



ANNUAL ENVIRONMENTAL REPORT 2012

GREYHOUND RECYCLING & RECOVERY

Crag Avenue
Clondalkin Industrial Estate,
Dublin 22

EPA Licence W0205-01

CONTENTS

1. Introduction	3
2. Licensed Activities	3
3. Waste Accepted 2012	3
4. Waste Quantities 2012	4
5. Environmental monitoring and emission data 2012	6
6. Resource and energy consumption 2012	8
7. Facility Development works 2012	9
8. Environmental Systems and Procedures	10
9. Environmental Objectives and Targets for 2013	11
10. Incidents 2012	14
11. Complaints 2012	14
12. Odour Management Programme	14
13. Review of nuisance controls.	14
14. Volume of trade effluent / leachate and / or contaminated Storm water produced and volume transported off-site	15
15. Financial Provision	15
16. Management and Staffing Structure	16
17. Programme for Public Information	17
18. Residual Management Plan	17
19. Environmental liabilities risk assessment	17

1. INTRODUCTION

The following Annual Environmental Report was prepared in accordance with Condition 11.11 and Schedule E of the waste licence W0205-01, and with reference to Environmental Protection Agency guidance on Annual Environmental Reporting. This AER is detailing the activities carried out at the facility in the period from 1st January 2012 to 31st December 2012.

2. DESCRIPTION OF THE SITE AND LICENSED ACTIVITIES

Greyhound Recycling and Recovery (GRR), Sustainable Resource Recovery Facility at Crag Avenue, Clondalkin Industrial Estate, Dublin 22, is surrounded in an Industrial Estate by various warehouses and industrial buildings. The estate is bounded to the west by the M50 Motorway, to the south by the Grand Canal, to the east by Clover hill Road and to the north by the Dublin-Kildare railway line and Clover hill Industrial Estate, an industrial estate managed by the IDA.

Greyhound Recycling and Recovery Limited, at Crag Avenue site commenced its operation under the Waste Licence W0205-01 in September 2007. This licence allows carrying out following activities:

- Class 11, 12, and 13 Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Act, 1996.
- Class 2, 3, 4, 8, 11, 12 and 13 Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act, 1996.

Greyhound Recycling & Recovery at Crag Avenue accepts non-hazardous commercial and industrial waste and household waste.

Construction and Demolition were not accepted at the facility and minor amount of source segregated recyclables in 2012.

3. WASTE ACCEPTED 2012

Greyhound Recycling and Recovery Limited accepted the following waste streams during the reporting period:

- Commercial and Industrial waste comprising of source segregated metals and wood, mixed municipal waste and mixed packaging waste
- Mixed Dry Municipal household waste
- Mixed Residual household waste

4. WASTE QUANTITIES 2012

The Greyhound Recycling and Recovery at Crag Avenue is licensed to handle a maximum of 250,000 tonnes of waste per annum. The total quantity of material accepted at the licensed facility during the reporting period was 150,845 tonne. The percentage of recycling and

recovery achieved on wastes handled at the facility during the reporting period was 70%. A tabulated breakdown of the quantity and composition of wastes received, recovered, and disposed of, during the reporting period shows table 4.1.

The storage tonnage at the end of 2012 was higher of 870 tonnes than at the end of 2012.

4.1 Waste acceptance and dispatch

EWCode	Description of Waste	Waste in (tonnes)	Waste out (tonnes)	Recovery Disposal	%
02 01 06	horse manure	270	290	Recovery	0,2%
02 07 04	Oat and wheat grains	120			0,0%
13 05 03	on site activity interceptor sludge		108	Disposal	0,1%
15 01 01	cardboard packaging	35,5	105,5	Recovery	0,1%
15 01 02	plastic packaging	39			0,0%
15 01 03	wooden pallets	1132	992	Recovery	0,7%
15 01 04	metal drums and cages	51			0,0%
15 01 05	Labels	31			0,0%
15 01 06	mixed packaging	2887	2936	Recovery	2,0%
16 01 03	tyres	3,4	1,4	Recovery	0,0%
16 06 01	lead batteries	183,5	182	Recovery	0,1%
17 02 01	wood	400	395	Recovery	0,3%
17 04 01	Copper pipes, copper cylinders & other copper scrap	1033,4	1067	Recovery	0,7%
17 04 02	Aluminium frames, fascia, soffits and other aluminium scrap	1425,4	1489	Recovery	1,0%
17 04 03	Lead mainly from C&D	205,3	234	Recovery	0,2%
17 04 05	Iron & steel scrap from C&D	2715	2668	Recovery	1,8%
17 04 07	mixed non-hazardous, non-ferrous metals	838,4	842	Recovery	0,6%
17 08 02	plasterboard	131	61,6	Recovery	0,0%
19 12 02	metals separated from MMW		1215	Recovery	0,8%
19 12 10	Solid Recovered Fuel (SRF) and Refuse Derived Fuel (RDF)	6954	54988	Recovery	36,5%
19 12 12	organic screenings		918	Disposal	0,6%
19 12 12	organic screenings		14494	Recovery	9,6%
19 12 12	residuals from MDR processing	552			0,0%
19 12 12	heavy residuals from SRF processing		1324	Recovery	0,9%
19 12 12	heavy residuals from SRF processing		3723	Disposal	2,5%
20 01 01	mixed paper and newspapers	225	48	Recovery	0,0%
20 01 08	canteen waste,	491			0,0%
20 01 11	shredded clothing	13			0,0%
20 01 35*	mixed WEEE such as: white goods, TVs, monitors, PCs, other	31,6	16,5	Recovery	0,0%
20 01 38	wood	100	100	Recovery	0,1%
20 01 39	hard plastics: toys, pipes, crates, plates	121	79,8	Recovery	0,1%
20 01 40	source segregated metals	391	445	Recovery	0,3%
20 03 01	mixed dry recyclables from household collection	10691	11335	Recovery	7,5%
20 03 01	MMW from commercial and household sources	119775	11460,2	Recovery	7,6%
20 03 01	MMW from commercial and household sources		38993	Disposal	25,9%
	Total	150845,5	150511		
					100,00%

5. ENVIRONMENTAL MONITORING AND EMISSIONS DATA

Monitoring of emissions from the facility during the reporting period was carried out in accordance with Condition 8 and Schedule B and C of Greyhound Recycling and Recovery Ltd. waste licence W0205-01.

Dust deposition monitoring

Dust monitoring was carried out in two locations at two occasions in June 2012 and July 2012. The dust deposition did exceed the licensed limits in monitoring point D2. The root cause was identified as bird droppings and this was as advised in dust monitoring report. The results of the dust monitoring are shown in the below table.

Table 5.1

Monitoring Period		D1	D2
		ELV 350 mg/m ² /d	ELV 350 mg/m ² /d
From	To	mg/m ² /d	mg/m ² /d
17 th May	25 th June 2012	245	382
25 th June	25 th July 2012	129	507

Foul Sewer discharge monitoring

In accordance with Waste Licence W0205-01 the wastewater monitoring should be carried out monthly. Greyhound analysed trade effluent ten times in 2012. All samples were taken from the Sewer Emission Monitoring point SE1. Greyhound exceeded limit values in five samples during the year. The results of the analysis are shown in the table 5.2. In October 2012 Greyhound Recycling and Recovery engaged in a program to clean down sewer drains and this contributed to a reduction in the BOD and COD levels in the discharge sewer water. This has resulted in a reduction in the risk of non-conformances and this improvement has progressed into 2013.

Surface Water discharge monitoring

In accordance with Waste Licence W0205-01 the surface water monitoring should be carried out quarterly. Greyhound analysed storm water 6 times in 2012. In addition the conductivity was examined on a daily basis by the nominated employee and any deterioration in water quality was reported for follow up action. All samples were taken from the Storm Water Monitoring point SW1. The results of the analysis are shown in Table 5.3. In October 2012 Greyhound Recycling and Recovery conducted a deep clean down of all interceptors on the site and adopted a hand's on approach to teaching staff to ensure the interceptors remained clean. As a result the quality of the surface at the discharge point has improved and this can be seen from the reduction in COD levels in October, November and December 2012. This program has continued into 2013.

Table 5.2

Date sampled	BOD	COD	Suspended Solids	Oil fats & greases	pH	Sulphates	Mineral oil	Phosphates	Detergent
ELV(mg/l)=>	2000	8000	2000	200	6-10	500	10	100	100
24 January 2012	38	104	60	-	8,9	60	-	-	-
23 February 2012	1363	10120	470	84	5,3	537	0,1	17,5	1,1
26 March 2012	2546	4360	140	29	6,1	189	0,8	2.2	0,1
23 April 2012	812	1263	410	38,2	6,2	212	23,5	2	0,2
29 May 2012	714	420	178	27,5	6	99	8,8	6	0.5
28 June 2012	166	415	48	4	6,5	73	0	0,2	0,5
31 August 2012	4560	6860	608	133	6,3	359	0,004	15,6	0,1
30 October 2012	68	143	64	1	7	37,5	0	0,2	0,1
29 November 2012	1340	1990	737	166,5	6,3	119	14,5	9	0,14
20 December 2012	234	519	116	9,2	7,5	56	0	6,6	1,05

Table 5.3

Date sampled	pH	COD	Suspended Solids	Oils, Fats and Greases
03 January 2012	7,2	73	55	<1
23 April 2012	6,1	49	24	<1
31 August 2012	7,1	306	47	<1
30 October 2012	8	38	16	7,5
29 November 2012	7,8	43	47	<1
20 December 2012	7,57	36	9	<1

Noise Monitoring

In accordance with Waste Licence W0205-01 the noise monitoring should be carried out annually, during night and day activity. In 2012 noise monitoring was carried out on 25 June 2012 by Enviroglan in 5 monitoring points. Noise characteristics of the area are typical of an industrial estate zoned for light industrial activity. Additional noise sources emanated mainly from motor way M50 which is 100m away from Greyhound's boundary and also from nearby passing trains, and overhead aircraft and banging sounds associated with industrial activity. Existing road traffic was the dominant noise source for the majority of the time. The dominant noise sources are mainly traffic from the busy road network that surrounds

both the industrial estate and the noise sensitive locations. In addition the site backs onto the local railway network that has significant traffic throughout the day. As a result Greyhound Recycling cannot be considered to add, significantly, to the noise environment at any of the boundary or noise sensitive locations. The results of the noise monitoring are shown in the below table.

Table 5.4

Monitoring location	Day /Night period	L _{Aeq} dB(A)	L _{A90} dB(A)	L _{A10} dB(A)
Noise Emission Limits Daytime dB(A) L _{Aeq} (30 minutes) 55 dB(A) Night-time dB(A) L _{Aeq} (30 minutes) 45 dB(A)				
N1	Day	62.3	46.2	65.2
	Night	67.6	47.6	69.6
N2	Day	57.9	43.4	57.6
	Night	56.9	43.2	61.6
N3	Day	58.3	46.2	60.4
	Night	43.6	40.2	45.6
N4	Day	58.3	47.6	62.0
	Night	50.3	38.2	51.2
N5	Day	72.5	54.0	77.2
	Night	49.0	37.6	52.6

6. RESOURCE AND ENERGY CONSUMPTION

Data on resource, energy and primary raw material consumption for the reporting period is presented in Table 6.1 (below).

Table 6.1: Resource and Energy Usage in 2012.

Raw Material/Resource	Application	Consumption
Detergent	Vehicle and plant washing	800 litres
Deodorising liquid	Misting system	4665 litres
Electricity	Office and fixed plant.	3693MWh
Mains water	Washing, Site cleaning, NAPS washing, misting system.	9425 cubic meters

Hydraulic Oil	Process plant and fleet vehicles.	7540 litres
Engine Oil	Process plant and fleet vehicles.	990 litres
Marked Diesel	Mobile plant machinery	188,500 litres

7. FACILITY DEVELOPMENT WORKS.

The developments undertaken in the reporting period is presented in Table 7.1(below).

Table 7.1 Development Works undertaken during the reporting period.

Project Objective	Works undertaken
Decrease of nuisance emission	<ul style="list-style-type: none"> In-situ carbon regeneration of NAPS
Review of proposed Upgrade to odour Abatement Equipment	<ul style="list-style-type: none"> GRR recognised the need to ensure that the proposed upgrade to the odour abatement system must meet the objectives of all stakeholders and eliminate the potential for Odour Nuisance arising from the facility. GRR engaged an external Odour Expert to conduct a root and branch independent assessment of the proposed odour abatement system. As a result of this independent assessment GRR were not satisfied that the appropriate guarantees could be achieved. The Company engaged an external Odour Expert to map out in a step by step process the necessary actions to reduce the risk that an upgrade of the existing odour abatement system would not be fit for purpose or meet the expectations of all stakeholders. This Independent Odour consultant recommended that Greyhound Recycling and recovery carry out improvements to the building fabric to seal the building and to then conduct research to ascertain the most suitable odour abatement equipment required. Research and trials for phase 1 were initiated in 2012.

8. ENVIRONMENTAL SYSTEMS & PROCEDURES

Greyhound Recycling and Recovery Ltd. facility at Crag Avenue have an Environmental Management system to ISO9001 and ISO14001 management system standard. All reviews, amendments, and implementations of quality and environmental procedures are undertaken within the framework of the management systems.

9. ENVIRONMENTAL OBJECTIVES AND TARGETS FOR 2013

No.	Aspect(s)	Objective	Target	Due
1	Waste Management	Ensure the most efficient and environmentally sustainable management of client waste streams.	The company began producing Refuse Derived fuel in 2012. This offered more energy recovery outlets and thus leads to a more sustainable product where stocks can be processed on a JIT (Just In Time) system. The Company plan to increase the number of Energy Recovery outlets that are authorised to accept Refuse Derived Fuel from the GRR facility. This will ensure that production or processing issues external to the GRR facility will not affect operations at the facility.	Dec 2013
2	Air	Reduce odour emissions from waste handling and processing activities	Engage an Independent External Odour consultant to conduct research and design the system required to reduce Odour emissions from the site.	Dec 2013
			Approve draft design of Phase 1 Upgrade and research potential suppliers in conjunction with Independent External Odour consultant.	Jan 2013
			Meet with EPA and seek agreement for Phase 1 works from the draft design	Jan 2013
			Submit Engineering change note to the EPA following conclusion of research to agree specifications for proposed phase 1 upgrade.	April 2013
			Conduct trial clean downs of the Carbon beds	Jan 2013
			Re-balance the extraction fans operating the Carbon beds	April 2013
			Conduct clean down trials of Push walls in building 2 and trials of various seals on building fabric.	Feb 2013
			Conduct a review of industrial covers for push walls in building 2, source replacements / repair of same	May 2013

			Complete clean down of push walls and preparation of building Fabric for sealing.	May 2013
			Source contractors to seal the building fabric and complete sealing of the building.	June 2013
			Source and place orders for Air Curtains for Doors 7 and Door 8	May 2013
			Source and place orders for Air In-take Louvers for Building 2.	May 2013
			Replace doors 7, 8, with new automated doors	June 2013
			Regenerate the activated carbon in the existing Negative Air Pressure System (NAPS) by increasing washing of units using existing spray system.	July 2013
3	Water / Oil	Prevent surface water contamination, decrease emission values to storm water and sewer	Adopt a hands on Yard management program to ensure the yard is kept clean at all times at the facility.	Ongoing
			Ensure Interceptors are functional and operational at all times and trace any non-conformances back to root cause and initiate prevention measures.	Ongoing
			Monitor external laboratory testing of Waste Water Discharge and ensure the facility complies with its Waste Water Discharge Licence.	Ongoing
			Monitor external laboratory testing of Surface Water Discharge and ensure the facility complies with its Waste Water Discharge Licence.	Ongoing
4	Traffic	Achieve organized, efficient and safe movement of cars, trucks and machinery on site minimising noise and emissions	Install traffic lights on new entrance doors to building 2 (Doors 7 & Doors 8) to manage traffic and reduce the risk of impacts damaging the main entrance / exit doors.	June 2012

			Identify areas for further concrete improvement works and conduct repairs to yard as required	Ongoing
6	Resource use and Energy Efficiency	Identify opportunities for energy use reduction and efficiency. Identify opportunities for reduction in the quantity of water used on site	Review the Electricity usage for the site and identify where the Company can reduce energy requirements.	Dec 2013
7	Integrated Management System	Achieve better communication between departments. Increase control of compliances with the Waste License	Carry out audits and training and review & update the Environmental Management System as required.	Dec 2013
			Review operation of the Odour abatement system in conjunction with an Independent Odour Consultant and develop a step by step process to reduce Odour complaints	On-going
			Update Legislation Register and Environmental Aspects and impacts.	December 2013

10. INCIDENTS

There were eight non odour related environmental incident on site in 2012. The incidents were related to doors breakdown or wall damage at the facility.

11. COMPLAINTS

Facility has received 65 complaints during the reporting period. 30 of them were made directly to Greyhound Recycling and Recovery and 35 via EPA. 57 complaints received during the reporting period were related to odour and 2 to flies activity. All complaints were recorded and followed with the appropriate measurements. The company has invested significantly in an odour management project for 2013 which has reduced complaints received and this project forms part of the environmental objectives and targets for 2013.

12. ODOUR MANAGEMENT PROGRAMME

The odour management programme for licensed facility was submitted to the Agency in March 2012 the following works were done to improve the Negative Air Pressure System (NAPS) operation:

- In August 2012 the NAPS Procedure was revised and amended in accordance with laboratory analysis and tests results on GRR carbon chemical regeneration.
- In August-September 2012, GRR carried out full washing and regeneration of the carbon. For this purpose was used around 100-150 cu meters of water, 5500 kg of caustic soda and 3500 litters of Methanol were utilised.
- IPEC prepared general programme for upgrading of existing system as well as additional parallel unit for better air treatment including stack discharge
- Greyhound Recycling and Recovery engaged an Independent Odour Monitoring consultancy to review the proposed upgrade to the Odour abatement system and make recommendations in regard to the ability of the proposed upgrade to reduce the odour complaints received to the facility to zero. Greyhound Recycling and Recovery reviewed the outcome of the process and were not satisfied that the upgrade would meet the expectations of all stakeholders to ensure a reduction in the odour complaints received to the facility.
- Greyhound Recycling and Recovery subsequently engaged an Independent Odour Monitoring consultancy to conduct research and provide a step by step process to improve the operation of the odour abatement system at the facility and prepare suitable documentation for submission to the Environmental Protection Agency for an upgrade of the odour abatement system and these works are scheduled for 2013.

13. REVIEW OF NUISANCE CONTROLS.

Pest contractor, Pest Guard carried out 9 visits to control vermin, during which they rebated rat poison in the boxes, replaced broken boxes or installed additional where required.

Additionally Pest control contractor Rentokil visited Greyhound facility 28 times to spray the sheds for flies.

14. VOLUME OF TRADE EFFLUENT/LEACHATE AND OR CONTAMINATED STORM WATER PRODUCED AND VOLUME TRANSPORTED OFF-SITE

The following amount of effluent was sent off site during the 2012 reporting period:

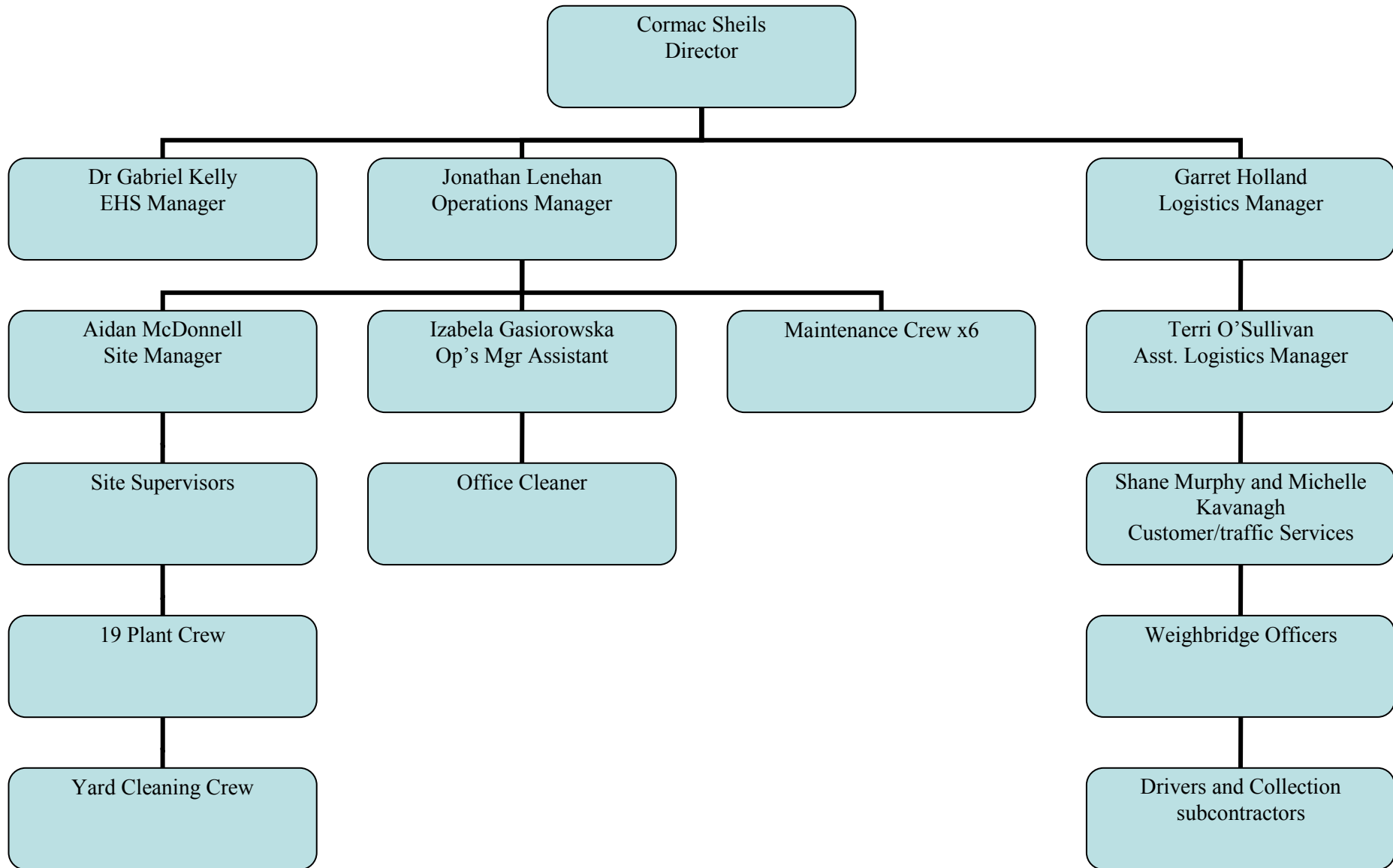
- 71 tonnes of interceptor sludge to Rilta Environmental
- 37 tonnes of interceptor sludge to Enva Ireland Ltd.

15. FINANCIAL PROVISION

Greyhound Recycling and Recovery Ltd. public and product liability indemnity limit is up to €6,500,000. In terms of environmental pollution the indemnity applies to damage to any buildings or other structures or of water or land or atmosphere caused by pollution or contamination. The policy covers pollution caused by a sudden, identifiable, unintended and unexpected event and not gradual pollution. This cover will be in excess of any environmental liability that may arise due to such incident.

All trans-frontier shipment of non-green list material undertaken by Greyhound Recycling and Recovery is effected under a financial guarantee calculated on the cost for return and disposal of material where warranted.

16. MANAGEMENT AND STAFFING STRUCTURE



17. PROGRAMME FOR PUBLIC INFORMATION

Greyhound Recycling and Recovery Limited maintains a *Public Information File* at the licensed facility. This file contains specified information relating the environmental performance of the Company. The file is available for inspection by the public on request at the facility. No public requests for information were received during the reporting period.

18. RESIDUALS MANAGEMENT PLAN

The recent Residual Management Plan was submitted to the Agency in October 2010

19. ENVIRONMENTAL LIABILITY RISK ASSESSMENT

The Environmental Liability Risk Assessment was submitted with AER for 2009. There were no major changes in the environmental liabilities in 2012.



AER Returns Workbook

Version 1.1.15

REFERENCE YEAR	2012
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1. FACILITY IDENTIFICATION

Parent Company Name	Greyhound Recycling and Recovery
Facility Name	Greyhound Recycling & Recovery
PRTR Identification Number	W0205
Licence Number	W0205-01

Waste or IPPC Classes of Activity

No.	class_name
4.4	Recycling or reclamation of other inorganic materials.
3.11	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
4.11	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.
4.12	Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.

4.13	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.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.8	Oil re-refining or other re-uses of oil.
Address 1	Crag Avenue
Address 2	Clondalkin Industrial Estate
Address 3	Clondalkin
Address 4	Dublin 22
	Dublin
Country	Ireland
Coordinates of Location	-6.38899 53.3323
River Basin District	IEEA
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Richard Darcy
AER Returns Contact Email Address	richard.darcy@greyhoundrecycling.com
AER Returns Contact Position	EHS Manager
AER Returns Contact Telephone Number	01 4612850
AER Returns Contact Mobile Phone Number	0879974343
AER Returns Contact Fax Number	01 4196882
Production Volume	0.0
Production Volume Units	
Number of Installations	1
Number of Operating Hours in Year	0
Number of Employees	171
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

Is it applicable?	
Have you been granted an exemption?	
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

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities)?	
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This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR								
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					0.0	0.0	0.0	0.0

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO AIR								
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					0.0	0.0	0.0	0.0

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

RELEASES TO AIR								
POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					0.0	0.0	0.0	0.0

4.2 RELEASES TO WATERS

SECTION A: SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO WATERS								
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					0.0	0.0	0.0	0.0

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO WATERS								
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1		A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					0.0	0.0	0.0	0.0

SECTION C : REMAINING POLLUTANT EMISSIONS

RELEASES TO WATERS								
POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
306	COD	E	ESTIMATE	total water discharged to surface water in 2012 = 23831cu.m.(estimated)	2165.0	2165.0	0.0	0.0
240	Suspended Solids	E	ESTIMATE		786.0	786.0	0.0	0.0
314	Fats, Oils and Greases	E	ESTIMATE		48.0	48.0	0.0	0.0

4.3 RELEASES TO WASTEWATER OR SEWER

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER								
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Used Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

SECTION B : REMAINING POLLUTANT EMISSIONS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER								
POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Used Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
303	BOD	E	ESTIMATE	Total water discharged into sewer in 2012 = 17370 cu.m.	20568.0	20568.0	0.0	0.0
306	COD	E	ESTIMATE		45499.0	45499.0	0.0	0.0
240	Suspended Solids	E	ESTIMATE		4917.0	4917.0	0.0	0.0
314	Fats, Oils and Greases	E	ESTIMATE		950.0	950.0	0.0	0.0
343	Sulphate	E	ESTIMATE		3025.0	3025.0	0.0	0.0
324	Mineral oils	E	ESTIMATE		92.0	92.0	0.0	0.0
332	Ortho-phosphate (as PO4)	E	ESTIMATE		124.0	124.0	0.0	0.0
308	Detergents (as MBAS)	E	ESTIMATE		7.0	7.0	0.0	0.0

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

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 <u>Non Haz Waste:</u> Name and Licence/Permit No of Recover/ Disposer	Haz Waste : Address of Next Destination Facility <u>Non Haz Waste:</u> Address of Recover/ Disposer	Name and License / Permit No. and Address of Final Recovered / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	13 05 03	Yes	37.0	interceptor sludges	D1	M	Weighed	Offsite in Ireland	ENVA Ireland Ltd ,WO184-01	Clonminam Industrial Estate, Portlaoise Co Laois, Ireland	ENVA Ireland Ltd ,WO184-01,Clonminam Industrial Estate Portlaoise, Co Laois	Clonminam Industrial Estate Portlaoise Co Laois, Ireland
Within the Country	13 05 03	Yes	71.0	interceptor sludges	D1	M	Weighed	Offsite in Ireland	RILTA Environmental, W0192-01.	Unit 402 Grant's Drive Greenogue Business Park, Rathcoole Co. Dublin, Ireland	RILTA Environmental, W0192-01, Unit 402 Grant's Drive Greenogue Business Park, Rathcoole Co. Dublin	Unit 402 Grant's Drive Greenogue Business Park. ,,Rathcoole Co. Dublin ,,Ireland
To Other Countries	15 01 01	No	99.0	paper and cardboard packaging	R3	M	Weighed	Abroad	Paperman Products	Rathdown Cl Lissue Ind Est, Lisburn ,BT28 2RB, United Kingdom		
Within the Country	15 01 03	No	743.0	wooden packaging	R3	E	Weighed	Offsite in Ireland	Clonmel Waste Disposal ,WM WP 08 02	23 Mitchell St, Clonmel Co. Tipperary		
Within the Country	15 01 03	No	249.0	wooden packaging	R3	E	Weighed	Offsite in Ireland	Wilton Waste Recycling Limited,WFP-CN-09-0005-01	Kiffa Crosserlough, County Cavan		
Within the Country	20 01 38	No	100.0	wood other than that mentioned in 20 01 37	R3	E	Weighed	Offsite in Ireland	Clonmel Waste Disposal , WM WP 08 02	23 Mitchell St, Clonmel Co. Tipperary		
Within the Country	15 01 06	No	1260.0	mixed packaging	R3	C	Weighed	Offsite in Ireland	Killarney Waste Disposal , W0217-01	Aughacureen, Killarney Co. Kerry		
Within the Country	15 01 06	No	560.0	mixed packaging	R3	C	Weighed	Offsite in Ireland	Clean (Irl) Refuse and Recycling Co. Ltd. , 002/07/WPT/CL	Smithstown Ind. Est. Shannon Co. Clare, Ireland		

Within the Country	15 01 06	No	621.0	mixed packaging	R3	C	Weighed	Offsite in Ireland	Dillon Waste ,W0184-01	The Kerries, Tralee Co. Kerry, Ireland		
Within the Country	15 01 06	No	406.0	mixed packaging	R3	M	Weighed	Offsite in Ireland	Greenstar Limited,W0053-01	Bray Depot, La Vallee House, Fassarooe Bray, Co. Wicklow.		
Within the Country	20 01 36	No	10.1	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R5	M	Weighed	Offsite in Ireland	Rehab Recycle ,WFP-DS.-10-0008-01	77 Broomhill Road Tallaght, Dublin 22. ,,Ireland	Rehab Recycle, WFP-DS.-10-0008-01, 77 Broomhill Road, Tallaght, Dublin 22.	77 Broomhill Road, Tallaght, Dublin 22. ,Ireland
Within the Country	20 01 36	No	6.4	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R5	M	Weighed	Offsite in Ireland	Electrical Waste Management Limited,WFP-DS-11-0014-03	Block 648 , Jordanstown Drive, Greenogue Ind Estate Rathcoole ,Ireland	Electrical Waste Management Limited,WFP-DS-11-0014-03,Block 648, Jordanstown Drive, Greenogue Ind Estate Rathcoole Co Dublin	Block 648, Jordanstown Drive, Greenogue Ind Estate Rathcoole Co Dublin, Ireland
Within the Country	16 06 01	Yes	182.0	lead batteries	R13	E	Weighed	Offsite in Ireland	Hammond Lane Metal Co. ,WFP-DC-09-0013-01	Pigeon Hse rd Ringsend ,,Dublin 4 ,,Ireland	Hammond Lane Metal Co., WFP-DC-09-0013-01, Pigeon Hse rd Ringsend, Dublin 4.	Pigeon Hse rd Ringsend, Dublin 4, Ireland
Within the Country	17 04 01	No	1067.0	copper, bronze, brass	R4	E	Weighed	Offsite in Ireland	Hammond Lane Metal Co. ,WFP-DC-09-0013-01	Pigeon Hse rd Ringsend Dublin 4, Ireland		
Within the Country	17 04 02	No	1489.0	aluminium	R4	E	Weighed	Offsite in Ireland	Hammond Lane Metal Co. ,WFP-DC-09-0013-01	Pigeon Hse rd Ringsend, Dublin 4, Ireland		
Within the Country	17 04 05	No	2668.0	iron and steel	R4	E	Weighed	Offsite in Ireland	Hammond Lane Metal Co. ,WFP-DC-09-0013-01	Pigeon Hse rd Ringsend, Dublin 4, Ireland		
Within the Country	17 04 07	No	842.0	mixed metals	R4	E	Weighed	Offsite in Ireland	Hammond Lane Metal Co. ,WFP-DC-09-0013-01	Pigeon Hse rd Ringsend, Dublin 4, Ireland		
Within the Country	19 12 02	No	283.0	ferrous metal	R4	M	Weighed	Offsite in Ireland	John Cullen t/a Multi Metal Recycling Ltd. WFP-WW-09-0014-01	Bollarney The Murrough, Wicklow, Ireland		
Within the Country	19 12 02	No	932.0	ferrous metal	R4	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal ,WM WP 08	23 Mitchell St. Clonmel Co.		

									02	Tipperary.		
Within the Country	19 12 10	No	1056.0	combustible waste (rdf)	R1	M	Weighed	Offsite in Ireland	Lagan Cement ,P0487-05	Killaskillen Kinnegad Mullingar Co. Westmeath.		
To Other Countries	19 12 10	No	5965.0	combustible waste (refuse derived fuel)	R1	M	Weighed	Abroad	SWB Entsorgung GmbH &Co. KG ,Reg No: D33301010	Mittlekalkorik-Kraftwerk Bremen Otawistrabe 7-9, Bremen ,D28237 ,Germany		
To Other Countries	19 12 10	No	9408.0	combustible waste (RDF)	R1	M	Weighed	Abroad	Attero, Reg. No: 20083308	Middenweg 34, 4782PM Moerdijk, Netherlands		
Within the Country	19 12 10	No	28586.0	combustible waste (refuse derived fuel): please note that approx.	R13	C	Weighed	Offsite in Ireland	Stack R Warehouse, WFP-DC-10-0019-01	Alexandra Road Dublin1, Ireland		
Within the Country	19 12 10	No	14651.0	combustible waste (RDF)	R1	M	Weighed	Offsite in Ireland	Irish Cement Limited ,P0030-04	Platin Works Platin, County Meath, Louth.		
Within the Country	19 12 12	No	244.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D1	M	Weighed	Offsite in Ireland	Rampere Landfill , W0066-02	Co. Wicklow, Ireland		
Within the Country	19 12 12	No	480.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D1	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd. ,W0165-02	Ballynagran Residual Landfill ,, Co. Wicklow ,,Ireland		
Within the Country	19 12 12	No	190.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D1	M	Weighed	Offsite in Ireland	AES t/a Midland Waste ,W0131-02	Clonmagaddan ,, Proudstown ,Navan Co. Meath Ireland		
Within the Country	19 12 12	No	2199.0	other wastes (including mixtures of materials) from mechanical	R3	M	Weighed	Offsite in Ireland	Cleary Compost & Shredding Ltd. ,COR-KE-08-0010-01	Larch Hill House ,,Monasterevin Co. Kildare ,,Ireland		

				treatment of wastes other than those mentioned in 19 12 11								
Within the Country	19 12 12	No	8007.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R1	M	Weighed	Offsite in Ireland	Indaver Ireland ,W0167-02	Carranstown ,, Duleek Co. Meath ,,Ireland		
Within the Country	19 12 12	No	4098.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R3	M	Weighed	Offsite in Ireland	Enrich Composting Facility ,WFP/MH/08/0001/01	,,,Kilcock Co. Meath ,,Ireland		
Within the Country	19 12 12	No	193.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R3	M	Weighed	Offsite in Ireland	BORD na Mona Drehid Landfill ,W0201-02	,,,Kildare ,,Ireland		
Within the Country	02 01 06	No	250.0	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site	R3	M	Weighed	Offsite in Ireland	Enrich Composting Facility ,WFP/MH/08/0001/01	,,,Kilcock Co. Meath ,,Ireland		
Within the Country	02 01 06	No	40.0	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site	R3	M	Weighed	Offsite in Ireland	Padraig Thornton Waste Disposal Limited ,W0195-01	Kilmainhamwood Compost Ballynalurgan ,, Kilmainhamwood Kells,,Ireland		
Within the Country	19 12 12	No	175.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than	D1	C	Weighed	Offsite in Ireland	Laois County Council Kyletalesha Landfill ,W0028-02	, Kyletalesha Landfill Laois. ,,Ireland		

				those mentioned in 19 12 11								
Within the Country	19 12 12	No	3299.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D1	C	Weighed	Offsite in Ireland	BORD na Mona Drehid Landfill ,W0201-02	,,,Kildare ,,Ireland		
Within the Country	19 12 12	No	249.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D1	C	Weighed	Offsite in Ireland	Greenstar Holdings Ltd. ,W0165-02	Ballynagran Residual Landfill, Co. Wicklow, Ireland		
Within the Country	19 12 12	No	245.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D1	M	Weighed	Offsite in Ireland	Rampere Landfill ,W0066-02	Co. Wicklow, Ireland		
Within the Country	19 12 12	No	1324.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 12	R1	M	Weighed	Offsite in Ireland	Indaver Ireland ,W0167-02	Carranstown ,, Duleek Co. Meath ,,Ireland		
Within the Country	16 01 03	No	1.4	end-of-life tyres	R5	M	Weighed	Offsite in Ireland	John Cullen t/a Multi Metal Recycling Ltd. ,WFP-WW-09-0014-01	Bollarney The Murrrough,, Wicklow Co. Wicklow ,,Ireland	Rehab Recycle, WFP-DS.-10-0008-01, 77 Broomhill Road, Tallaght, Dublin 22.	77 Broomhill Road, Tallaght, Dublin 22. Ireland
Within the Country	20 01 39	No	70.5	plastics	R3	M	Weighed	Offsite in Ireland	Irish Packaging Recycling Ltd. T/A Panda Waste,W0263-01	Ballymount Road, Walkinstown Dublin 12.		

To Other Countries	20 01 39	No	9.3	plastics	R3	M	Weighed	Abroad	Envirogreen Recycling Ltd,	227 Battleford Road Co. Armagh, BT717NN, United Kingdom		
Within the Country	20 01 40	No	445.0	metals	R4	M	Weighed	Offsite in Ireland	John Cullen t/a Multi Metal Recycling Ltd. WFP-WW-09-0014-01	Bollarny The Murrough, Co. Wicklow ,,Ireland		
Within the Country	20 03 01	No	32.0	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	AES t/a Midland Waste ,W0131-02	Clonmagaddan, Proudstown, Navan Co. Meath		
Within the Country	20 03 01	No	22370.0	mixed municipal waste	D1	C	Weighed	Offsite in Ireland	BORD na Mona Drehid Landfill ,W0201-02	,,,Kildare ,,Ireland		
Within the Country	20 03 01	No	10824.0	mixed municipal waste	D1	C	Weighed	Offsite in Ireland	Greenstar Holdings Ltd. ,W0165-02	Ballynagran Residual Landfill, Co. Wicklow		
Within the Country	20 03 01	No	1294.0	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Rampere Landfill ,W0066-02	Co. Wicklow, Ireland		
Within the Country	20 03 01	No	11218.0	mixed municipal waste	R1	C	Weighed	Offsite in Ireland	Indaver Ireland ,W0167-02	Carranstown ,, Duleek Co. Meath ,,Ireland		
Within the Country	20 03 01	No	552.0	mixed municipal waste	D1	C	Weighed	Offsite in Ireland	Laois County Council Kyletalesha Landfill, W0028-02	, Kyletalesha Landfill Laois. ,,Ireland		
Within the Country	20 03 01	No	3704.0	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd ,W0146-02	Knockharley Kentstown Navan Co. Meath, Ireland		
Within the Country	20 03 01	No	250.0	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Whiteriver Landfill,W0060-03	Whiteriver & Gunstown Townland Dunleer Co Louth,,Ireland		
Within the Country	17 02 01	No	305.0	wood	R3	E	Weighed	Offsite in Ireland	Clonmel Waste Disposal ,WM WP 08 02	23 Mitchell St, Clonmel Co. Tipperary		
Within the Country	17 02 01	No	90.0	wood	R3	E	Weighed	Offsite in Ireland	Wilton Waste Recycling Limited,WFP-CN-09-0005-01	Kiffa Crosserlough County Cavan		
Within the Country	15 01 06	No	89.0	mixed packaging	R3	C	Weighed	Offsite in Ireland	WERS ,	Tuam Business Park, Tuam Co Galway, Ireland		
Within the Country	20 03 01	No	2106.0	mixed municipal waste	R3	C	Weighed	Offsite in Ireland	Clean (Irl) Refuse and RecyclingCo. Ltd. , 002/07/WPT/CL	Smithstown Ind. Est, Shannon Co. Clare, Ireland		
Within the Country	20 03 01	No	2337.0	mixed municipal waste	R3	C	Weighed	Offsite in Ireland	Dillon Waste ,W0184-01	The Kerries, Tralee Co. Kerry		
Within the Country	20 03 01	No	4741.0	mixed municipal waste	R3	C	Weighed	Offsite in Ireland	Killarney Waste Disposal ,W0217-01	Aughacureen ,, Killarney Co. Kerry		

										...Ireland		
Within the Country	20 03 01	No	1526.0	mixed municipal waste	R3	C	Weighed	Offsite in Ireland	Greenstar Limited,W0053-03	Bray Depot, La Vallee House Fassaroe Bray Co. Wicklow.		
Within the Country	20 03 01	No	333.0	mixed municipal waste	R3	C	Weighed	Offsite in Ireland	WERS ,	Tuam Business Park , Tuam Co Galway		
Within the Country	20 03 01	No	292.0	mixed municipal waste	R3	M	Weighed	Offsite in Ireland	Ballymount MRF ,W0238-01	Merrywell Industrial Estate, Ballymount Road Lower, Ballymount Dublin 12.		
Within the Country	17 04 03	No	234.0	lead	R4	E	Weighed	Offsite in Ireland	Hammond Lane Metal Co. ,WFP-DC-09-0013-01	Pigeon Hse rd Ringsend, Dublin 4		
Within the Country	20 01 01	No	48.0	paper and cardboard	R3	M	Weighed	Offsite in Ireland	Irish Packaging Recycling Ltd. T/A Panda Waste,W0263-01	Ballymount Road ,...Walkinstown Dublin 12		
Within the Country	15 01 01	No	6.5	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Irish Packaging Recycling Ltd. T/A Panda Waste,W0263-01	Ballymount Road, Walkinstown Dublin 12		
Within the Country	17 08 02	No	62.0	gypsum-based construction materials other than those mentioned in 17 08 01	R5	M	Weighed	Offsite in Ireland	Envirogrind Ltd,WFP-DL-11-0004-01	2 Lough Derg Road ,...Pettigo Co. Donegal,, Ireland		
Within the Country	20 03 01	No	33.2	mixed municipal waste	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal ,WM WP 08 02	23 Mitchell St, Clonmel Co. Tipperary		
Within the Country	20 03 01	No	177.0	mixed municipal waste	R3	M	Weighed	Offsite in Ireland	Padriag Thornton Waste Disposal, W0044-03	Kileen Rd, Ballyfermot, Dublin10,		
Within the Country	19 12 10	No	2482.0	combustible waste (RDF)	R13	M	Weighed	Offsite in Ireland	Padraig Thornton Waste Disposal Ltd ,W0206	Dunboyne ,Co. Meath , Ireland		
Within the Country	19 12 10	No	2762.0	combustible waste (refuse derived fuel)	R13	C	Weighed	Offsite in Ireland	Wicklow Port Company Limited ,WFP - WW - 12-0007-03	North Quay, Wicklow Town, Ireland		