened from these nearby roads and was therefore subject to dust created from grit particles becoming entrained in tyres of passing vehicles.

During the May/June monitoring event, location D4 received an extremely elevated result (2,704mg/m²/day). This result is not deemed representative of dust emissions from site at this location as the sample jar was heavily contaminated with green algae growth which had formed dark green globules of algal solids within the dust jar.

6.3 Groundwater Monitoring Report Summary

In accordance with the requirements of the company's Waste Licence, W0104- 02, AES are required to conduct monitoring of the Groundwater underlying the Tullamore facility on a quarterly basis. Monitoring was carried out at the three monitoring locations detailed in Table 6.5 and outlined in monitoring map attached in Appendix 1.

TABLE 6.5: LOCATION OF GROUND WATER SAMPLING WELL				
Sample Point	Location	Grid Reference		
GW-1	North-east corner of site	235683 E 225122 N		
GW-2	South-east corner beside bin storage area	235717 E 225243 N		
GW-3	South-west beside loading bay	235648 E 225156 N		

Groundwater monitoring was undertaken on 10th January (ECS3819), 10th May (ECS3929), 5th July (ECS3979) and 20th October (ECS4027) and the results are presented in Table 6.6.

Table 6.6 Groundwater Monitoring Results 2011 GW-1

This well became damaged at the start of 2011 and was therefore not sampled. A new well wa drilled during February 2012 to replace the old damaged well.

CW A					
GW-2					
Report Ref.	ECS3819	ECS3929	ECS3979	ECS4027	GTV's Note1
Parameter	Round 1	Round 2	Round 3	Round 4	GIV 5
pH (pH units)	7.4	7.42	7.34	7.4	6.5-9.5
Temperature (°C)	11.0	10.2	11	12.1	-
Odour	Faint Odour	Faint Odour	No Odour	No Odour	-
Conductivity (µS/cm)	627	646	721	580	800-1875
Ammonia as N (mg/l)	0.12	0.14	0.11	0.08	0.05-0.136*
DRO (µg/l)	<10	<10	<10	<10	-
Mineral oil (μg/l)	-	-	<10	<10	-
		GW-3			
Report Ref.	ECS3819	ECS3929	ECS3979	ECS4027	GTV's Note1
Parameter	Round 1	Round 2	Round 3	Round 4	GIV S
pH (pH units)	7.4		7.37	7.3	6.5-9.5
Temperature (°C)	11.5	110%	13.8	12	-
Odour	No Odour	No Odour	No Odour	No Odour	-
Conductivity (µS/cm)	593 the	543	539	537	800-1875
Ammonia as N (mg/l)	0.05	0.06	0.03	0.02	0.05-0.136*
DRO (µg/l))	<16	<10	<10	<10	-
Mineral oil (μg/l)	593 ing 0.050 of 1975 (10 0.050 of 1975 of 197	-	<10	<10	-

Note 1 : GTV = Groundwater Threshold Values refers to "European Communities Environmental Objectives (Groundwater) Regulations, 2010 (S.I. No. 9 of 2010)". "Threshold Values" have been established for pollutants that are causing a risk to groundwater bodies. Exceedance of a relevant threshold value at a representative monitoring point triggers further investigation to confirm whether the criteria for poor groundwater chemical status are being met.

Note 2: Results highlighted in bold represent exceedences of Waste Licence limits.

The results of the quarterly groundwater monitoring events indicated a slightly elevated concentration of Ammonia (0.14mg/l) at GW2 above its respective GTV (0.05-0.136mg/l) during round 2 monitoring conducted on the 10th May 2011. All remaining parameters tested for each monitoring event were within their respective GTV's.

6.4 SURFACE-WATER MONITORING REPORT SUMMARY.

In accordance with the requirements of the Waste Licence, W0104-02, the facility is required to conduct monitoring of surface-water on a quarterly basis. Surface water is sampled at one location as detailed in Table 6.7 below and included in Appendix 1 (map of monitoring locations).

Table 6.7 Surf	Surface water monitoring location		
Monitoring Location	Description		
SW-1	South west corner of facility (Discharge Point)		
(Formerly SW-2)	(Southern Boundary)		

Surfacewater monitoring was undertaken on 18th February, 10th May, 5th July and 20th October 2011 and the results are presented in Table 6.8.

Table 6.8 Surface Water Monitoring Results.(SW-1)					
Parameter	Quarter 1 18 th Feb	Quarter 2 10 th May	Quarter 3	Quarter 4 20 th Oct	Waste licence Discharge limit Note 1
Report Ref.	ECS3819	ECS3929	ECS3979	ECS4027	
pH (pH units)	7.5	107372	7.7	7.57	6-9
Conductivity µS/cm @ 25°C	544	den 446	375	654	1000
On-Site Visual Inspection	V.Pale Yellow/Clear No SS	Clear No SS	Clear, Very few S.Solids	Clear/Grey, No S.Solids	-
Odour	None	None	None	Slight	-
BOD (mg/l)	<2	<2	3	4	5
COD (mg/l)	16	16	<10	23	-
Suspended Solids (mg/l)	36	<5	<5	5	25
Ammonia as N (mg/l)	0.93	0.12	0.79	1.02	1
Chloride (mg/l)	42	22	36	34	250
Mineral Oil (μg/l)	<10	<10	<10	<10	5

Notes 1: Surface Water limits for discharge point only, outlined in Schedule C of Waste Licence (Ref No. W0104-02)

Notes 2: Results highlighted in bold represent parameters which have exceeded their respective limits.

As can be seen from Table 6.6 above, results indicated a slightly elevated concentration of suspended solids (36mg/l) above the Waste License Discharge Limit (25mg/l) for the quarter 1 monitoring event.

In addition a slightly elevated ammonia concentration (1.02 mg/l) was recorded above the Waste License limit (1mg/l) during the quarter 4 monitoring event.

All remaining parameters were within their respective Waste License Limits for each monitoring event.

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6.5 Bund Integrity Testing & Inspection Reports

Condition 6.7 of the Waste License states;

"The integrity and water tightness of all underground pipes and tanks and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee. The testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee"

Integrity Testing of the following bunds was carried out in October/November 2009 and found to be compliant.

- 1. Oil / Chemical Storage Bund
- 2. Diesel Storage Bund

The next bund integrity test is due to be carried out in the 2012 reporting period.

6.6 Environmental Management Programme

The Environmental Management Programme (EMP) form part of the objectives and Targets for the facility, presented in Tables 5.2. Specifically it is proposed for the coming year:

- Household glass bin being rolled out in Mullingar town.
- Continued roll-out of the household brown bin.
- To maintain EMS and ISO 140001standard.
- To conduct monthly meetings, to maintain momentum within the EMS team.
- Conduct a review of waste licence to increase the tonnage though-put at the facility.
- To install a dust suppression system inside the waste transfer building and erect netting around perimeter of facility to minimise dust emissions to neighbouring environs.

7.0 <u>SITE DEVELOPMENT & INFRASTRUCTURAL WORK</u>

7.1 Current Infrastructure in-place

The facility is currently licensed to accept a maximum of 50,000 tonnes of waste per annum. The site has calculated the duty capacity and stand-by capacity for the plant. The current waste handling and processing equipment is capable of handling up to as follows:

MRF Line (in current configuration), 100 tonnes per day, Industrial bailer, 200 tonnes per day, C&D area, 140 tonnes per day. Total = 88,000 tonnes per annum (i.e. assuming all MRF line material is bailed). The machinery and equipment currently on-site during 2011, is presented in Table 7.1

Table 7.1 Summary	list of plant machinery on site
Details	Number
Roro Trucks	6
Skip Trucks	7
RCV Trucks	7
Glass Truck	<u>ي</u> . 1
Rigid Cardboard Tuck	alterist 1
Vans	· · · · · · · · · · · · · · · · · · ·
Diggers	2
Cherry Picker	in Pit feeting 1 in out of the country of the count
Road Sweeper	own 1
Road Sweeper Bobcats Forktrucks	2
Forktrucks &	3
Baler	1
Shredder (Paper)	1
Shunter	1
MRF	1

7.2 Site Development Works during 2011

There were no site development works carried out during the 2011 reporting period.

7.3 Proposed Development Works for 2012

It is proposed to carry out the following site development works at the AES Tullamore facility;

- 1. Decommission GW! and drill new GW1 monitoring well along northern boundary.
- 2. Install a diesel tank on the southern boundary onsite see attached.
- 3. Erect netting along boundary fencing to prevent windblown items.
- 4. Routine maintenance conduct repairs to guttering and patch areas of yard with concrete.

8.0 ENVIRONMENTAL LIABILITIES (FINANCIAL PROVISIONS)

The environmental liabilities are those considered to be restricted to the confines of the facility, therefore, any costs incurred in addressing same will be limited to removal and safe disposal of waste remaining on-site following an emergency event (e.g. fire or spillage) or the decommissioning and closure of the site. Such environmental liabilities cover should account for the cost of the clean up and removal of the maximum amount of waste that may be stored on site at any given time.

AES and Bord na Móna (parent company) have arranged insurance to cover the liability arising from damage to property and injury to parties as a result of sudden and unforeseen environmental impairment. AES have insurance cover for "Business Interruption" and have adequate reserves for the cost of removing the maximum amount of waste that may be stored on-site at any given time and to ensure that said material is transported to an authorised and capable facility.

In the unlikely event of full decommissioning, financial reserves are available to allow a formal surrender of the licence ensuring that the inherent environmental safeguard associated with this regulatory process is activated.

Extra regulatory process is activated.

**Extra regul

9.0 FACILITY MANAGEMENT

9.1 New Procedures developed during 2011

9.2 Review of Nuisance Controls

The current procedures were in place during 2011 for Nuisance control and are fit for purpose (summarised below). No new controls are proposed for 2012. In compliance with Waste Licence, W0104-02 environmental nuisance are controlled to ensure they cause minimal impact on the immediate area.

- Waste destination for disposal may be stored within the Waste Transfer station and is generally removed from the facility within 48 hours of its arrival on-site during normal working times and within 72 hours of its arrival on-site during bank holidays. This is a waste handling procedure as part of the odour management system on-site.
- A daily inspection of the environmental nuisance controls for Vermin, Birds, Flies, Mud, Dust, Odour and litter is carried out. Nuisance inspection sheets are documented on-site on a weekly basis. A contract with a pest control company is in place to minimise environmental nuisance caused by vermin.
- All vehicles delivering waste to and removing waste and materials from the site are appropriately covered.

9.3 Incidents & Complaints Summary

All environmental incidents and complaints are recorded at the facility. During the 2011 reporting period, no complaints were received at the AES Tullamore facility.

The facility had the following incidents which were reported to the Agency;

Quarter 1

Noise exceedance at N1, N2 on 6th Feb 2011.

Surface water exceedence at SW-1 in Suspended Solids on the 18th February 2011.

Quarter 2

Noise exceedence at N1, N2, N3, N4 on 21st April 2011.

Dust exceedance at D2 & D4 (10th May-10th June 2011).

Groundwater exceedence at GW-2 in Ammonia on 10th May 2011.

Quarter 3

Noise exceedence at N1, N2, N3, N4 on 15th July 2011.

Quarter 4

Surface Water exceedance at SW-1 in Ammonia on 20th October 2011.

9.4 Accident Prevention and Emergency Response

Condition 9.1 of the Waste Licence states:

"The licensee shall ensure that a documented Accident Prevention Procedure is in place which will address the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary".

Condition 9.2 of the Waste Licence states:

"The licensee shall... ensure that a documented Emergency Response Procedure for the facility, which shall address any emergency situation which may originate on-site. This Procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary".

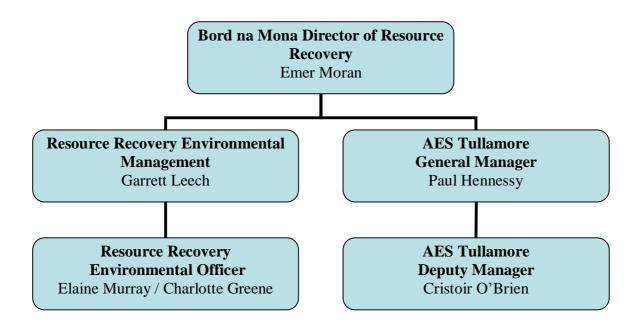
The accident prevention and emergency response has been prepared for the following:

- EP-ERP-01_General Emergency Preparedness & Response.doc
- EP-ERP-02_Spill Clean Up Procedure does
- EP-ERP-03_Fire Explosion Procedure.doc
- EP-ERP-04_Malicious Damage Procedure.doc
- EP-ERP-05_Unforeseen Emergencies & Fugitive Emissions.doc
- EPL 5.1_Emergency Contact List

These documents are attached in Appendix 2.

9.5 Staffing Structure

The management and staffing structure for the facility is presented in Figure 10.1



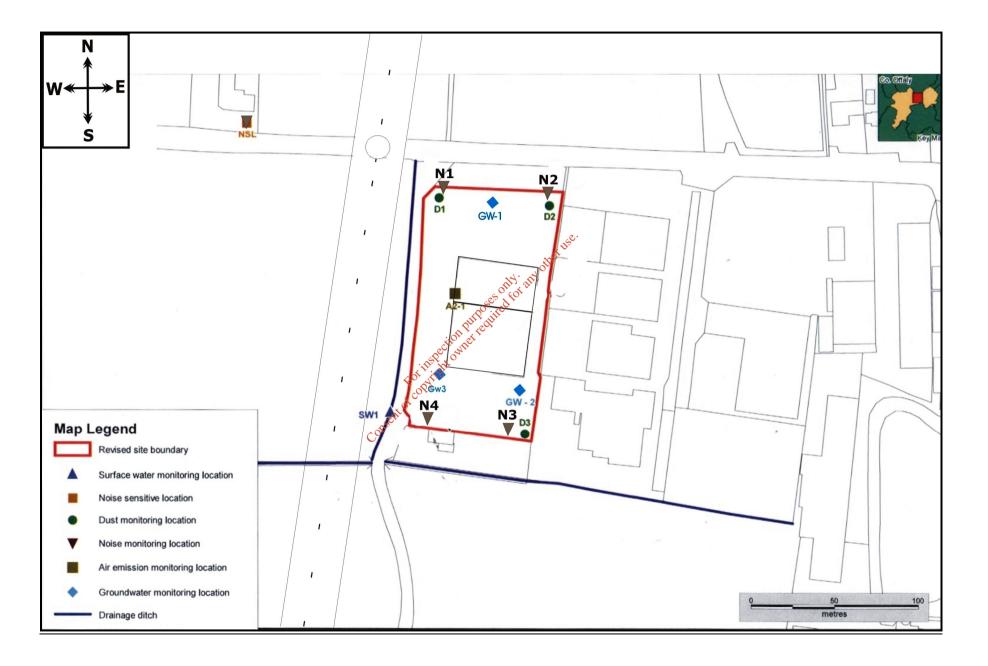
APPENDIX 1 one use.

Maps of Site Location & Monitoring Locations

Maps of Site Location on the Monitoring Locations

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APPENDIX 2

Accident Prevention & Emergency Response

Accident Prevention & Emergency Response

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To identify the potential for, and to respond to, accidents and emergency situations, Purpose:

and to prevent and mitigate the environmental impacts that may be associated with

Scope: The Scope of this procedure is the application of the Environmental Emergency Plan

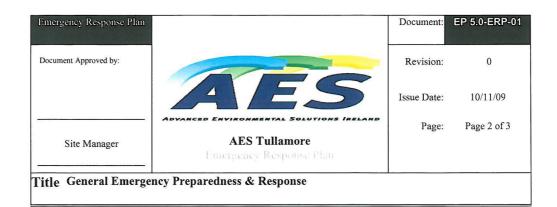
References: EP 5.0 Emergency Preparedness and Response

EPL 5.1 Emergency Contact List

EP 6.0 Environmental Incident Investigation and Reporting

Incident Contact List:

	on Conformance Puede	to Action Procedure any other use.	
Emergency Contact Lis	st for AES Nenagh	***	
Service / Agency	Address in and	Telephone Numbers	Fax / e-mail
EPA Regional Inspectorate	Seville Kodge, Callan Road, Kilkenny	056-7796700	056-7796798 info@epa.ie
Offaly County Council	Aras an Chontae, Charleville Road, Tullamore, Co. Offaly	057-93467800	webmaster@offalycoco.ic
Southern Regional Fisheries Board	Anglesea Street Cloumel, Co. Tipperary	052-80055	052-23971 enquiries@srfb.ie
Eastern Regional Fisheries Board	15a Main Street, Blackroek, Co. Dublin	01-2787022	01-2787025 info@crfb.ie



Procedure:

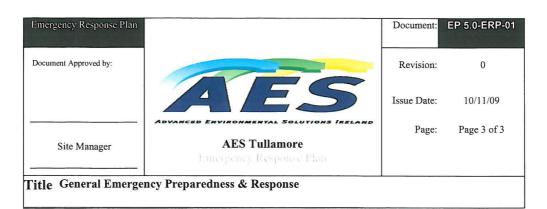
1. An Emergency Plan is prepared and maintained by AES Tullamore. This Plan details any emergency situation which could occur on site and the proposed response should this emergency occur. The Emergency Plan details procedures for the following occurrences:

Reference	<u>Description</u>
ERP 02	Spill Clean-up Procedure
ERP 03	Fire / Explosion Procedure
ERP 04	Malicious Damage Procedure
ERP 05	Unforeseen Emergencies uffectiff

- Should an emergency situation occur the relevant response procedure documented within the
 Emergency Plan is implemented. Each procedure details the emergency situation, the
 proposed response should this emergency occur and the potential environmental impacts of
 this occurrence.
- 3. The Site Manager shall assume the role of Site Incident Controller, with responsibility for
 - (i) assessing the scale of the incident
 - (ii) informing emergency services
 - (iii) directing rescue and fire-fighting operations.

In the absence of the Site Manager, the Deputy Site Manager shall assume the role of Site Incident Controller.

4. Following an emergency, the Site Manager (or in his/her absence Deputy Site Manager) shall record the details of the incident. Environmental Incident Investigation and Reporting Form EPF 6.1 shall be completed which is located within the procedure for Environmental Incident Investigation and Reporting (EMS Environmental Procedure EP 6.0). Following the environmental incident, appropriate procedures shall be implemented accordingly i.e. Environmental Incident Investigation and Reporting Procedures EP 6.0, Environmental Non-



Conformance Procedures EP 7.0 and Environmental Corrective and Preventative Action Procedure EP 8.0.

- 5. This procedure shall be reviewed by the Environmental Management team, annually or after the occurrence of an emergency situation. Additional procedures may be prepared as identified by environmental reviews/audits, environmental compliance monitoring reports, personnel during routine working hours or other communications which bring potential emergency situations to the attention of the Environmental Management Team.
- 6. The Site Manager shall notify the Environmental Protection Agency as soon as possible after the occurrence of an incident as per procedure EP 15.0 Reporting
- 7. In the case of any incident which relates to discharges to water, the Site Manager shall notify the Local Authorities and the Southern Regional Fisheries Board as soon as practicable after the incident
- 8. On a weekly basis, all emergency response equipment shall be checked to ensure it is provided in agreed quantities and in suitable working order.
- In the case that an emergency situation arises outside the hours of operation, the contact details for the designated person on call are displayed on the Facility Notice Board at the entrance to the site.



Title Spill Clean up procedure

Purpose:

This procedure details the steps to be taken when dealing with a spillage of a hazardous substance on site. It is required in order to:

- Protect Employees
- Protect the Environment
- Prevent Fugitive Emissions

Scope: This procedure applies to AES Tullamore.

Procedure:

Note:

Sould, and other use This procedure should be followed for all small, large and massive spills, which may occur.

Definitions:

Small Spill: Less than 5 litres

Greater than 5 litres and less than 250 litres. Large Spill:

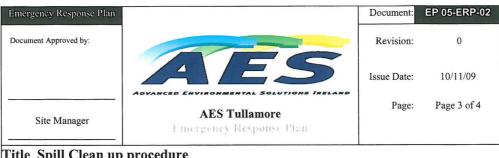
Massive Spill: Greater than 250 litres

1. Hazardous materials shall be handled (loaded, unloaded and moved) by a competent person using the correct equipment and appropriate protective clothing. Appropriate precautions should be taken at all times to minimise the risk of accidental spillage.

- 2. In the event of a spillage occurring, the Site Manager or the Deputy Site Manager shall initially investigate the following issues:
 - How long it has been since the incident occurred.
 - Consult the relevant data sheets (Material Safety Data Sheets or otherwise) for the method of spill containment and fire control of the affected material.
 - Contact the relevant emergency response number (local fire service, police, hospital and Environmental Protection Agency telephone numbers which are detailed on the Emergency Contact List.

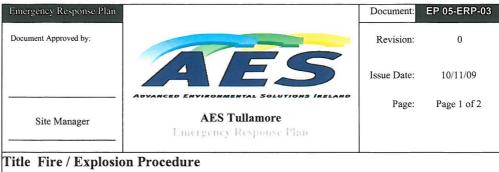


- Locate the nearest fire suppression system as appropriate; Dry powder extinguishers for ABC fires [wood, paper, textiles, liquid fuels and gases]
 Foam extinguishers for AB fires [wood, paper, textiles and liquid fuels] Carbon Dioxide [liquid fuel fires and electrical equipment].
- Note the wind direction and any possible sources of ignition i.e. naked lights, machinery, electrical fittings, and combustible material and remove them from the area.
- 3. Evacuate the area (for large spills if necessary)
 - The Facility Manger or any other designated person from the Emergency Response Team shall ensure that all personnel are evacuated in a calm, efficient manner. Staff should be instructed to walk briskly to their designated evacuation locations.
 - If flammable material is involved in the spill, isolate equipment and materials that may be affected.
 - If deemed necessary the Site Manager or any other designated person from the Emergency Response Team shall instruct for the appropriate emergency services to be contacted.
- 4. The spillage must be contained using absorbent material, socks, booms or absorbent granules to create a secure dike. The Site Manager or any other designated person from the Emergency Response Team shall ensure that all appropriate personal protective equipment is worn [as detailed in the Material Safety Data Sheet for the spilled material(s)].
- 5. If the spillage emanated from a drum, position the drum so that the ruptured section is in an upwards direction, thereby preventing a further leakage.
- 6. Once the spill has been contained the liquid shall either be pumped, or removed into a container using non-spark shovels and labelled appropriately (contents, name and date).
- 7. Clean up Operation.



Title Spill Clean up procedure

- Use non-sparking shovels and brushes to sweep the spilled material into containers.
- Start on the outside and work in towards the centre of the spill.
- · Do not mix different types of waste.
- Drum the waste and seal the container or bag and double bag.
- · Label the waste with the destination name, appropriate hazard label and name of waste giving as much information as possible on contents, plus concentrations of constituents, etc.
- If the spill occurred due to a damaged drum, place the ruptured drum into a salvage drum container, until disposalis arranged.
- Decontaminate personnel by using the washing facilities.
- 8. Any waste material resulting from a spillage clean-up shall be dispatched to an appropriate facility for disposal and/or recovery. If the affected material is considered hazardous, it is stored in a container and collected as soon as possible by a certified hazardous waste disposal contractor.
- 9. Following an emergency, the Site Manager shall record details of the incident. Following a comprehensive investigation into the source of the emergency situation, a corrective action shall be formulated as per EP 10.0
- 10. Offaly County Council and the EPA shall be informed if hazardous chemical or firewater infiltrates the drainage network.
- 11. The Site Manager must ensure that the resultant depleted spill kit (s) is /are replenished without delay. He must also ensure that replenishment stock is reordered straightaway.
- 12. On a weekly basis all spill response equipment shall be checked to ensure it is provided in agreed quantities and in suitable working condition.



Purpose:

A procedure to deal with fire/explosion emergencies is required for the following reasons:

- To protect Employees.
- To protect the Environment.
- To prevent fugitive emissions.

This procedure applies to AES Tullamore. Scope:

Procedure:

- 1. Employees shall only attempt to fight a fire if safe to do so. If an employee feels that they cannot tackle a fire safely and effectively, EVACUATION OF ALL PERSONNEL IS THE PRIMARY PRIORITY.
- 2. The Site Manager or Deputy Site Manager shall evacuate the area in a calm, efficient manner. All staff and contractors shall be instructed to walk briskly to the designated evacuation point.
- 3. In the event of a fire/explosion occurring, the Site Manager shall complete a role call to account for all employees and contractors that may be present on-site.
- 4. The Site Manager shall identify the location of the fire/explosion risk through dialogue with the individual who discovered the fire and shall take one of the following actions:
- 5. Determine whether the fire can be **SAFELY** isolated utilising the available fire fighting equipment.
- 6. If the fire is not controlled with the fire fighting equipment available, the local fire brigade shall be notified immediately. Local fire, police and hospital telephone numbers are detailed on the Emergency Contact List. These details are displayed at reception and within the site office. The Site Manager or any other designated person from the Emergency Response Team should;
 - a. Dial 112 for emergency services
 - b. Request emergency service
 - c. Give details of type of emergency and phone number in case call is inadvertently disconnected



- d. Provide information requested by call recipient
- Determine estimated time of arrival to site and communicate this information to the relevant member of ERT.
- f. Hang up only when told to do so by call recipient
- g. Fill out details required by emergency contact log as soon as it safe to do so.
- 7. If the fire can be safely isolated, locate the nearest fire suppression system as appropriate; Dry powder extinguishers for ABC fires [wood, paper, textiles, liquid fuels and gases] Foam extinguishers for AB fires [wood, paper, textiles and liquid fuels] Carbon Dioxide [liquid fuel fires and electrical equipment]. Only small localised fires should be extinguished in this manner.
- 8. Note the wind direction and any possible sources of ignition i.e. naked lights, machinery, electrical fittings, and combustible material and remove them from the area.
- 9. Personnel shall not re-enter buildings unless the Site Manager/Fire Officer deems it safe to do so.
- 10. Once the fire has been extinguished or the explosion controlled on site, personnel shall complete a clean up operation as per EP05-ERP-02 using the available resources.
- 11. Effected areas shall be checked thoroughly in order to ensure that the fire is quenched. If the affected material is considered hazardous, it is stored in a container and collected as soon as possible by a certified hazardous waste disposal contractor.
- 12. Following an emergency, the Site Manager, or other designated responsible person shall record details of the incident as per EP 6.0 Incident Investigation Procedure



902

<u>Purpose:</u> This procedure is required in order to monitor and prevent malicious damage.

Scope: This procedure applies to AES Tullamore.

Procedure:

1. Where any occurrence of malicious damage is noted or where persons are observed causing malicious damage, the Site Manager shall be informed as soon as is practical.

- 2. Where malicious damage results in a significant environmental impact, or a potentially significant environmental impact, the Site Manager shall be advised who then undertakes to minimise and repair the damage caused.
- 3. Persons observed causing matricians damage shall be subjected to internal disciplinary action. The Site Manager, will report external persons to the Gardaí.
- 4. Following an emergency, the Site Manager, or other designated responsible person shall record details of the incident as per EP 6.0 Incident Investigation and Reporting.

EP 5.0-ERP-05 Document: Document Approved by: Revision: 10/11/09 Issue Date: Page: Page 1 of 2 **AES Tullamore** Site Manager Emergency response Plan

Title Unforeseen Emergencies and Fugitive emissions

The purpose of this procedure is to outline the procedure to be adhered to in the event Purpose:

of an unforeseen emergency.

Scope: This procedure applies to the AES Tullamore.

Procedure:

1. Following the occurrence of an incident requiring emergency action, the observant shall contact the Site Manager or in his absence most senior representative of management on-site.

- 2. Access situation and severity. Request emergency services where necessary. If calling for the emergency services, local Fire, police and hospital telephone numbers are detailed on the Emergency Contact List displayed within the Main Site Office, the Weighbridge Office and the Site Managers Office.
 - a. Dial 112 for emergency services
 - b. Request emergency service
 - c. Give details of type of emergency and phone number in case call is inadvertently disconnected
 - d. Provide information requested by call recipient
 - e. Determine estimated time of arrival to site and communicate this information to the relevant member of ERT.
 - f. Hang up only when told to do so by call recipient
 - g. Fill out details required by emergency contact log as soon as it safe to do so.
- 3. Should the incident be determined to be capable of being addressed in-house under the guidance of the most senior representative of management on-site, the Environmental Emergency Response Team shall be mobilised paying due regard to the appropriate emergency response procedure (EP 05-ERP-1-5).
- 4. In the event the situation involves a Man Down, do not move the casualty until First Aid or Emergency Services give instruction.
- 5. Once ERT arrive at the incident, all contractors and visitors must be directed to the assembly point.



Title Unforeseen Emergencies and Fugitive emissions

- 6. In the event the Emergency Services are called, ERT will cordon off the area and ensure emergency services access is clear to the incident site.
- 7. Move all machinery not involved clear of the incident and switch engines off.
- 8. Once the situation is under control and has been deemed safe by the Site Manager or most senior member of management on site then the relevant report forms must be completed and the HSA informed where relevant.
- 9. In the event that the incident gives rise to an emission the Site Manager and the Emergency Response Team shall immediately
 - Isolate the source of any such emission
 - Carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising there from
 - Evaluate the environmental pollution of any caused by the incident
 - Identify and execute measures to minimise the emissions or malfunction and the effects thereof
- 6. Following an emergency, the Site Manager, or other designated responsible person shall record details of the incident per procedure EP 6.0 Environmental Incident Investigation and Reporting. The Site Manger shall also identify and put in place measures to avoid reoccurrence and put in place any other appropriate remedial action. These corrective actions shall be documented as per procedure EP 8.0 Corrective and Preventive Action Procedure.
- 7. The Site Manager shall provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency.

APPENDIX 3

Summary of Emissions and Waste Management
(PRTR)

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Page 40



Schedule 2 of the regulations) ? Is the reduction scheme compliance route being used ?

[PRTRIS : W0104 | Facility Name : Advanced Environmental Solutions (Ireland) Ltd | Filaname : W0104_2011(5).de | Return Year : 2011 |

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.13

REFERENCE YEAR	2011
A MARKAGAN CONTRACTOR	9
. FACILITY IDENTIFICATION	
	Advanced Environmental Solutions (Ireland) Ltd.
	Advanced Environmental Solutions (Ireland) Ltd
PRTR Identification Number	
Licence Number	W0104-02
Waste or IPPC Classes of Activity	
	olacc_name
100	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.
	Blending or mixture prior to submission to any activity referred to
3.11	a preceding paragraph of this Schedule.
	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 precedi
	paragraph of this Schedule, other than temporary storage, pendin
	collection, on the premises where the waste concerned is
3.13	produced.
	Exchange of waste for submission to any activity referred to in a
4.12	preceding paragraph of this Schedule.
	Recycling or reclamation of organic substances which are not use
	as solvents (including composting and other biological
	transformation processes).
	Recycling or reclamation of metals and metal compounds.
	Recycling or reclamation of other inorganic materials.
	Cappince Industrial Estate
	Capplinitur
	Tullamate
Address 4	Co Offely
<u> </u>	
	Offaly
	reland
Coordinates of Location	
River Basin District NACE Code	
	Recovery of sorted materials
AER Returns Contact Name	
AER Returns Contact Email Address AER Returns Contact Position	Chanoue greeneganua.ie
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	
Web Address	
1000 000000	
PRTR CLASS ACTIVITIES	
otivity Number	Activity Name
0.1	General
(c)	Installations for the disposal of non-hazardous waste
0.1	General
. SOLVENTS REGULATIONS (S.I. No. 643 of 20	002)
is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per	
Ochadula 7 of the regulations \ 7	

Page	41
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				all quantities on this sheet in Tonn					Haz Waste : Name and			
			Quantity (Tonnes per Year)		Waste		Method Used		Licence/Permit No of Next Destination Facility Haz Waste Name and Licence/Permit No of Recover/Disposer	1. Haz Wasle: Address of Next Destination Facility Non Haz Wasle: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destinat i.e. Final Recovery / Disposal S (HAZARDOUS WASTE ONL)
er ar ar sec ur	European Waste	Jun 1995			Treatmen			Location of				
ransfer Destination	Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment		Heath Hse. 5 Woolgate		
										Court,St. benedicts St.,Norwich,NR2AP,United		
Other Countries	15 01 01	No	76.28	paper and cardboard packaging	R13	М	Weighed	Abroad	International Recycling,	Kingdom Ballymount		
Other Countries	15 01 01	No	173.68	paper and cardboard packaging	R13	м	Weighed	Abroad	Irish Packaging Recycling,WRP 021/02	Road, Walkinstown, Dublin 12,., Ireland Towers Bus. Pk., Wilmslow		
Other Countries	15 01 01	No	6510.01	paper and cardboard packaging	R13	м	Weighed	Abroad	(MLM) ACM Europ (UK),.	Rd.,Didsbury,Manchester,Un ited Kingdom		
Other Countries	15.01.02	No	1052.7	plastic packaging	R13	м	Weighed	Abroad , 15°.	Asia Global Trade Ltd.,	Suite 5,30 Lancaster Gate,London,,,United Kingdom		
Outer Countries	15 0 1 02	140	1002.1	plastic packaging			3-01-7-2-07-1	ather		Unit 2,Brittania Business Pk.,Wallsend,Tyne &		
Other Countries	15 01 02	No	551.09	plastic packaging	R13	М	Weighed Weighed Weighed Weighed Weighed	Abroad	AWS,EA. WML/7327	Wear, United Kingdom Unit 5 Nutts Corner Bus. Pk., Dundrod Rd.		
							Sep 91		Cherry	Crumlin,Co. Antrim,.,United		
Other Countries	15 01 02	No	220.86	plastic packaging	R13	М	Weighed	Abroad	Polymers,WMEX01/31 Danelle Recycling	Kingdom Tinypark,Quinagh,Co.		
ithin the Country	15 01 02	No	107.28	plastic packaging	R13	M -Č	Weighes	Offsite in Ireland	Ltd.,WP/25/06	Carlow,,,Ireland Heath Hse. 5 Woolgate Court,St. benedicts		
Other Countries	15 01 02	No	122.2	plastic packaging	R13	Webs.	Weighed	Abroad	International Recycling,	St.,Norwich,NR2AP,United Kingdom		
ithin the Country	15 01 02	No	14.08	plastic packaging	R13 FO	MILES	Weighed	Offsite in Ireland	JFC Plastics,WP	Weir Road, Tuam, Co. Galway, ,, Ireland		
					& C	3.			Leinster	Clermont Bus Pk.,Haggardstown,Dundalk		
ithin the Country	15 01 02	No	429.06	plastic packaging	R13 FOT R13 FOT CO	М	Weighed	Offsite in Ireland	Environmental,WP2008/06	Co. Louth, Ireland Portarlington Ind Est, East		
ithin the Country	15 01 02	No	0.52	plastic packaging	COIN R13	м	Weighed	Offsite in Ireland	Polymer Recovery,WFP-LS- 09-0007-01	Canal Road, Portarlington Co. Laois, Ireland Baanhoekweg 4 , 3313 LA		
Other Countries	15 01 02	No	329.52	plastic packaging	R13	М	Weighed	Abroad	Peute,	Dordrecht,,Netherlands Killycard Ind		
ithin the Country	15 01 02	No	508.92	plastic packaging	R13	М	Weighed	Offsite in Ireland	Shabbra,WFP08-0022-01	Est,Castleblaney,Co. Monaghan,,Ireland		
ithin the Country	15 01 02	No	71.34	plastic packaging	R13	М	Weighed	Offsite in Ireland	Weir Waste, WCP-MO-09- 0608-02	Weir Rd Bus. Pk.,Tuam,Co. Galway,,,Ireland		
,							msecondocal .			Floors Street, Johnstone, PA58QS,		
Other Countries	15 01 02	No	187.48	plastic packaging	R13	M	Weighed	Abroad	WRC,. Hammond Lane,WFP-WM-	United Kingdom Garrycastle, Athlone, Co.		
thin the Country	15 01 04	No	664.98	metallic packaging	R13	М	Weighed	Offsite in Ireland		Westmeath,,,Ireland 18 Manor Valley,Weston		
Other Countries	15 01 04	No	29.74	metallic packaging	R13	М	Weighed	Abroad	Tandom,	Super Mare,.,BS232SY,United Kingdom 47 Saffham		
Other Countries	15.04.00	No	600.04	mixed packaging	R13	М	Weighed	Abroad	Boost Recycling,	Rd,Burwell,Cambridge,CB25 0AN,United Kingdom		

										Benelux BV, Heul
									Brightner.	7,Geltrop,NL5664,Netherlan
To Oth	er Countries	15 01 06	No	609.42 mixed packaging	R13	М	Weighed	Abroad	Cellmark,.	ds Troon, Scotland, KA109AQ,
T- 0#		45.04.00	No	24.8 mixed packaging	R13	M	Weighed	Abroad	Eastbound	United Kingdom
	er Countries er Countries		No	2147.46 mixed packaging	R13	M	Weighed	Abroad	N.N. VOPC,	Belgium
						- 220	tet-t-bank	Abanad	Peute	Baanhoekweg 4 , 3313 LA Dordrecht,,,,Netherlands
	er Countries		No	12514.92 mixed packaging 18.64 glass packaging	R13	M	Weighed Weighed	Abroad Offsite in Ireland	Gannons.	Inclined
Within	the Country	15 01 07	No	10.04 glass packaging	11.15		Wolginoo			Unit 4 Osberstown Ind.
							1960 (FIST) (FI		Rehab Glassco, WFP-KE-08-	Pk.,Carragh Rd. Naas,Kildare,,,Ireland
Within	the Country	15 01 07	No	384.66 glass packaging	R13	М	Weighed	Offsite in Ireland	0357-01	504 A Grants
										Drive, Greenogue Ind
Within	the Country	15 01 09	No	0.38 textile packaging	R13	M	Weighed	Offsite in Ireland	Textile Recycling Ltd.,.	Est, Dublin 24, , , Ireland
				mixture of concrete, bricks, tiles and						Killinagh Upper,Carbury,Co.
Mithio	the Country	17.01.07	No	ceramics other than those mentioned in 17 299.46 01 06	R13	М	Weighed	Offsite in Ireland	Drehid WMF,W0201-03	Kildare, , Ireland
VVIIIIII	the Country	17 01 07	140	233.40 01 00						Kileen
					D40		Malahad	Officito in Iroland	Thorntons Waste ,W0044-02	Rd.,Ballyfermot,Dublin
Within	the Country	17 02 01	No	751.11 wood	R13	М	Weighed	Offsite in freiand	THORNOUS WASIE, WOOTT OF	Deep Water Quay, Finisklin
								e.		Sligo Harbour,Co. Sligo,WP-
Within	the Country	17 04 07	No	653.94 mixed metals	R13	M	Weighed	Offsite in Ireland	Erin Recyclers,. Hammond Lane, WFP-WM-	SO-08-93, Ireland Garrycastle, Athlone, Co.
		47.04.07	No.	61.56 mixed metals	R13	M	Weighed	Offsite in Ireland		Westmeath, Ireland
Within	the Country	17 04 07	No	soil and stones other than those mentioned	KIS			A		Killinagh Upper,Carbury,Co.
Within	the Country	17 05 04	No	34.9 in 17 05 03	D1	M	Weighed (1)	Offsite in Ireland	Drehid WMF,W0201-03	Kildare,.,Ireland Millenium Hse,Main St
				gypsum-based construction materials other			Weighed only.		Gypsum Recycling,WMP-	Tullamore,Co.
Within	the Country	17 08 02	No	12.74 than those mentioned in 17 08 01	R13	M	Weighed :	Offsite in Ireland		Offaly, Ireland
***************************************	and Country	11 00 02	0.00	mixed construction and demolition wastes			ANY AN			Proudstown Ind Estate, Navan, Co.
		47.00.04	No.	other than those mentioned in 17 09 01, 17 591.88 09 02 and 17 09 03	R13	M	Weighed Weighed	Offsite in Ireland	AES Navan,W0131-02	Meath, Ireland
Within	the Country	17 09 04	No	mixed construction and demolition wastes	KIO	chi	WIT			
				other than those mentioned in 17 09 01, 17		LASP X		Officia in Iroland	AES Portlaoise,W0194-02	Kyletalesha,Portlaoise,Co. Laois,,,Ireland
Within	the Country	17 09 04	No	1118.03 09 02 and 17 09 03 mixed construction and demolition wastes	R13	THE MILE	Weighed	Offsite in Ireland	AES FUNIAUISE, WU 154-02	Edvis, , notatio
				other than those mentioned in 17 09 01, 17	Ç.	2 Alive			Derryclure Landfill, W0029-	Portlaoise Rd.,Tullamore,Co.
Within	the Country	17 09 04	No	308.42 09 02 and 17 09 03	D1 .	ODM Stilling	Weighed	Offsite in Ireland	02	Offaly,,,Ireland
				mixed construction and demolition wastes other than those mentioned in 17 09 01, 17	X OF					Killinagh Upper,Carbury,Co.
Within	the Country	17 09 04	No	15.1 09 02 and 17 09 03	P	M	Weighed	Offsite in Ireland	Drehid WMF,W0201-03	Kildare, Ireland
•••••		111/2/2000		~ OF	Y	220		Official to be leadered	AEC Derthoire W0104 02	Kyletalesha, Portlaoise, Co.
Within	the Country	19 05 03	No	61.54 off-specification compost other wastes (including mixtures of	D1	M	Weighed	Offsite in Ireland	AES Portlaoise,W0194-02	Laois,,,Ireland
				materials) from mechanical treatment of						Unit 6,Ballyogan Bus.
				wastes other than those mentioned in 19 12		220		Offsite in Issland	Cronstar Remeding	Pk.,Sandyford Dublin 18,,,Ireland
Within	the Country	19 12 12	No	24.66 11 other wastes (including mixtures of	R13	M	Weighed	Offsite in Ireland	Grenstar Recycling,	1944 October 1941
				materials) from mechanical treatment of						
				wastes other than those mentioned in 19 12		100	10.00	Officer to tool	Combaund Deputing	Crag Avenue,Clondalkin Ind Est,Dublin 22,Ireland
Within	the Country	19 12 12	No	2568.46 11	R13	М	Weighed	Offsite in Ireland	Greyhound Recycling,.	Est, Dublin 22, , Ireland Kyletalesha, Portlaoise, Co.
Within	the Country			210.76	D1	M	Weighed	Offsite in Ireland	Laois Landfill,.	Laois,.,Ireland
**********	Country						2000			Benelux BV,Heul 7,Geltrop,NL5664,Netherlan
		00.04.04	No	25.7 paper and cardhaard	R13	М	Weighed	Abroad	Cellmark,	ds
To Oth	er Countries	20 01 01	No	25.7 paper and cardboard	KIS	IM.	Trugillou			Derrinlough,Birr,Co.
Within	the Country	20 01 01	No	91.56 paper and cardboard	R13	M	Weighed	Offsite in Ireland	Erin Horticulture,	Offaly,, Ireland 11 Triangle
	- 5%								Failand Packaging	South, Clifton, Bristol, BS81EY
To Oth	er Countries	20 01 01	No	435.48 paper and cardboard	R13	M	Weighed	Abroad	Recycling,.	,United Kingdom
10 011	u Countiles	200101	110						Islah Dagkagina	Ballymount Road,Walkinstown,Dublin
-		00.04.04	614	24 E2 manner and courtly and	R13	М	Weighed	Abroad	Irish Packaging Recycling, WRP 021/02	12,,,Ireland
To Oth	er Countries	20 01 01	No	31.52 paper and cardboard	KID	IVI	Weighted	Autodu	ricojomigittiti on non	

				discarded electrical and electronic equipment other than those mentioned in 20 01 21 and and 20 01 23 containing						Web Bood Town Co	ISOS NAME AND A STATE OF THE ST	Hardwick Rd., Astmoor Ind
	Within the Country	20 01 35	Yes	0.78 hazardous components	R13	M	Mainhad	Official in Instance	IEO Diseites MID	Weir Road, Tuam, Co.	JFC Plastics Ltd, ,Weir Rd	Est ,Runcorn ,Cheshire.
	Thomas and Country	200100	165	0.70 Hazardous components	KIS	IVI	Weighed	Offsite in Ireland	JFC Plastics,WP	Galway, Ireland	,Tuam,Co. Galway, ,Ireland	WA71PH,United Kingdom
	Within the Country	20.04.20	No	16.82 plastics	240	227			100000000000000000000000000000000000000	Weir Road, Tuam, Co.		
	widin die Country	200139	NO	16.82 plastics	R13	M	Weighed	Offsite in Ireland	JFC Plastics,WP	Galway,,,Ireland		
										Clermont Bus		
	Makin the Country	20.04.20	440	404.00 1 11	20003	699			Leinster	Pk.,Haggardstown,Dundalk		
	Within the Country	20 01 39	No	101.92 plastics	R13	M	Weighed	Offsite in Ireland	Environmental,WP2008/06	Co. Louth,,,Ireland		
										Portarlington Ind Est, East		
									Polymer Recovery, WFP-LS-	Canal Road, Portarlington		
	Within the Country	20 01 39	No	1.38 plastics	R13	M	Weighed	Offsite in Ireland	09-0007-01	Co. Laois, Ireland		
							3.000 BB (10.000)			Kilberry ,Athy,Co.		
	Within the Country	20 02 01	No	20.44 biodegradable waste	R13	M	Weighed	Offsite in Ireland	BNM Kilberry, W0198-01	Kildare, Ireland		
										Killinagh Upper, Carbury, Co.		
- 4	Within the Country	20 03 01	No	16248.58 mixed municipal waste	D1	M	Weighed	Offeite in Ireland	Drehid WMF,W0201-03	KildareIreland		
			4.00	TOE TO TO THINK OF THE HOUSE	0,		Weighed	Offsite in freiand	Diema Will , WOZO 1-03	Kyletalesha, Portlaoise, Co.		
4	Within the Country	20.03.01	No	4362.16 mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Look London			
	Whitin the Country	20 00 01	140	4302. To mixed municipal waste	DI	IVI	weighed	Offsite in Ireland	Laois Landrii,	Laois, , Ireland		
										Merrywell Ind		
٠,	Million the Country	20.02.04		496 4 1861 4 1861 4 1861 4 1861 4 1861 4 1861 4 1861 4 1861 4 1861 4 1861 4 1861 4 1861 4 1861 4 1861 4 1861 4	The same of	1.00	August and the second	1 may 2 min 1 min 2 min		Est.,Ballymount,Dublin		
	Within the Country	20 03 01	No	178.4 mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Oxigen,W0208-02	22,,Ireland		
- 4			74497	100000000000000000000000000000000000000	002000	980		- JE		Killinagh Upper,Carbury,Co.		
1	Within the Country	20 03 03	No	15.56 street-cleaning residues	D1	M	Weighed	Offsite in Ireland	Drehid WMF,W0201-03	Kildare,,,Ireland		
								Oth		Ballintrane, Carlow, Co.		
3	Within the Country	19 05 03	No	45.82 off-specification compost	R13	M	Weighed	Offsite in Ireland	O'Toole Composting,	Carlow, , Ireland		

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

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

Attachment H.1 (C) Waste Types & Quantities

A summary of the types and quantities of waste that are and will be accepted at the facility is provided in Table H1.1. A detailed inventory of the types and quantities of waste handled at the facility is included in the AER Returns Workbook for 2011, a copy of which is included in this Attachment. This includes the EWC codes for the wastes accepted. It is not possible to accurately estimate the amounts of each individual EWC Code that will be part of the increased waste inputs, but it is expected that the majority will be EWC 20 03 01.

Table H1.1

Waste Type	Tonnes/Annum Existing*	Tonnes/Annum Proposed*
Household	14000	27000
Commercial	26000	28000
Construction & Demolition	9800	4800
Industrial Non- Hazardous	49800	59800
Hazardous	200	200 x
Total	50,000	differ 60,000

Note: Household split into DMR and Household MS W. Request 20000 for DMR and 7000t MSW *Subject to Market Conditions, the actual amounts of different waste types may vary but the total will not be

Attachment H.4 Waste Arisings

Small quantities of municipal waste are generated in the canteen and on-site offices. This waste will be processed through the provisions in site operations. Any residual waste generated will be sent off-site to an appropriate licenced facility.

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Attachment H.3 Waste Handling

Different waste streams are handled in different parts of the Processing Building. Mixed dry recyclables/mixed wastes are off loaded in the southern part of the building while Construction and demolition waste and commercial skip waste is processed in the northern part.

Construction and demolition waste and commercial skip wastes are unloaded in the northern section of the Building and spread out using an excavator. Recoverable/recyclable material is removed and non recyclable material is sent off site for disposal.

Pre-sorted dry recyclable material, including newspapers, aluminium cans, plastics, magazines, steel cans, cardboard packaging and Tetra-paks are deposited on the floor of the Processing Building and loaded onto a conveyor that feeds a manual picking line installed at an elevated height. The recoverable/recyclable materials are manually picked from the waste and placed in containers underneath the picking line. After passing through the picking line, the remaining materials pass through a magnetic separator and eddy current separator to recover both ferrous and non ferrous metals.

Certain recyclable materials, such as paper, cardboard, plastics and metals are baled and temporarily stored pending consignment from the facility

Residual MSW and the non-recyclables separated out from the other wastes are bulked up and loaded into articulated trailers and sent from the facility to authorised waste disposal facilities.

1 of 1

Attachment H.2 Waste Acceptance Procedures

All waste accepted at the facility is subject to waste acceptance procedures that have been approved by the EPA and form part of the facility's environmental management system (EMS). The current waste acceptance procedure involves the use of an integrated waste software system called Integrated Waste System (IWS). The software is linked to the on-site weighbridge and is used to record details of the waste type, EWC code, vehicle registration number, and customer name.

Wastes are only accepted from waste collectors that have an up to date Waste Collection Permit. Each waste load is weighed at the weighbridge and the vehicle registration number entered into the software system and a docket is printed for each waste load. After weighing, each waste load is directed into the Processing Building, where the wastes is off loaded onto the floor and visually inspected by the Waste Segregation Manager and a written record maintained. Unsuitable wastes are separated out and placed in the Quarantine Area pending removal from the facility.

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