



ANNUAL ENVIRONMENTAL REPORT
GREENSTAR LTD.
INTEGRATED WASTE MANAGEMENT FACILITY
FASSAROE, BRAY,
COUNTY WICKLOW
LICENCE NO. W0053-03
JANUARY – DECEMBER 2010

Prepared For: -

Greenstar Ltd.,
Fassaroe,
Bray,
Co. Wicklow

Prepared By: -

O' Callaghan Moran & Associates,
Granary House,
Rutland Street,
Cork.

31st March 2011

Project Annual Environmental Report 2010				
Client Greenstar Ltd. W0053-03				
Report No	Date	Status	Prepared By	Reviewed By
0480805	29/03/2011	Draft	Martina Gleeson PhD	Michael Watson MA.
0480805	31/03/2011	Final	Martina Gleeson PhD	Michael Watson MA.

TABLE OF CONTENTS

	<u>PAGE</u>
1. INTRODUCTION.....	1
2. SITE DESCRIPTION	2
2.1 SITE LOCATION & LAYOUT	2
2.2 WASTE MANAGEMENT ACTIVITIES	2
2.2.1 Waste Type & Processes	2
2.2.2 Plant List	4
3. EMISSION MONITORING	6
3.1 GROUNDWATER	6
3.1.1 Groundwater Levels	6
3.1.2 Groundwater Quality	6
3.1.3 Estimated Annual and Cumulative Quantity of Emissions to Groundwater.....	7
3.2 SURFACE WATER	7
3.3 WASTEWATER	7
3.4 LEACHATE.....	8
3.4.1 Leachate Levels	8
3.4.2 Leachate Quality	8
3.5 LANDFILL GAS	8
3.5.1 Landfill Gas Volumes	10
3.5.2 Landfill Gas Control	10
3.6 NOISE SURVEY	10
3.7 DUST MONITORING	10
4. SITE DEVELOPMENT WORKS	11
4.1 SPECIFIED ENGINEERING WORKS	11
4.2 SITE RESTORATION	11
4.3 SITE DEVELOPMENT	11
4.4 SUMMARY OF RESOURCE & ENERGY CONSUMPTION	11
5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY	13
6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS	17
6.1 INCIDENTS	17
6.2 REGISTER OF COMPLAINTS	17
7. ENVIRONMENTAL DEVELOPMENT & CONTROL.....	18
7.1 ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT	18
7.1.1 Schedule of Objectives and Targets 2010	18
7.1.2 Site Management Structure	19
7.2 ENERGY EFFICIENCY AUDIT REPORT SUMMARY.....	19
7.3 REDUCTION OF WATER DEMAND	22
7.4 VOLUME OF WASTEWATER PRODUCED AND TRANSPORTED OFF SITE	22
7.5 POLLUTION EMISSION REGISTER	22
7.6 NUISANCE CONTROLS	22
7.7 TANK & PIPELINE TESTING	22

7.8	SLOPE STABILITY ASSESSMENT.....	22
7.9	PROGRAMME FOR PUBLIC INFORMATION	23
7.10	WASTE RECOVERY REPORT	23
7.11	REVISED CLOSURE, RESTORATION & AFTERCARE MANAGEMENT PLAN	23
7.12	MEASURES IN RELATION TO PREVENTION OF ENVIRONMENTAL DAMAGE AND REMEDIAL ACTIONS (ENVIRONMENTAL LIABILITIES).....	24
8.	OTHER REPORTS.....	25

APPENDIX 1 - Environmental Monitoring Summary Tables

APPENDIX 2 - Procedures Index

APPENDIX 3 - European Pollutant Release and Transfer Register

1. INTRODUCTION

This is the 2010 Annual Environmental Report (AER) for the Greenstar Ltd. (Greenstar), Integrated Waste Management Facility at Fassaroe, Bray, County Wicklow (W0053-03) and covers the reporting period January 2010 to December 2010. The AER has been prepared in compliance with Condition 11.11 of the Licence.

The content of the AER is based on Schedule G of the Licence and the report format follows guidelines set in the “*Guidance Note for Annual Environmental Report*” issued by the Environmental Protection Agency (Agency)¹.

¹ EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency

2. SITE DESCRIPTION

2.1 Site Location & Layout

The facility is located close to the N11 at Fassaroe, Bray, County Wicklow. The site comprises three main waste processing buildings, the original transfer building located close to the site entrance at the southern side of the site and adjoining Phase 1 & 2 buildings which are located in the centre of the site. There is also an administration building incorporating office, canteen and toilet facilities; a vehicle wash; 2 no. weighbridges and a weighbridge office; office type portocabins (formerly used as offices); truck and empty skip parking areas and vehicle maintenance shed which is adjacent the original transfer building.

2.2 Waste Management Activities

The depot is an integrated waste management facility. The licence allows for the following activities:

- bulking of municipal solid waste prior to transfer off-site for disposal;
- in-vessel composting of biodegradable waste;
- wood shredding;
- processing/storage of dry recyclables;
- recovery of construction and demolition waste;
- acceptance of waste at a civic waste facility, which includes hazardous waste such as bonded asbestos waste, WEEE and chlorofluorocarbons.

With the exception of composting, which has not yet started, all of the other activities are on-going. In December 2009, the agency technically amended the licence to allow for a change to the hours of operation so that Greenstar can carry out indoor processing of dry mixed recyclable material on a 24-hour day, 7-day week basis in the Phase 1 processing building.

2.2.1 Waste Type & Processes

The facility is licensed to accept a maximum of 200,000 tonnes of waste annually. This comprises the following waste types and volumes, as specified in Schedule A of the Licence: -

- Household and Commercial (143,560 tonnes),
- Construction & Demolition (54,040 tonnes),
- Hazardous (2,400 tonnes).

The following processes are carried out:

Mixed Municipal Solid Waste (MSW)

All mixed MSW containing a putrescible fraction is handled inside the original Transfer Building. The incoming waste is deposited on the floor of the building and is then either pushed into an open trailer or compacted, for removal and disposal at an approved off-site residual landfill facility.

Dry Mixed Recyclables (DMR)

DMR is deposited onto the floor of the Phase 1 Transfer Building. Mixed DMR is separated, using a sorting line, into paper, cardboard, aluminium, steel, plastic bottles and plastic film fractions, which are then baled separately and stored pending removal for recycling. Source segregated DMR is baled directly and stored pending consignment.

Non Putrescible Commercial and Industrial (C&I)

Non putrescible C&I waste delivered by waste contractors is off-loaded in the Phase 2 building. Non putrescible C&I from the site's civic waste facility (public and commercial enterprises) is transferred to the Phase 2 building.

The processing is carried out indoors. The materials are pre sorted to remove bulky items and the remaining waste is fed into the C&I/C&D processing line. A 3D trommel is used to remove oversize items and the material then passes through a star-screener unit to remove the fine fraction containing subsoil and topsoil. Over-band magnets are used to separate ferrous metals from the waste. Material is passed through a picking station to remove metals, concrete/stone, timber, hard plastics and residual material.

The concrete/stone is sent to the on-site crusher for further processing. Timber is sent to the on-site timber shredder. Metals are stored pending consignment from the site to an approved facility.

Construction and Demolition (C&D) Waste

The material is processed inside the Phase 2 building using the same processing line as for the C&I wastes described above. The fines are sent to landfill for use as cover material. The concrete/stone is sent to the on-site crusher to produce an inert aggregate. Timber is sent to the on-site timber shredder. Metals are stored pending consignment from the site.

Wood, Timber and Green Waste

The wood and timber recovered on-site is shredded externally in the north of the site and sent off-site for disposal or recovery. Untreated timber accepted at the site is classed as A-grade timber and segregated from treated & recovered timber.

Green waste is stored pending transfer to an off-site composting facility. Although the Licence allows for in-vessel composting of biodegradable waste, this has not yet started.

Civic Amenity Area

The civic amenity area is located to the Northwest of the original Transfer Building. There are a number of closed 14 yard skips for MSW and separate bays for timber, green waste, metals and mixed wastes.

Hazardous Wastes

The Licence allows the acceptance of small volumes of hazardous waste at the civic amenity area (WEEE, bonded asbestos materials and chlorofluorocarbons). These wastes are stored in the waste quarantine area in suitable receptacles pending removal off site to approved facilities.

2.2.2 *Plant List*

A list of the plant in use at the facility is given in Table 2.1. The plant provides 100% duty and 50% standby for waste processing.

Table 2.1 Existing Plant

No.	Plant	Model	Processing Capacity
1	Fuchs Grab F4	MHL340	30t/hr
1	Liebherr Grab/Excavator	R914	60t/hr
1	Volvo Loading Shovel	L70E	20t/hr
2	Liebherr Loading Shovel	564	85t/hr
1	O&K Loading Shovel	L15.5	20t/hr
1	Mitsubishi Forklift	2.5t	15hr/wk
1	Mitsubishi Forklift	3.0t	65hr/wk
1	JCB Teletruk	3.5t	65hr/wk
1	Forklift Road Sweeper	MS 750 C	15hr/wk
1	DMR Process line	Turmec	8t/hr
1	DMR Baler	Bollegraaf HBC 60	70t/day
1	Generator	FG Wilson	78hr/week
1	C&I/C&D Process Line	Waltec	35t/hr
1	Erin Stone Screener	Fingerscreen	400t/day
1	Hammel Timber Pre Shredder	VB 750 D	30t/hr
1	Beast Timber shredder	3680	40t/hr
1	Tractor	Massey Ferguson 4255	2hr/wk
1	MSW compactor		80t/day
1	Weighbridge 2 Scales	RiteWeigh Aran Series 18 m	62hr/wk

3. EMISSION MONITORING

Greenstar implements a comprehensive environmental monitoring programme to assess the significance of emissions from site activities. The programme from 2010 included groundwater, surface water, leachate, sewer emissions, landfill gas, noise and dust monitoring. The monitoring locations are shown on Figure 3.1. The monitoring results are submitted to the Agency at quarterly intervals. An overview of the monitoring conducted in the reporting period is presented in this Section, with summary data tables in Appendix 1.

3.1 Groundwater

There are four (4) on-site groundwater monitoring wells (BH-2, BH-5, BH-6 and BH-7). Monitoring wells BH-2, BH-5 and BH-7 are positioned downgradient of the former landfill area while BH-6 is upgradient. The upgradient monitoring well (BH-6) was installed in March 2009 to replace the previous well which was removed during construction of the administration building. This location was dry throughout 2010.

3.1.1 *Groundwater Levels*

Groundwater levels were recorded at quarterly intervals in each of the wells. Based on the level data the direction of groundwater flow is north easterly.

3.1.2 *Groundwater Quality*

Groundwater quality was monitored at quarterly intervals. The sampling and analysis was carried out in accordance with recognised quality assurance and control procedures. The range of quarterly and annual analysis was as specified in Schedule C of the Waste Licence and includes pH, electrical conductivity, organic, inorganic and microbiological parameters. The summary of the results is included in Appendix 1.

The water quality in the three wells was generally consistent with that established in the previous monitoring and is generally reflective of the sites historic use as a landfill. The facility operated as both a quarry and landfill between 1947 and 2000. In 2006 Greenstar submitted proposed groundwater trigger levels to the Agency for its approval. Since 2006 the proposed trigger levels for conductivity and chloride in BH-2 and BH-5 have occasionally been exceeded.

3.1.3 Estimated Annual and Cumulative Quantity of Emissions to Groundwater

There are no direct emissions to groundwater. Indirect emissions include incident rainfall and storm water run-off from some of the paved areas. There were no changes to the site layout and operation during the reporting period that resulted in new or additional sources of direct or indirect discharges to groundwater.

All surface water from the paved areas and buildings is diverted away from the filled areas thereby reducing the potential indirect impact of surface water on groundwater quality. Section 3.2 discusses the quantities of emissions to surface water.

3.2 Surface Water

The surface water drainage system in and around the site is dominated by the proximity of the Glenmunder Stream along the north eastern boundary. The Glenmunder ultimately drains to the River Dargle, which is a designated salmonoid river. Surface water run-off from the roof of the new administration building and new car park area discharges to the Glenmunder via a silt trap and oil interceptor.

Surface water quality is monitored at four locations (SW-1, SW-2, SW-3 and SW-4) on the Glenmunder and at one discharge point from the facility to the Glenmunder (SW-5). SW-1 is upstream of the site, SW-2 and SW-3 are along the site boundary and SW-4 is downstream of the site. SW-5 is the discharge point for rainfall runoff from the roof of the administration building and the car park area to the Glenmunder.

The monitoring was conducted at quarterly intervals and included in-situ and laboratory testing. It was not possible to collect samples at SW-5 in the first and second quarters 2010 as the sampling location was dry. The range of analysis was as specified in Schedule C of the Waste Licence and includes dissolved oxygen, pH, electrical conductivity, and organic and inorganic parameters. The sampling and analysis was carried out in accordance with recognised quality assurance and control procedures. A summary of the monitoring results are included in Appendix 1.

The monitoring confirmed that the quality of the surface water was generally good and that the facility was not impacting on the stream.

3.3 Wastewater

Wastewater from the facility (floor wash downs, vehicle washing) discharges to the municipal foul sewer. A wastewater sample was collected monthly from monitoring location SE-1. It was not possible to collect samples in February and July 2010, as there was no flow at the monitoring location. The range of analysis was as specified in Schedule C of the licence and

included pH, COD, BOD, suspended solids, sulphates, oils, fats and greases, mineral oils and detergents. The monitoring results are included in Appendix 1. The facility was 100% compliant with the Emission Limit Values (ELVs) set in the Licence in 2010.

3.4 Leachate

Leachate is generated by rainfall in the former landfill area. There are three leachate monitoring wells the locations of which are shown on the drawing in Figure 3.1.

3.4.1 Leachate Levels

Levels were monitored at monthly intervals during the reporting period. L-01 was not accessible in the first quarter 2010. In general the wells were either dry or contained very small volumes of liquid at the base which could not be sampled.

3.4.2 Leachate Quality

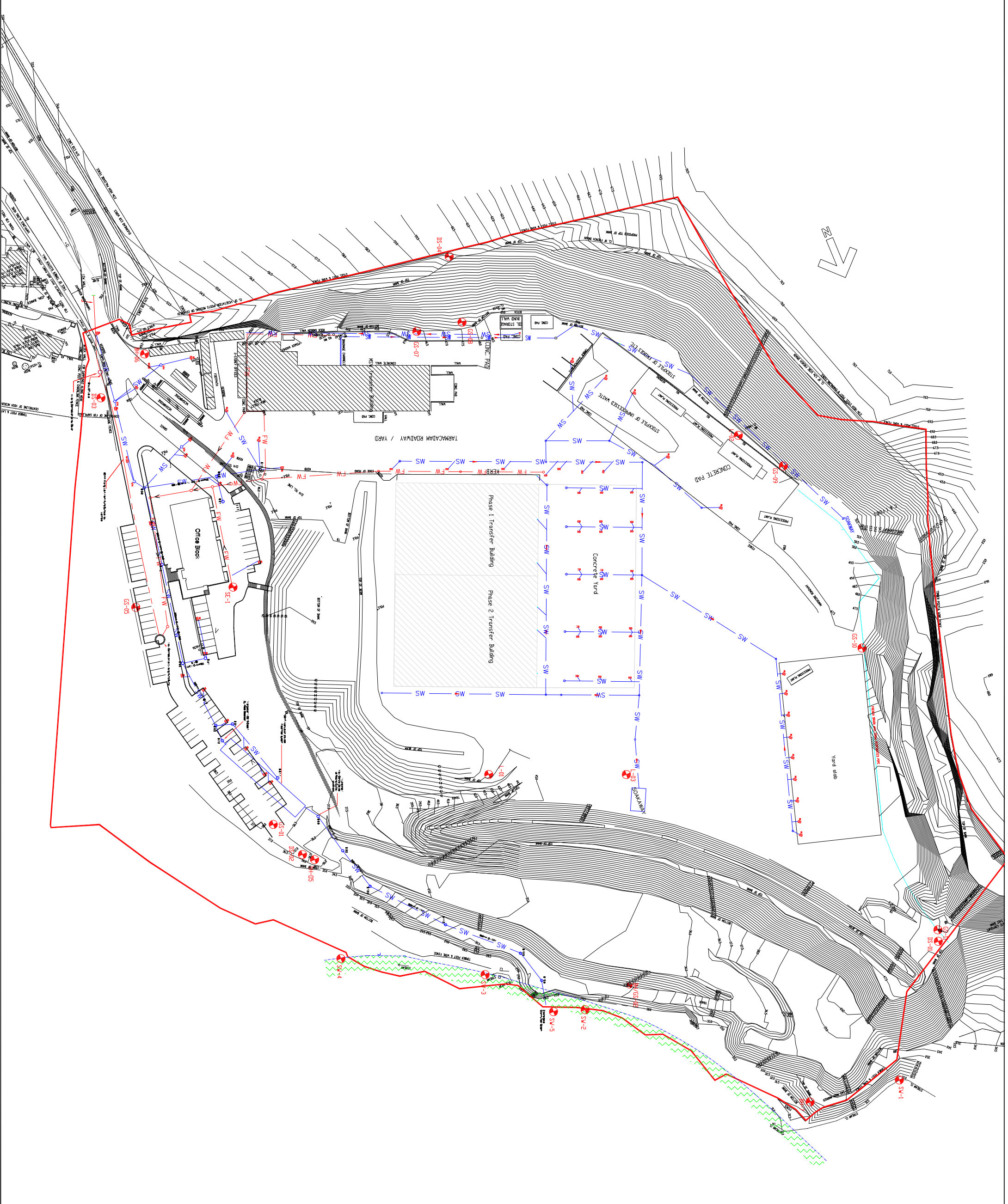
The Licence requires routine monitoring. However, over the reporting period the wells were either dry or there was an insufficient volume to collect samples.

3.5 Landfill Gas

Monitoring was carried out in accordance with Schedule C of the Waste Licence. The monitoring locations specified in the Licence include seven landfill gas wells (GS-05, GS-07, GS-08, GS-09, GS-10 and GS-11), the groundwater monitoring wells (BH-2, BH-5, BH-6 and BH-7) and the leachate boreholes (L-01, L-02 and L-03).

GS-01, GS-05, BH-2, BH-5, BH-6 and BH-7 are located outside the fill area. GS-07, GS-08, GS-09, GS-10, GS-11, L-01, L-02 and L-03 are located in the fill area. The nearest buildings to the filled area are the waste processing buildings and the site offices. OCM conducted gas monitoring in the waste processing buildings and the site offices during all monitoring events and the results are included in Appendix 1. The monitoring did not detect the presence of carbon dioxide or methane in any of the buildings.

Out of one hundred and sixty six landfill gas measurements made during the reporting period, methane was detected on ten (10) occasions in wells located in the fill area. Methane was not detected above the trigger level in any of the wells outside the waste body. Carbon Dioxide was measured at levels above the trigger level (1.5% v/v) on three (3) occasions in wells outside the waste body. The monitoring results do not indicate that landfill gas is migrating from the former fill area.



NOTES

LEGEND: MONITORING LOCATIONS
 (BH, GAS and LEACHATE)
 (SURFACE WATER, SEWER and DUST)

#	I.D.	EASTING	NORTHING
1	SE-1	324309.01	218051.50
2	BH/GS-01	324311.85	218157.81
3	BH/GS-02	324212.87	218255.62
4	BH-6	324212.87	218255.62
5	BH-7	324330.71	217905.07
6	GS-05	324331.23	218071.80
7	GS-07	324146.36	218021.76
8	GS-08	324118.57	218049.52
9	GS-09	324094.55	218100.07
10	GS-11	324100.93	218272.43
11	L-01	324231.96	218165.23
12	L-02	324108.57	218071.82
13	L-03	324552.44	218035.59
14	SW-1	324132.36	218322.94
15	SW-2	324247.97	218240.29
16	SW-3	324326.38	218166.72
17	SW-4	324359.53	218124.20
18	SW-5	324289.90	218185.10
19	N1	324310.04	217965.54
20	N2	324313.86	218013.03
21	N3	324325.62	218143.04
22	N4	324209.97	218282.19
23	NS1	324305.76	217958.30
24	NS2	324299.20	217945.31
25	DS-01	324122.92	218288.56
26	DS-02	324285.71	218205.11
27	DS-03	324315.24	218005.08
28	DS-04	324161.16	218013.86

REV	DATE	DESCRIPTION	DRN	CHKD	APP
A	05.06.2008	LAYOUT	MW	JOC	JOC

CLIENT
GREENSTAR

TITLE
 SITE LAYOUT
 FASSAROE
 Monitoring Locations

SCALE
 1:250

FIGURE No. 3.1

REV. A

This drawing is the property of O'Callaghan Moran & Associates and shall not be used, reproduced or disclosed to anyone without the prior written permission of O'Callaghan Moran & Associates and shall be returned upon request.

O'Callaghan Moran & Associates
 Granary House, Rutland Street,
 Cork, Ireland.
 Tel: (021) 4321521 Fax: (021) 4321522
 email: info@ocollagh Moran.com

3.5.1 Landfill Gas Volumes

The occasional elevated carbon dioxide concentrations and the occasional presence of methane indicate that some degree of degradation of organic waste is occurring within the fill area. Based on the available information on the site history it appears that some biodegradable material may historically have been deposited at the site. The monitoring results do not indicate that landfill gas is migrating from the former fill area.

Given that the type and quantity of the biodegradable waste deposited on-site is not known, it is impossible to predict the volumes of landfill gas that may be generated. However, the monitoring results indicate that the volume of such degradable material is likely to be small and will reduce over time.

3.5.2 Landfill Gas Control

There is no landfill gas control system on-site. The landfill gas concentrations measured in the routine monitoring programme indicate there is no need for such control measures. However, this will be kept under review based on the results of the on-going landfill gas monitoring programme.

3.6 Noise Survey

Quarterly monitoring was carried out at the four on-site noise monitoring locations, N-1, N-2, N-3 and N-4 specified in the licence and two off-site noise sensitive locations NSL1 and NSL2. The surveys were conducted when the site was fully operational and a summary of the results are included in Appendix 1.

The facility was found to be in compliance with the licence conditions. Although recorded noise levels were on occasions above the 55 dB(A) limit set in the licence, noise emissions from the facility were not audible above this limit. Offsite noise sources particularly traffic contributed significantly to the local noise environment.

3.7 Dust Monitoring

Dust monitoring is carried out monthly at four monitoring locations, DS-01, DS-02, DS-03 and DS-04. DS-01 is located at the northern portion of the facility within the site boundaries and approximately 250 m from the nearest sensitive receptor. DS-02 is located away from operational areas, close to a formerly vegetated area along the northern boundary. This location is at the edge of the car park for the administration building. DS-03 is located within the site boundary close to the car park and to the east of the site weighbridges. DS-04 is located on the southern boundary of the facility at the top of an embankment. The facility was 100% compliant with the dust deposition limit set in the licence in 2010.

4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

No Specified Engineering Works were carried out in 2010. It is not proposed to carry out any site engineering works in 2011.

4.2 Site Restoration

No site restoration works were carried out in 2010.

4.3 Site Development

In 2010 the following development works were carried out:

- Upgrade to the Waste Quarantine Area and Civic Amenity Area.
- Granted planning by Wicklow County Council for a limited change to the hours of operation so that the facility can carry out indoor processing of dry mixed recyclable material on a 24-hour day, 7-day week basis in the Phase 1 building, in line with the Technical Amendment B of Waste Licence W0053-03 granted by the Agency in 2009.

It is not proposed to carry out any development works in 2011.

4.4 Summary of Resource & Energy Consumption

Table 4.1 presents an estimate of the resources used on-site during the reporting period.

Table 4.1 Estimate of Resources Used On-Site

Resources	Quantities
Diesel	408,000 litres
Hydraulic, Transmission and Engine Oil	6,000 litres
Gear Oil	400 litres
Odour Neutraliser	2,400 litres
Truck Wash Detergent	4,000 litres
Electricity	628,353 kWh
Gas	82,372 kWh

5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

Table 5.1 shows the total quantities of waste received at and consigned from the facility in the reporting period. A breakdown of the waste types is provided in accordance with the European Waste Catalogue and Hazardous Waste list.

The total quantity of waste received was 142,365.00 tonnes. The total waste consigned was 143,248.24 tonnes. The difference between the waste accepted and consigned consists of waste which was onsite at the end of 2009 and consigned in 2010.

For comparative purposes Table 5.2 shows the total quantities of waste received at and consigned from the facility in 2009. Table 5.3 shows the quantities of waste received and consigned in previous years.

All the consigned wastes went to recovery and disposal facilities agreed with the Agency. The recycling rate for the facility is estimated at 45.02%.

Table 5.1 Waste Received and Consigned 2010

EWC	Description	Waste In	Waste Out
01 01 01	Metal	1.00	
07 05 14	Filter Cake	17.00	
10 02 11	Oil Filters		0.20
15 01 01	Cardboard & Paper Packaging	5,518.00	10,592.36
15 01 02	Plastic Packaging	657.00	2,612.50
15 01 03	Wooden Packaging	1,653.00	12.00
15 01 04	Metallic Packaging	89.00	
15 01 06	Mixed Packaging	24,319.00	
15 01 07	Glass Packaging	853.00	1,768.98
16 01 03	Rubber		11.26
16 02 14	WEEE	1.00	
16 05 04*	Gas Cylinders		3.00
16 06 01*	Batteries		2.00
17 01 01	Mixture of concrete, bricks, tiles, ceramics from C&D Waste	4,856.00	
17 02 01	Wood from C&D Waste	48.00	
17 04 02	Aluminium from C&D Waste	18.00	
17 05 04	Soil & Stone from C&D waste	17.00	
19 08 05	Liquid Waste		12.66
19 09 04	C&D Inert Mixed		22.00
19 12 07	Processed Wood	169.00	9,944.22
19 12 09	C&I Fines		23,658.08
19 12 12	Mixed Residual Waste from mechanical treatment	58,772.00	79,904.96
20 01 01	Newspapers & Pamphlets	657.00	
20 01 01	Paper & Cardboard		11,418.38
20 01 02	Glass	846.00	
20 01 08	Commercial Food Wastes	135.00	
20 01 11	Textiles	41.00	1.5
20 01 23*	Fridge Freezer CFC		1.92
20 01 35*	WEEE	1.00	11.00
20 01 38	Wood from municipal sources	2,263.00	160.58
20 01 39	Plastic from municipal sources	37.00	191.64
20 01 40	Metal from municipal sources	443.00	2,107.00
20 02 01	Biodegradable garden & park waste	4,671.00	812.00
20 02 02	Green Waste	358.00	
20 03 01	Mixed Residual Waste	7,988.00	
20 03 07	Bulky Waste	27,937.00	
	Total Received	142,365.00	
	Total Consigned		143,248.24
	Total Recovered		64,494.98
	Total Disposed		78,753.26
	Recovery Rate		45.02%

Table 5.2 Waste Received & Consigned 2009

EWC	Description	Waste In	Waste Out
10 02 11*	Oil Filters		0.16
13 02 08*	Waste Oil		1.10
15 01 01	Cardboard Packaging	3,095.40	422.62
	OCC Baled		6,497.40
	Soft Mixed Baled		4,022.06
15 01 02	Clear Plastic Baled		275.94
	Coloured Plastic Baled		132.30
	Plastic Drum Lid	2.92	
	Plastic Bottles		1,486.70
	Plastic Bottles Baled		78.90
	Plastic Film		53.32
	Plastic Film Clear		158.86
	Plastic Film Colour		192.98
	Plastic Packaging	375.82	51.08
15 01 03	Pallets	86.38	
	Wood	325.45	
	Wooden Packaging	2,050.58	
15 01 04	Aluminium	6.60	
	Aluminium Cans	33.31	36.16
	Metallic Packaging	24.24	
	Steel Cans		33.86
15 01 05	Tetra Pak Cartons	2.80	
15 01 06	Mixed Packaging	21,269.32	69.92
15 01 07	Glass Packaging	605.02	1,459.60
16 02 14	Rec Electronics & Electrics	3.94	
16 03 04	Polyurethane Foam	0.56	
16 05 04*	Gas Cylinders		3.10
17 01 07	C&D Inert Mixed	6,387.66	43.18
	Building Materials		291.06
17 04 01	Copper		
17 04 11	Cable	5.82	
17 05 04	C&D Inert Mixed	1,607.75	
	Soil & Stones	13.67	
17 06 05*	Asbestos		6.02
17 08 02	Plasterboard	4.02	77.62
17 09 04	C&D Inert Mixed	333.33	
19 05 01	Non composted Fractions	21.94	
19 12 03	Metal		8.34
19 12 07	Wood	1.02	16,939.18
19 12 09	Fines C&I		12,548.51
	Building Materials		3,544.80
19 12 12	C&I Dry Mixed	6,765.38	20,287.26
	MSW Municipal Mixed	19,372.41	40,733.43
	LDF Activated Carbon	25.46	25.46

EWC	Description	Waste In	Waste Out
20 01 01	Cardboard & Paper	108.09	
	Cardboard Packaging	20.70	
	Newsprint	74.00	
	Recy Paper	556.61	
	Election Posters	1.44	
	News & Pams Baled		74.10
	Mixed Paper Baled		9,531.9
20 01 02	Glass	707.34	482.72
20 01 08	Kitchen and Canteen Waste	407.05	
20 01 21*	Fluorescent Tubes		0.04
20 01 23*	Fridge Freezer CFC		3.20
20 01 27*	Domestic Waste		5.64
20 01 35*	Monitor TVs		24.21
20 01 36	Electronics & Electrics	1.72	
20 01 38	Wood	4,017.25	124.38
	Woodchip	1,133.14	
20 01 39	Plastic	0.63	63.51
	Metallised CDs	0.68	
20 01 40	Copper Wire		5.81
	Metal	538.45	2,492.30
	Aluminium	0.19	
20 02 01	Green Biodegradable Waste	7,591.40	43.22
	Green Mixed	64.33	
20 03 01	MSW Municipal Mixed	21,334.83	
	Unbaled MSW	1,269.13	
20 03 07	C&I Dry Mixed	35,092.99	
	Total Received	135,386.12	
	Total Consigned		122,331.95
	Total Recovered		61,297.98
	Total Disposed		61,039.99
	Recovery Rate		50.10%

Table 5.3 – Waste Received and Consigned since 2005

	2009	2008	2007	2006	2005
Total Received	135,386.12	152,695.89	192,679.93	170,600.44	178,735.424
Total Consigned	122,331.95	138,814.22	198,371.37	119,836.93	110,077.96
Total Reused on Site	0	10,828.00	39,186.00	80,328.43	60,504
Recovery Rate	50.10%	54.34%	54.9%	72%	50%

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

The routine monitoring programme identified a number of incidents during the reporting period, mainly associated with exceedance of the landfill gas emission limit for carbon dioxide as described in Section 3. These exceedances were reported in the quarterly reports, as agreed with the Agency. A summary of the incidents is shown on Table 6.1.

There were no other reportable incidents in 2010.

Table 6.1 Summary of Incidents

Nature of Incidents	Cause	Corrective Action
Carbon dioxide > trigger limit at monitoring borehole at GS-01 in 1 event, at GS-05 in 1 event and at BH-5 in 1 event.	Possible anaerobic degradation of small quantities of organic waste.	Continue routine monitoring to determine if landfill gas is being produced in significant quantities and is migrating off-site.

6.2 Register of Complaints

Greenstar maintains a register of complaints received in accordance with Condition 11.7 of the waste licence. There were no complaints received in 2010.

7. ENVIRONMENTAL DEVELOPMENT & CONTROL

7.1 Environmental Management Programme Report

In March 2010, the facility attained ISO 14001/OHSAS 18011 certification. The facility is externally audited once per year and internally audited twice per year. The management programme is encompassed in the Environmental Management System (EMS) for the facility and contains a schedule for achieving objectives and targets and designates responsibility and timeframes for achieving those targets. The EMS is reviewed annually as part of the annual management review meeting during which senior management attend.

The success on meeting targets is discussed in the AER as per condition 2.2.2 of the Licence. The schedule of Objectives and Targets, including their status for 2010 (Table 7.1), as well as the proposed Objectives and Targets for 2011 (Table 7.2) are presented below. An index of procedures used at the facility is included in Appendix 2.

7.1.1 *Schedule of Objectives and Targets 2010*

The 2010 Schedule included 6 objectives, which are summarised in Table 7.1. An evaluation of what has been achieved to date is presented below.

Objective 1 – Awareness and Training

Environmental awareness training was carried out in 2010 for all facility staff, inclusive of spill training.

Objective 2 – Energy & Resource Consumption

The usage of gas at the facility has decreased significantly since 2009. This follows the implementation of the recommendations of the energy audit which was carried out in 2008 in compliance with Condition 7.1 of the Licence.

Objective 3 – Review and Assess the Effectiveness of Nuisance Control Procedures

All procedures were reviewed as part of the Integrated Management System. The facility did not create a nuisance in 2010.

Objective 4 – Pollution Prevention

The routine environmental monitoring has confirmed that the facility is not causing pollution in the local environment.

Objective 5 – Site Development

The civic amenity and quarantine areas were re-signed and accessibility improved. The permeable area where clean skips are located was not resurfaced due to budgetary restrictions.

Objective 6 – Obtain & Improve Integrated Management System

An integrated management system inclusive of the environmental standard ISO 14001 and health and safety standard OHSAS 18011 was installed at the facility in Q1 2010. This system gained certification to both standards in March 2010.

7.1.2 Site Management Structure

Details of the site management structure are given below.

Name: Aidan Shanahan
Responsibility: Head of Leinster MRF Operations.
Experience: 8 years waste management experience, 19 years operations management experience. FÁS course completed.

Name: Sara Smyth
Responsibility: Operations Manager.
Experience: 12 years waste management experience. FÁS course completed.

Name: Arthur Walsh
Responsibility: Transport & Logistics Manager.
Experience: 19 years operations management experience. FÁS course completed.

7.2 Energy Efficiency Audit Report Summary

An energy audit was carried out by Byrne Ó Cléirigh in the second half of 2008 and was submitted to the Agency on the 6th January 2009. The audit identified that Greenstar should establish an energy management programme and also install electricity meters on the diesel generator and Combined Heat and Power unit, which would improve the collection and assessment of energy data and consumption trends.

Table 7.1 Schedule of Objective and Targets 2010

No	2010 Objective	Target	Responsibility	Status
1	Awareness and Training	Continue to ensure that appropriate training is carried out specific to all site personnel as per the Company's established Training Matrix.	Site Management	Completed
		Spill training, inclusive of a spill scenario to be carried out.		
2	Energy & Resource Consumption	Summarise energy and resource usage on a quarterly basis with a view to reducing consumption	Site Management	Completed
		Review and implement findings of Energy Audit		
3	Review and Assess the Effectiveness of Nuisance Control Procedures	Continually review and assess all nuisance control procedures to ensure minimal impact on the surrounding area.	Site Management	Completed
4	Pollution Prevention	Strive to ensure that monitoring results comply with the licence limits and investigate any exceedances of emission limit values.	Site Management	Completed
		Continue to ensure the integrity and maintenance of all drainage infrastructure.		
5	Site development	Relay surface in the empty skip storage area with crushed stone	Site management	Not Completed
		Upgrade Civic Amenity and Quarantine Area		Completed
6	Obtain & improve Integrated Management System	Hold meetings as per agreed schedule	Site management	Completed
		Update & amend documentation to reflect site developments and process changes as applicable		
		Complete facility inspections and action all non conformances raised		

Table 7.2 Schedule of Objective and Targets 2011

No	2010 Objective	Target	Responsibility	Status
1	Awareness and Training	Continue to ensure that appropriate training is carried out specific to all site personnel as per the Company's established Training Matrix.	Site Management	Q4 2011
2	Energy & Resource Consumption	Summarise energy and resource usage on a quarterly basis with a view to reducing consumption	Site Management	Q4 2011
3	Review and Assess the Effectiveness of Nuisance Control Procedures	Continually review and assess all nuisance control procedures to ensure minimal impact on the surrounding area.	Site Management	Q4 2011
4	Pollution Prevention	Strive to ensure that monitoring results comply with the licence limits and investigate any exceedances of emission limit values.	Site Management	Q4 2011
5	Infrastructure	Remove all scrap and decommissioned plant and machinery from the facility. Improve waste storage and segregation practices.	Site Management	Q4 2011

7.3 Reduction of Water Demand

The facility has ceased cleaning the bins by power hose on site instead the bins are cleaned by a specialist vehicle which has a closed loop water system. This has decreased the amount of water used at the facility.

7.4 Volume of Wastewater Produced and Transported off site

The total amount of wastewater produced during the reporting period was 808.78 m³ which was discharged to the municipal sewer.

7.5 Pollution Emission Register

The Pollution Emission Register (PER) has been replaced by the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006. A copy of the information submitted to the Agency via the web-based data reporting system is included in Appendix 3.

7.6 Nuisance Controls

Greenstar has contracted a vermin control company Pestgard to carry out nuisance control at the facility. Pestgard undertake a 6 weekly review of the vermin activity on-site along with an inspection of the bait traps that are located throughout the facility.

7.7 Tank & Pipeline Testing

Tank and pipeline testing was carried out in March 2011 and confirmed fit for purpose. The full reports will be submitted to the Agency at the beginning of Q2 2011.

7.8 Slope Stability Assessment

An assessment of the stability of the slopes was carried out in compliance with Condition 6.10 of the licence in April 2008 and was reported to the Agency as part of the 2008 AER. No further site restoration work was carried out and therefore it was not necessary to carry out a further stability assessment.

7.9 Programme for Public Information

Greenstar is committed to setting the standard in waste management and ensuring environmental compliance in all operations. In addition, Greenstar's Environmental Policy makes a specific commitment to make the environmental policy and records available to the public and interested parties. To this end Greenstar has drawn up a Communications Programme, which details how members of the public are facilitated in accessing environmental information at the facility. Records available for public inspection on site include:-

- Environmental Policy,
- Waste Licence,
- Licence Application and Review documentation,
- Monitoring Records,
- Complaints File,
- EPA Correspondence File.

Visits to the site should be arranged in advance by ringing the Facility Manager or Supervisor at 1890 600 900.

7.10 Waste Recovery Report

The facility, which is designed to increase the recycling of biodegradable materials and reduce the volume of waste disposed to landfill, meets the needs identified in EU and national waste policy statements and contributed to the achievement of these goals as out of approximately 142,365 tonnes of waste accepted approximately 45% was sent for recovery.

7.11 Revised Closure, Restoration & Aftercare Management Plan

A Closure, Restoration & Aftercare Management Plan (CRAMP) was prepared and submitted to the Agency in May 2008. The CRAMP was not required to be amended in 2010.

7.12 Measures in Relation to Prevention of Environmental Damage and Remedial Actions (Environmental Liabilities)

A revised Environmental Liabilities Risk Assessment was submitted to the Agency in February 2009.

Greenstar Ltd. has accrued over €3,000,000 in funds, to provide for any potential environmental liabilities. Greenstar Ltd. has adequate insurance cover for environmental liabilities to €6,350,000 for any one occurrence, which will apply to “sudden identifiable and unintended incidents”.

The facility has an Environmental Management Programme (EMP) in place. The EMP serves as a guidance document for facility staff and describes operational control and management practices that are applied at the facility. The EMP is also the core element of the Environmental Management System (EMS) for the facility and is designed to ensure that management of site activities complies with regulatory requirements and best practice. The EMS includes a detailed Emergency Response Procedure which sets out the steps to be taken in the event of an incident at the facility with the potential to cause environmental damage. Greenstar also implements a comprehensive monitoring programme which will highlight any potential environmental incidents with the potential to cause environmental damage.

8. OTHER REPORTS

No other reports were requested by the Agency during the reporting period.

APPENDIX 1

Environmental Monitoring Summary Tables

GROUNDWATER SUMMARY TABLES

Results 2010 Fassaroe W0053-03: BH-2

Parameter	Units	1st Quarter 2010 12/03/2010	2nd Quarter 2010 11/05/2010	3rd Quarter 2010 10/08/2010	4th Quarter 2010 03/11/2010
Temperature	°C	12.5	9.5	12.2	11.2
Chloride	mg/l	43.9	42.3	39	20.8
Ammoniacal Nitrogen -N	mg/l	<0.1	0.05	0.12	0.04
Conductivity	mS/cm	2.66	2.117	1.702	2.437
Dissolved Oxygen	mg/l	12	9	8	9
pH	pH Units	7.65	8.18	7.15	7.93
Nitrate	mg/l				2.6
Boron	mg/l				0.78.
Calcium	mg/l				460.1
Potassium	mg/l				36.5
Sodium	mg/l				39.8
Magnesium	mg/l				45.7
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				1244.59
Mercury	mg/l				<0.001
Cadmium	µg/l				<0.5
Chromium	mg/l				0.0056
Copper	µg/l				<7
Iron	µg/l				<20
Manganese	µg/l				<2
Lead	µg/l				<5
Nickel	µg/l				4
Zinc	µg/l				<3
VOC	µg/l				nd
SVOC	µg/l				nd
Pesticides	µg/l				nd
Total Coliforms	cfu/100ml				2046
Faecal Coliforms	cfu/100ml				10

Results 2010 Fassaroo W0053-03: BH-5

Parameter	Units	1st Quarter 2010 12/03/2010	2nd Quarter 2010 11/05/2010	3rd Quarter 2010 10/08/2010	4th Quarter 2010 03/11/2010
Temperature	°C	12.4	11.2	11.8	10.9
Chloride	mg/l	30.17	33.9	40.3	20.6
Ammoniacal Nitrogen -N	mg/l	<0.1	0.05	0.07	0.04
Conductivity	mS/cm	0.666	2.064	1.246	2.409
Dissolved Oxygen	mg/l	3.1	11	7	9
pH	pH Units	7.14	7.98	6.96	7.91
Nitrate	mg/l				1.5
Boron	mg/l				0.784
Calcium	mg/l				480.7
Potassium	mg/l				36.2
Sodium	mg/l				40.1
Magnesium	mg/l				45.3
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				1246.19
Mercury	mg/l				<0.001
Cadmium	µg/l				<0.5
Chromium	mg/l				0.0054
Copper	µg/l				<7
Iron	µg/l				<20
Manganese	µg/l				<2
Lead	µg/l				<5
Nickel	µg/l				4
Zinc	µg/l				3
VOC	µg/l				nd
SVOC	µg/l				nd
Pesticides	µg/l				nd
Total Coliforms	cfu/100ml				3448
Faecal Coliforms	cfu/100ml				8

Results 2010 Fassaroe W0053-03: BH-7

Parameter	Units	1st Quarter 2010 12/03/2010	2nd Quarter 2010 11/05/2010	3rd Quarter 2010 10/08/2010	4th Quarter 2010 03/11/2010
Temperature	°C	12	11	11.2	10.7
Chloride	mg/l	29.44	28.1	27.7	32.4
Ammoniacal Nitrogen -N	mg/l	1.26	0.5	0.46	0.24
Conductivity	mS/cm	1.952	0.549	0.685	0.645
Dissolved Oxygen	mg/l	2.2	11	8	7
pH	pH Units	6.89	7.39	7.07	7.94
Nitrate	mg/l				3.4
Boron	mg/l				0.03
Calcium	mg/l				101.7
Potassium	mg/l				1.8
Sodium	mg/l				16.1
Magnesium	mg/l				8.8
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				48.92
Mercury	mg/l				<0.001
Cadmium	µg/l				<0.5
Chromium	mg/l				<0.0015
Copper	µg/l				<7
Iron	µg/l				47
Manganese	µg/l				79
Lead	µg/l				<5
Nickel	µg/l				<2
Zinc	µg/l				<3
VOC	µg/l				nd
SVOC	µg/l				nd
Pesticides	µg/l				nd
Total Coliforms	cfu/100ml				5172
Faecal Coliforms	cfu/100ml				10

Surfacewater Results 2010 Fassaro W0053-03: SW-1

Parameter	Units	1st Quarter 2010 12/03/2010	2nd Quarter 2010 11/05/2010	3rd Quarter 2010 10/08/2010	4th Quarter 2010 03/11/2010
Temperature	°C	13	9	12.7	10.2
Chloride	mg/l	25.63	27.6	27.3	29.5
COD	mg/l	<8	<7	<7	11
BOD	mg/l	2	<1	<1	1
Ammoniacal Nitrogen -N	mg/l	<0.1	0.04	0.04	0.05
Tot. Susp. Solids	mg/l	3	146	5	<10
Conductivity	mS/cm	0.462	0.461	0.557	0.548
Dissolved Oxygen	mg/l	11.4	9	11	10
pH	pH Units	8.21	8.27	7.74	8.32
Nitrate	mg/l	-	-	-	7.3
Calcium	mg/l	-	-	-	90.8
Magnesium	mg/l	-	-	-	7.7
Orthophosphate	mg/l	-	-	-	0.11
Sulphate	mg/l	-	-	-	31.93
Mercury	µg/l	-	-	-	83.7
Potassium	mg/l	-	-	-	3.4
Sodium	mg/l	-	-	-	14
Boron	mg/l	-	-	-	0.036
Cadmium	µg/l	-	-	-	<0.5
Chromium	mg/l	-	-	-	0.0016
Copper	µg/l	-	-	-	<7
Iron	µg/l	-	-	-	21
Manganese	µg/l	-	-	-	<2
Nickel	µg/l	-	-	-	<2
Lead	µg/l	-	-	-	<5
Zinc	µg/l	-	-	-	<3
VOC	µg/l	-	-	-	nd
SVOC	µg/l	-	-	-	nd
Pesticides	µg/l	-	-	-	nd
Total Coliforms	cfu/100ml	-	-	-	5794
Faecal Coliforms	cfu/100ml	-	-	-	380

- Not Required

Surfacewater Results 2010 Fassaro W0053-03: SW-2

Parameter	Units	1st Quarter 2010 12/03/2010	2nd Quarter 2010 11/05/2010	3rd Quarter 2010 10/08/2010	4th Quarter 2010 03/11/2010
Temperature	°C	13.5	9.2	12.7	10.3
Chloride	mg/l	25.96	27.6	27.2	30.1
COD	mg/l	<8	<7	<7	10
BOD	mg/l	<2	<1	<1	<1
Ammoniacal Nitrogen -N	mg/l	<0.1	0.04	0.03	0.03
Tot. Susp. Solids	mg/l	3	6	4	<10
Conductivity	mS/cm	0.498	0.46	0.562	0.554
Dissolved Oxygen	mg/l	11.4	11	11	10
pH	pH Units	8.21	8.3	7.65	8.29
Nitrate	mg/l	-	-	-	7.6
Calcium	mg/l	-	-	-	91.4
Magnesium	mg/l	-	-	-	7.8
Orthophosphate	mg/l	-	-	-	0.07
Sulphate	mg/l	-	-	-	35.15
Mercury	µg/l	-	-	-	3.1
Potassium	mg/l	-	-	-	3.6
Sodium	mg/l	-	-	-	14.2
Boron	mg/l	-	-	-	0.035
Cadmium	µg/l	-	-	-	<0.5
Chromium	mg/l	-	-	-	<0.0015
Copper	µg/l	-	-	-	<7
Iron	µg/l	-	-	-	<20
Manganese	µg/l	-	-	-	<2
Nickel	µg/l	-	-	-	<2
Lead	µg/l	-	-	-	<5
Zinc	µg/l	-	-	-	<3
VOC	µg/l	-	-	-	nd
SVOC	µg/l	-	-	-	nd
Pesticides	µg/l	-	-	-	nd
Total Coliforms	cfu/100ml	-	-	-	5172
Faecal Coliforms	cfu/100ml	-	-	-	540

- Not Required

SURFACE WATER SUMMARY TABLES

Surfacewater Results 2010 Fassaro W0053-03: SW-3

Parameter	Units	1st Quarter 2010 12/03/2010	2nd Quarter 2010 11/05/2010	3rd Quarter 2010 10/08/2010	4th Quarter 2010 03/11/2010
Temperature	°C	13.5	9.2	12.6	10.3
Chloride	mg/l	25.54	28	27.4	29.9
COD	mg/l	<8	<7	<7	8
BOD	mg/l	<2	<1	<1	<1
Ammoniacal Nitrogen -N	mg/l	<0.1	0.04	0.06	<0.01
Tot. Susp. Solids	mg/l	3	3	9	47
Conductivity	mS/cm	0.488	0.48	0.561	0.551
Dissolved Oxygen	mg/l	12.2	11	10	9
pH	pH Units	8.2	8.31	7.93	8.09
Nitrate	mg/l	-	-	-	9.8
Calcium	mg/l	-	-	-	94
Magnesium	mg/l	-	-	-	8.1
Orthophosphate	mg/l	-	-	-	<0.06
Sulphate	mg/l	-	-	-	36.75
Mercury	µg/l	-	-	-	<1
Potassium	mg/l	-	-	-	3.6
Sodium	mg/l	-	-	-	14.5
Boron	mg/l	-	-	-	0.031
Cadmium	µg/l	-	-	-	<0.5
Chromium	mg/l	-	-	-	0.0037
Copper	µg/l	-	-	-	<7
Iron	µg/l	-	-	-	23
Manganese	µg/l	-	-	-	<2
Nickel	µg/l	-	-	-	<2
Lead	µg/l	-	-	-	<5
Zinc	µg/l	-	-	-	<3
VOC	µg/l	-	-	-	nd
SVOC	µg/l	-	-	-	nd
Pesticides	µg/l	-	-	-	nd
Total Coliforms	cfu/100ml	-	-	-	5172
Faecal Coliforms	cfu/100ml	-	-	-	520

- Not Required

Surfacewater Results 2010 Fassaro W0053-03: SW-4

Parameter	Units	1st Quarter 2010 12/03/2010	2nd Quarter 2010 11/05/2010	3rd Quarter 2010 10/08/2010	4th Quarter 2010 03/11/2010
Temperature	°C	13.5	9.1	12.7	10.3
Chloride	mg/l	25.96	28.1	27.3	30.4
COD	mg/l	9	<7	<7	9
BOD	mg/l	2	<1	>1	<1
Ammoniacal Nitrogen -N	mg/l	<0.1	0.04	0.03	0.03
Tot. Susp. Solids	mg/l	5	51	42	<10
Conductivity	mS/cm	0.473	0.498	0.57	0.563
Dissolved Oxygen	mg/l	11.3	11	10	10
pH	pH Units	8.31	8.28	7.86	8.25
Nitrate	mg/l	-	-	-	11.2
Calcium	mg/l	-	-	-	91.9
Magnesium	mg/l	-	-	-	87
Orthophosphate	mg/l	-	-	-	0.03
Sulphate	mg/l	-	-	-	36.35
Mercury	µg/l	-	-	-	<1
Potassium	mg/l	-	-	-	3.5
Sodium	mg/l	-	-	-	14.2
Boron	mg/l	-	-	-	0.025
Cadmium	µg/l	-	-	-	<0.5
Chromium	mg/l	-	-	-	0.0106
Copper	µg/l	-	-	-	<7
Iron	µg/l	-	-	-	62
Manganese	µg/l	-	-	-	<2
Nickel	µg/l	-	-	-	3
Lead	µg/l	-	-	-	<5
Zinc	µg/l	-	-	-	<3
VOC	µg/l	-	-	-	nd
SVOC	µg/l	-	-	-	nd
Pesticides	µg/l	-	-	-	nd
Total Coliforms	cfu/100ml	-	-	-	6867
Faecal Coliforms	cfu/100ml	-	-	-	580

- Not Required

Surfacewater Results 2010 Fassaro W0053-03: SW-5

Parameter	Units	1st Quarter 2009 11/02/2009	2nd Quarter 2010 11/05/2010	3rd Quarter 2010 10/08/2010	4th Quarter 2010 03/11/2010
Temperature	°C	Dry	Dry	14.6	10.8
Chloride	mg/l	Dry	Dry	26	30.2
COD	mg/l	Dry	Dry	<7	9
BOD	mg/l	Dry	Dry	<1	<1
Ammoniacal Nitrogen -N	mg/l	Dry	Dry	13.49	0.04
Tot. Susp. Solids	mg/l	Dry	Dry	50	67
Conductivity	mS/cm	Dry	Dry	0.511	0.549
Dissolved Oxygen	mg/l	Dry	Dry	10	10
pH	pH Units	Dry	Dry	7.21	8.27
Nitrate	mg/l	-	-	-	12
Calcium	mg/l	-	-	-	94.6
Magnesium	mg/l	-	-	-	8.1
Orthophosphate	mg/l	-	-	-	<0.06
Sulphate	mg/l	-	-	-	35.95
Mercury	µg/l	-	-	-	<1
Potassium	mg/l	-	-	-	3.6
Sodium	mg/l	-	-	-	14.6
Boron	µg/l	-	-	-	0.031
Cadmium	µg/l	-	-	-	<0.5
Chromium	mg/l	-	-	-	0.0168
Copper	µg/l	-	-	-	<7
Iron	µg/l	-	-	-	67
Manganese	µg/l	-	-	-	<2
Nickel	µg/l	-	-	-	4
Lead	µg/l	-	-	-	<5
Zinc	µg/l	-	-	-	<3
VOC	µg/l	-	-	-	nd
SVOC	µg/l	-	-	-	nd
Pesticides	µg/l	-	-	-	nd
Total Coliforms	cfu/100ml	-	-	-	3448
Faecal Coliforms	cfu/100ml	-	-	-	1100

- Not Required

WASTEWATER SUMMARY TABLES

Wastewater Results 2010 Fassaroe W0053-03: SE-1

Parameter	units	January	February*	March	April	May	June	July*	August	September	October	November	December
pH	pH Units	7.24	N/A	7.94	6.79	7.63	8.12	N/A	7.85	8.26	6.9	7.24	7.35
Temperature	°C	10.2	N/A	6.7	10.4	11.5	13.8	N/A	14.1	13.9	11.5	11.5	13
BOD	mg/l	748	N/A	450	254	109.5	<1	N/A	119	1	175	42	83
COD	mg/l	N/A	N/A	840	N/A	468	N/A	N/A	378	N/A	N/A	194	204
Sulphate	mg/l	N/A	N/A	516.29	N/A	628.86	N/A	N/A	75.79	N/A	N/A	483.23	649
TSS	mg/l	N/A	N/A	374	N/A	107	N/A	N/A	121	N/A	N/A	93	10
Surfactants	mg/l	N/A	N/A	0.6	N/A	2.2	N/A	N/A	0.6	N/A	N/A	<0.5	0.7
Oils, Fats & Greases	mg/l	N/A	N/A	4.651	N/A	2.438	N/A	N/A	<0.01	N/A	N/A	5.764	<0.001
Mineral Oil	mg/l	N/A	N/A	<0.01	N/A	<0.01	N/A	N/A	<0.01	N/A	N/A	2.424	<0.001

* - It was not possible to collect a sample as there was no flow at the sampling location

LANDFILL GAS SUMMARY TABLES

Landfill Gas Results 2010 Fassaroo W0053-03

Sample Station Number	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	CH ₄ (% v/v)	CH ₄ (% v/v)	CH ₄ (% v/v)	CH ₄ (% v/v)	CH ₄ (% v/v)	CH ₄ (% v/v)	CH ₄ (% v/v)	CH ₄ (% v/v)	CH ₄ (% v/v)	CH ₄ (% v/v)	CH ₄ (% v/v)	CH ₄ (% v/v)
GS-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GS-05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GS-07*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GS-08*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GS-09*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GS-10*	2.5	0.0	0.0	4.2	0.0	1.1	2.2	2.1	1.8	0.0	0.0	0.0
GS-11*	0.0	0.0	#	12.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BH-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BH-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BH-6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BH-7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
L-01*	0.0	6.6	4.7	0.0	4.2	0.0	0.0	0.0	0.9	0.0	0.0	0.0
L-02*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
L-03*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

- Gas cap damaged no sample possible

Landfill Gas Results 2010 Fassaroo W0053-03

Sample Station Number	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	CO ₂ (% v/v)	CO ₂ (% v/v)	CO ₂ (% v/v)	CO ₂ (% v/v)	CO ₂ (% v/v)	CO ₂ (% v/v)	CO ₂ (% v/v)	CO ₂ (% v/v)	CO ₂ (% v/v)	CO ₂ (% v/v)	CO ₂ (% v/v)	CO ₂ (% v/v)
GS-01	0.0	0.2	0.2	0.2	0.8	0.2	0.1	0.2	0.2	0.0	3.0	1.5
GS-05	0.0	0.4	0.9	0.1	0.3	0.0	0.0	0.0	0.2	0.0	4.1	0.9
GS-07*	7.2	3.7	3.7	4.8	3.5	8.4	7.6	7.9	7.3	3.5	6.0	4.5
GS-08*	5.7	4.4	0.0	0.0	0.2	0.0	0.2	0.2	0.0	0.0	0.0	0.0
GS-09*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GS-10*	5.3	0.0	0.0	2.1	0.9	9.5	8.9	9.8	8.2	0.0	0.0	0.4
GS-11*	6.4	2.8	#	0.0	0.1	0.0	0.0	0.0	1.7	0.4	0.4	0.7
BH-2	0.1	0.5	0.3	0.5	0.3	0.0	0.2	0.1	0.0	0.5	0.0	0.0
BH-5	1.7	0.1	0.0	0.2	0.3	0.2	0.2	0.3	0.0	0.2	0.0	0.0
BH-6	0.3	1.0	0.2	0.4	0.3	0.2	0.1	0.1	1.0	0.7	1.2	1.1
BH-7	0.1	0.3	0.4	0.3	0.4	0.3	0.4	0.4	0.0	0.4	0.2	0.2
L-01*	0.0	5.3	6.0	0.0	6.3	0.0	0.0	0.0	0.2	0.9	0.9	1.1
L-02*	2.4	1.1	0.0	2.3	0.0	0.0	0.2	0.1	0.0	0.2	0.3	0.4
L-03*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.5

- Gas cap damaged no sample possible

Landfill Gas Results 2010 Fassaroo W0053-03

Sample Station Number	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	O ₂ (% v/v)	O ₂ (% v/v)	O ₂ (% v/v)	O ₂ (% v/v)	O ₂ (% v/v)	O ₂ (% v/v)	O ₂ (% v/v)	O ₂ (% v/v)	O ₂ (% v/v)	O ₂ (% v/v)	O ₂ (% v/v)	O ₂ (% v/v)
GS-01	22.9	22.9	22.9	22.8	22.8	20.1	20.4	20.1	20.1	21.0	13.6	15.6
GS-05	22.9	22.9	19.0	22.5	22.6	20.5	20.1	20.6	20.6	21.3	15.7	18.5
GS-07*	12.0	18.6	17.3	21.8	17.9	9.6	9.5	9.9	9.7	16.5	10.9	12.5
GS-08*	14.6	15.6	22.9	23.0	22.9	20.1	20.1	20.0	21.0	21.2	21.0	21.0
GS-09*	22.8	23.0	22.4	22.3	22.3	20.2	20.4	20.2	21.1	21.1	21.1	21.1
GS-10*	3.7	23.0	22.4	4.8	21.2	3.6	3.0	3.1	3.5	21.2	21.2	20.0
GS-11*	12.4	19.8	#	5.2	22.8	20.2	20.5	20.3	18.4	21.3	21.3	18.5
BH-2	22.3	22.5	22.7	22.1	22.9	20.3	20.4	20.6	20.6	19.7	21.2	21.0
BH-5	18.1	22.0	22.9	22.8	22.6	20.6	20.3	20.2	21.1	21.0	21.1	21.1
BH-6	22.0	21.2	21.1	21.8	21.9	20.3	20.5	20.4	18.9	18.2	19.0	19.2
BH-7	22.0	22.0	22.1	22.2	22.7	20.3	20.3	20.2	20.6	20.1	20.8	20.8
L-01*	22.7	2.0	0.8	21.9	0.7	20.0	20.5	20.1	21.6	19.1	19.1	19.0
L-02*	15.5	20.0	22.4	15.7	22.4	20.1	20.2	20.1	20.1	20.0	19.8	19.5
L-03*	22.6	22.5	22.5	22.1.	22.3	20.0	20.5	20.5	20.8	21.2	21.0	19.8

- Gas cap damaged no sample possible

Landfill Gas Results 2010 Fassaroo W0053-03

Sample Station Number	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Barometric Pressure (mb)	Barometric Pressure (mb)	Barometric Pressure (mb)	Barometric Pressure (mb)	Barometric Pressure (mb)	Barometric Pressure (mb)	Barometric Pressure (mb)	Barometric Pressure (mb)	Barometric Pressure (mb)	Barometric Pressure (mb)	Barometric Pressure (mb)	Barometric Pressure (mb)
GS-01	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1008	998
GS-05	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1008	998
GS-07*	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1006	998
GS-08*	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1006	998
GS-09*	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1006	998
GS-10*	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1006	998
GS-11*	999	1026	#	1001	1018	1012	1000	1001	998	1005	1006	998
BH-2	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1008	998
BH-5	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1008	998
BH-6	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1006	998
BH-7	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1008	998
L-01*	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1008	998
L-02*	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1008	998
L-03*	999	1026	1001	1001	1018	1012	1000	1001	998	1005	1008	998

- Gas cap damaged no sample possible

DUST SUMMARY TABLES

Dust Results 2010 Fassaro W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DS-01	77.6	28.1	104.8	68.8	105.9	95	49.4	105.6	117	150.2	**	66.8
DS-02	21.8	36.5	93.1	45.2	228.4	169.5	126.9	224.5	*	64.9	85	39.7
DS-03	65.8	93.2	146.3	133.2	138.6	164.2	70	48.2	139.1	186.3	185.7	146.7
DS-04	25.2	6.2	30.5	40.2	53.2	431.1	71.2	329	348.7	75.4	99.4	28.1

* - Dust gauge contaminated with bird excrement

** - Dust gauge broken due to freezing conditions

NOISE SUMMARY TABLES

Noise Results 2010 Fassaroe W0053-03 Q1

Location	Time	Measured Noise Levels (dB)			Comments
		L _{Aeq}	L _{A10}	L _{A90}	
N1	1133-1203	59	59	48	Vehicle movements through entrance & and weighbridge area dominant when present. Façade air handling emissions audible at low level. Offsite, intermittent traffic movements on local roads & through roundabout significant. Truck not associated with Greenstar facility idling at roundabout from 11:56 clearly audible. N11 traffic continuously audible in background. Birdsong. Aircraft.
N2	1205-1235	56	58	48	Vehicle movements through entrance & weighbridge area & cars accessing car park dominant when present. Façade air handling emissions audible at low level. Offsite road traffic slightly audible. Birdsong. Aircraft.
N3	1343-1413	49	51	46	Trucks & mobile plant in open areas audible at low level. In-building processing operations slightly audible continuously. N11 traffic continuously audible in background. Birdsong & aircraft.
N4	1239-1309	44	45	43	Facility emissions faintly audible, chiefly occasional skip movements. Birdsong & watercourse flow in valley dominant. Aircraft.
NSL1	1101-1131	51	54	47	Site emissions audible at low level, chiefly vehicle movements through entrance & weighbridge area. Façade air handling emissions also slightly audible. Intermittent Thornhill Road & roundabout traffic dominant when present. N11 traffic continuously audible in background. Birdsong. Aircraft.
NSL2	1420-1450	57	54	47	No facility emissions audible apart from sporadic skip movements. Wind & water movement through valley continuously audible, in addition to N11 traffic. Intermittent local traffic dominant when present. Birdsong and aircraft.

Noise Results 2010 Fassaro W0053-03 Q2

Location	Time	Measured Noise Levels (dB)			Comments
		L _{Aeq}	L _{A10}	L _{A90}	
N1	1418-1448	57	60	49	Vehicle movements through entrance and weighbridge dominant when present. Continuous noise emissions from odour management system slightly audible. Intermittent traffic on local roads and roundabout outside entrance audible. N11 traffic continuously audible and significant. Aircraft. Bird song/calls.
N2	1452-1522	56	58	49	Sporadic cars accessing carpark passing close to sound level meter. Vehicle movements audible through entrance and weighbridge. Occasional emissions audible from waste management activities within site. N11 traffic continuously audible. Bird song/calls and aircraft.
N3	1558-1628	48	49	43	Truck movements and skip management around site yard audible at low levels occasionally. Lawn mower in use further up carpark also audible. N11 traffic continuously audible. Bird song/calls. Aircraft.
N4	1526-1556	42	44	39	No site emissions audible. Noise emissions from within valley dominant: watercourse noise, bird song/calls and rustling vegetation. N11 traffic slightly audible.
NSL1	1342-1412	49	51	46	Vehicle movements through entrance and weighbridge audible. No other site emissions audible. N11 traffic noise to NE continuously audible and significant. Road traffic on roundabout outside entrance and on Thornhill Road also audible, latter dominant when present. Bird song/calls. Aircraft.
NSL2	1634-1704	59	60	49	No site emissions audible. Intermittent local road traffic dominant when present. N11 traffic otherwise dominant. Bird song/calls, rustling vegetation & aircraft.

Noise Results 2010 Fassaroe W0053-03 Q3

Location	Time	Measured Noise Levels (dB)			Comments
		L _{Aeq}	L _{A10}	L _{A90}	
N1	1102-1132	59	61	48	Truck movements through entrance and weighbridge area dominant when present. Generator emissions continuously audible at low level, not significant. Yard operations also audible at low level (trucks manoeuvring and forklift truck movement). Intermittent traffic through roundabout outside entrance significant. N11 road traffic slightly audible continuously. Bird song/calls and aircraft.
N2	1036-1106	53	55	48	Generator emissions continuously audible at low level, not significant. Yard operations also audible at low level. Traffic movements through entrance, weighbridge and on carpark access road audible. N11 road traffic slightly audible continuously. Bird song/calls, rustling vegetation and aircraft.
N3	1147-1217	50	52	45	Wood shredder emissions continuously audible at low level. Truck movements around yard also occasionally audible. Bird song/calls, rustling vegetation and aircraft. Occasionally firing bird scarer device in distance significantly impulsive.
N4	1143-1213	43	44	38	Wood shredder slightly audible continuously above bank. No other site emissions audible. Bird song/calls and rustling vegetation in valley significant. Aircraft. Occasionally firing bird scarer device in distance significantly impulsive.
NSL1	1030-1100	49	51	46	Continuous generator emissions slightly audible, not significant. Intermittent truck movements through entrance and weighbridge audible. Intermittent local traffic on Thornhill Road significant when present. Birdsong, aircraft and rustling vegetation.
NSL2	0950-1020	50	49	44	No emissions audible from facility apart from occasionally audible skip movements, and road sweeper truck slightly audible 0955-1000. Intermittent local road traffic dominant when present. Birdsong & aircraft. Rustling vegetation. Occasionally firing bird scarer device in distance significantly impulsive.

Noise Results 2010 Fassaro W0053-03 Q4

Location	Time	Measured Noise Levels (dB re. 2x10 ⁻⁵)				Comments
		L _{Aeq}	L _{A10}	L _{A90}	Specific Level*	
N1	1459-1529	60	62	51	57	Emissions from generator and façade vents continuously audible at low level. Vehicle movements through entrance and weighbridge area dominant when present, particularly trucks. Offsite, traffic noise audible through roundabout outside entrance, on local roads and on N11. Birdsong and aircraft.
N2	1355-1425	61	63	58	61	Site emissions audible continuously from several sources and dominant chiefly from generator and façade vents. Vehicle movements through weighbridge and carpark areas dominant when present. Birdsong and aircraft.
N3	1321-1351	49	51	45	49	Emissions continuously audible at low level from main waste processing building. Façade vents also slightly audible. From 1340 plant in NW yard resumed following lunch break, eventually masking all onsite and offsite sources. Prior to 1340, distant N11 traffic continuously slightly audible in background.
N4	1248-1318	46	47	46	<46	No site emissions audible. Nearby watercourse continuously dominant. Birdsong.
NSL1	1428-1458	54	57	51	51	Emissions from generator and façade vents continuously audible at low level, not significant. Vehicle movements through entrance and weighbridge area also audible. Intermittent traffic on Thornhill Road significant when present. Traffic noise also audible from N11. Birdsong and aircraft.
NSL2	1212-1242	56	56	48	48	Emissions slightly audible continuously from 2 Greenstar sources: fan vents on main building façade and plant in NW yard. Skip movements also audible occasionally. N11 traffic continuously audible in background. Intermittent local traffic dominant when present. Birdsong and aircraft. Watercourse continuously slightly audible on valley floor.

* Specific level: Sound pressure level contribution considered attributable to facility, determined from field notes, time history profiles, statistical analysis, frequency spectra and other parameters.

LEACHATE SUMMARY TABLES

Leachate Level Results 2010 Fassaroe W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
L-01	#	#	#	18.99	19.01	19.01	18.99	19.01	19.01	19	19.01	19.01
L-02	6.98	6.98	6.97	6.98	6.97	6.98	6.98	6.97	6.98	6.95	9.97	6.98
L-03	18.56	18.55	18.53	18.55	18.56	18.56	18.55	18.56	18.56	18.55	18.54	18.54

Well Blocked

APPENDIX 2

Procedures Index



Doc. No.: Control	Revision No.: As Shown	Issue Date: As Shown
Approved By:	Malcolm Dowling – Group Environmental Manager	Page 1 of 3
	Oliver Callan – Group H&S Manager	

Integrated Procedures - IP

IP-01	Document & Record Control Procedure	Rev 02, 05/02/10
IP-02	Health & Safety Risk Assessment Procedure	Rev 03, 10/03/10
IP-03	Environmental Aspects & Impacts Procedure	Rev 03, 10/03/10
IP-04	Legal & Regulatory Requirements Procedure	Rev 03, 10/03/10
IP-05	Objectives, Targets & Management Programmes Procedure	Rev 03, 10/03/10
IP-06	Competence, Training & Awareness Procedure	Rev 03, 10/03/10
IP-07	Communication & Consultation Procedure	Rev 04, 28/04/10
IP-08	Monitoring, Measurement & Improvement Procedure	Rev 02, 05/02/10
IP-09	Evaluation of Compliance Procedure	Rev 03, 10/03/10
IP-10	Non Conformances, Corrective/Preventive Actions Procedure	Rev 03, 10/03/10
IP-11	Internal Audit Procedure	Rev 03, 10/03/10
IP-12	Management Review Procedure	Rev 02, 05/02/10
IP-13	Control of Contractors/Visitors Procedure	Rev 03, 10/03/10
IP-14	Health & Safety & Environmental Monitoring	Rev 02, 05/02/10
IP-15	Emergency Preparedness & Response Procedure	Rev 02, 10/03/10

Safety Procedures - SP

SP-01	Permit to Work Procedure	Rev 03, 10/03/10
SP-02	Maintenance & Calibration Procedure	Rev 03, 10/03/10
SP-03	Mobile Plant Procedure	Rev 02, 05/02/10
SP-04	Fork Truck Procedure	Rev 03, 10/03/10
SP-05	Operation of Fixed Plant Procedure	Rev 03, 10/03/10
SP-06	Lock Out / Tag Out Procedure	Rev 03, 10/03/10
SP-07	Health & Safety Notification Procedure	Rev 03, 10/03/10

Environmental Procedures - EP

EP-01	Office Waste & Energy Management Procedure	Rev 02, 05/02/10
EP-02	Decommissioning and Aftercare Procedure	Rev 02, 05/02/10
EP-03	EPA Communications Procedure	Rev 02, 05/02/10
EP-04	Waste Permits & Licences Procedure	Rev 01, 01/10/09
EP-05	Waste Acceptance Procedure	Rev 01, 01/10/09
EP-06	Unacceptable Waste Procedure	Rev 02, 10/03/10
EP-07	Waste & Material Storage Procedure	Rev 02, 10/03/10
EP-08	Waste Processing Procedure	Rev 01, 01/10/09
EP-09	Site Infrastructure Procedure	Rev 02, 05/02/10
EP-10	Nuisance Management Procedure	Rev 02, 05/02/10
EP-11	Civic Amenity Site Procedure	Rev 02, 05/02/10



Doc. No.: Control	Revision No.: 01	Issue Date: 01 st October 2009
Approved By:	Malcolm Dowling – <i>Group Environmental Manager</i> Oliver Callan – <i>Group H&S Manager</i>	Page 3 of 3

Circulation List

The Integrated Procedures Manual is a controlled document retained by the EHS Executives. The EHS Executives will ensure that all approved amendments are made and circulated accordingly. Copies other than those listed in the table below are uncontrolled.

Copy No.	Holder
1 (Master copy)	EHS Executives
2	Facility Manager, Greenstar Limited - Fassaroe - EPA Licence No W0053-03
3	Company Intranet - All Staff (Read Only Copy)

APPENDIX 3

European Pollutant Release and Transfer Register



Environmental Protection Agency

| PRTR# : W0053 | Facility Name : Greenstar Limited | Filename : W0053_2010.xls | Return Year : 2010 |

[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.11

REFERENCE YEAR	2010
-----------------------	------

1. FACILITY IDENTIFICATION

Parent Company Name	Greenstar Limited
Facility Name	Greenstar Limited
PRTR Identification Number	W0053
Licence Number	W0053-03

Waste or IPPC Classes of Activity

No.	class_name
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.11	Blending or mixture 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.
4.4	Recycling or reclamation of other inorganic materials.
Address 1	Bray Depot
Address 2	La Vallee House
Address 3	Fassaroe
Address 4	Bray, Co. Wicklow
Country	Ireland
Coordinates of Location	-6.14136 53.1998
River Basin District	IEEA
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Suzanne Byrne
AER Returns Contact Email Address	suzanne.byrne@greenstar.ie
AER Returns Contact Position	Environmental Executive
AER Returns Contact Telephone Number	01-2947949
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	01-2947900
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	0
User Feedback/Comments	

Web Address	
--------------------	--

2. PRTR CLASS ACTIVITIES

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

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : W0053 | Facility Name : Greenstar Limited | Filename : W0053_2010.xls | Return Year : 2010 |

31/03/2011 09:51

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

POLLUTANT		RELEASERS TO AIR			Please enter all quantities in this section in KGs			
Pollutant No.	Name	M/C/E	METHOD		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
						0.0	0.0	0.0

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

Additional Data Requested from Landfill operators

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

Landfill:	Greenstar Limited				
Please enter summary data on the quantities of methane flared and / or utilised			Method Used		
	T (Total) kg/Year	M/C/E	Method Code	Designation or Description	Facility Total Capacity m3 per hour
Total estimated methane generation (as per site model)	0.0				N/A
Methane flared	0.0				0.0 (Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0				N/A

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

| PRTR# : W0053 | Facility Name : Greenstar Limited | Filename : W0053_2010.xls | Return Year : 2010 |

31/03/2011 09:51

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : W0053 | Facility Name : Greenstar Limited | Filename : W0053_2010.xls | Return Year : 201

31/03/2011 09:53

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
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

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

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

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Used		SE-1 Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
303	BOD	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited	178.0664	178.0664	0.0	0.0
306	COD	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited	337.0995	337.0995	0.0	0.0
343	Sulphate	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited	380.6394	380.6394	0.0	0.0
240	Suspended Solids	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited	114.038	114.038	0.0	0.0
308	Detergents (as MBAS)	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited	0.829	0.829	0.0	0.0
314	Fats, Oils and Greases	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited	3.465083	3.465083	0.0	0.0
324	Mineral oils	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited	1.960483	1.960483	0.0	0.0

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

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

| PRTR# : W0053 | Facility Name : Greenstar Limited | Filename : W0053_2010.xls | Return Year : 2010 |

31/03/2011 09:53

SECTION A : PRTR POLLUTANTS

POLLUTANT		RELEASERS TO LAND			Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0.0	0.0

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

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

POLLUTANT		RELEASERS TO LAND			Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0.0	0.0

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0053 | Facility Name : Greenstar Limited | Filename : W0053_2010.xls | Return Year : 2010 |

31/03/2011 09:53

Please enter all quantities on this sheet in Tonnes

6

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Address of Next Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used		Haz Waste : Name and Licence/Permit No of Recoverer/Disposer	Non Haz Waste: Address of Recoverer/Disposer		
Within the Country	10 02 11	Yes		wastes from cooling-water treatment 0.2 containing oil	R5	M	Weighed	Offsite in Ireland	Enva Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,,Ireland	Enva Ltd.,W0184-01,Clonminam Industrial Estate,Portlaoise,Co. Laois,,Ireland	Clonminam Industrial Estate,Portlaoise,Co. Laois,,Ireland
To Other Countries	15 01 01	No	22.18	paper and cardboard packaging	R3	M	Weighed	Abroad	NCH International LCC Ltd.,IRE/G113/08	3 Clarendon Road ,Herts,AL5 4NS,,United Kingdom		
Within the Country	15 01 01	No	1540.96	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Marwin Environmental,926	7 Glyntown Heights ,Glanmire,Co. Cork,,Ireland		
To Other Countries	15 01 01	No	1233.48	paper and cardboard packaging	R3	M	Weighed	Abroad	International Recycling Ltd.,IRE/G050/08	Heath House,5 Woogate Court,Norwich,NR2 4AP,United Kingdom		
To Other Countries	15 01 01	No	536.48	paper and cardboard packaging	R3	M	Weighed	Abroad	DKR Deutsche Geschäft,IRE/AG032/11	Frankfurt,Germany		
To Other Countries	15 01 01	No	7259.26	paper and cardboard packaging	R3	M	Weighed	Abroad	Cellmark USA,IRE/G180/11	200 Tamal Plaza,California,,95245,United States		
Within the Country	15 01 02	No	16.08	plastic packaging	R3	M	Weighed	Offsite in Ireland	WERS,WFP-G-09-0002-01	Tuam Business Park,Weir Road,Tuam ,Co. Galway,Ireland		
Within the Country	15 01 02	No	75.5	plastic packaging	R3	M	Weighed	Offsite in Ireland	Shabra Recycling,WFP-MN-08-0022-01	Killycard Industrial Estate,Castleblayney,Co. Monaghan,,Ireland		
To Other Countries	15 01 02	No	276.2	plastic packaging	R3	M	Weighed	Abroad	Cherry Pipes,IRE/G037/08	Unit 5 Nutts Corner Business Park,Dundrod Road,Crumlin,Co. Antrim BT29 4SR,United Kingdom		
To Other Countries	15 01 02	No	1043.96	plastic packaging	R3	M	Weighed	Abroad	Alternative Waste Solutions,IRE/G009/08	Unit 2 Britannia Business Park,Wallsend ,Tyne and Wear,NE38 6HA,United Kingdom		
Within the Country	15 01 02	No	81.86	plastic packaging	R13	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	Millennium Business Park,Grange,Ballycoolin,Dublin 11,Ireland		
To Other Countries	15 01 02	No	553.14	plastic packaging	R3	M	Weighed	Abroad	Greenway Ireland Ltd.,ROC 621 (NI 00611)	11 Porthill Road,Mountnorris,Co. Armagh,BT60 2TY,United Kingdom		
Within the Country	15 01 02	No	232.26	plastic packaging	R3	M	Weighed	Offsite in Ireland	Leinster Environmentals,WP 2008/06	Clermont Business Park,Haggardstown,Dundalk,Co. Louth,Ireland		
Within the Country	15 01 02	No	143.78	plastic packaging	R3	M	Weighed	Offsite in Ireland	C Green Plastics,IRE/AG075/08	The Murrough,Co. Wicklow,,Ireland		
To Other Countries	15 01 02	No	112.78	plastic packaging	R3	M	Weighed	Abroad	Choice Waste Management,IRE/AG050/11	Denmark House,Brick Close Kiln Farm,Milton Keynes Buckinghamshire,MK11 3DP,United Kingdom		
Within the Country	15 01 02	No	17.22	plastic packaging	R3	M	Weighed	Offsite in Ireland	Bailey Waste Recycling,WFP-FG-08-0002-01	Rosemount Business Park,Ballycoolin ,Dublin 16 ,Ireland		
Within the Country	15 01 02	No	59.72	plastic packaging	R3	M	Weighed	Offsite in Ireland	Panda Waste,W0140-04	Rathdrinagh,Beauparc,Navan,Co. Meath,Ireland		

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility	Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used		Non	Non Haz Waste: Address of Recover/Disposer				
Within the Country	15 01 03	No	12.0	wooden packaging	R3	M	Weighed	Offsite in Ireland	Max Pallet Services,Not Required		Colemanstown,Rathcoole,Co Dublin,,Ireland			
To Other Countries	15 01 07	No	1768.98	glass packaging	R3	M	Weighed	Abroad	Glassdon,LN/08/103		Antrim,BT41 3SE,United Kingdom			
Within the Country	16 01 03	No	11.26	end-of-life tyres	R5	M	Weighed	Offsite in Ireland	Crumb Rubber Ireland Ltd.,WP 033/02		Dromiskin,Dundalk,Co. Louth,Ireland			
Within the Country	16 05 04	Yes	3.0	gases in pressure containers (including halons) containing dangerous substances	R4	M	Weighed	Offsite in Ireland	WEEE Recyling Ltd,W0113-01		Cappincur Industrial Estate,Daingean Raod,Tullamore,Co. Offaly,Ireland	WEEE Recycling (KMK Metals),W0113-03,Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	
Within the Country	19 08 05	No	12.66	sludges from treatment of urban waste water	R13	M	Weighed	Offsite in Ireland	Horizon Environmental,CPD 277-2		Road,Cloghran,Co. Dublin,Ireland			
Within the Country	19 09 04	No	22.0	spent activated carbon	R13	M	Weighed	Offsite in Ireland	Recycleworks,WPT112		Dublin,,Ireland			
Within the Country	19 12 07	No	1531.54	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02		Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland			
Within the Country	19 12 07	No	1544.8	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0146-02		Knockharley,Navan,Co. Meath,,Ireland			
Within the Country	19 12 07	No	909.58	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	KTK Landfill,W0081-02		Kildare,,Ireland			
Within the Country	19 12 07	No	58.3	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Waddocks Composting,WP11/04 & WP 01/02		Killamaster,Co. Carlow,,Ireland			
Within the Country	19 12 07	No	5900.0	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Ormonde Organics,W0237-01		Estate,Rathcoole,Co. Dublin,,Ireland			
Within the Country	19 12 09	No	11319.68	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02		Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland			
Within the Country	19 12 09	No	2192.28	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	KTK Landfill,W0081-02		Kildare,,Ireland			
Within the Country	19 12 09	No	415.12	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0146-02		Knockharley,Navan,Co. Meath,,Ireland			
Within the Country	19 12 09	No	2667.0	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Cullen Excavations,Not Required		Newtownmount Kennedy,Co. Wicklow,,Ireland			
Within the Country	19 12 09	No	3464.0	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02		Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland			
Within the Country	19 12 09	No	3600.0	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Marrakesh Limited,W0048-01		Kilmurry South,Bray,Co. Wicklow,,Ireland			
Within the Country	19 12 12	No	154.22	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R13	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01		Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland			
Within the Country	19 12 12	No	26851.0	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02		Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland			

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility	Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used		Non	Non Haz Waste: Address of Recover/Disposer				
Within the Country	19 12 12	No	960.0	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R5	M	Weighed	Offsite in Ireland	Greyhound Recycling & Recovery Limited,W0205-01		Crag Avenue,Clondalkin Industrial Estate,Clondalkin ,Dublin 22,Ireland			
Within the Country	19 12 12	No	51734.0	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02		Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland			
Within the Country	19 12 12	No	168.26	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0146-02		Knockharley,Navan,Co. Meath,,Ireland			
Within the Country	19 12 12	No	37.48	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R5	M	Weighed	Offsite in Ireland	Greyhound Recycling & Recovery Limited,W0205-01		Crag Avenue,Clondalkin Industrial Estate,Clondalkin ,Dublin 22,Ireland			
To Other Countries	20 01 01	No	547.58	paper and cardboard	R3	M	Weighed	Abroad	Shakumbhri Straw Products,IRE/AG032/11		Village Devri,Distt.Moradabad,,India			
To Other Countries	20 01 01	No	530.76	paper and cardboard	R3	M	Weighed	Abroad	Shah Paper Mills,IRE/AG032/11		Unit 3,Plot 792/793,Gujarat,,India			
To Other Countries	20 01 01	No	1799.4	paper and cardboard	R3	M	Weighed	Abroad	Rainbow Papers,IRE/AG032/11		1453 Village Raipur,Taluka Kadi,Kalol-Mehsana Highway,382715,India			
To Other Countries	20 01 01	No	4249.0	paper and cardboard	R3	M	Weighed	Abroad	Peute Papier Recycling BV,IRE/G006/08		Veeplaat 40,3313 LJ Dordrecht,,Netherlands			
To Other Countries	20 01 01	No	1159.42	paper and cardboard	R3	M	Weighed	Abroad	International Recycling Ltd.,IRE/G050/08		Heath House,5 Woogate Court,Norwich,NR2 4AP,United Kingdom			
To Other Countries	20 01 01	No	1084.82	paper and cardboard	R3	M	Weighed	Abroad	Cellmark USA,IRE/G180/11		200 Tamal Plaza,California,,95245,United States			
To Other Countries	20 01 01	No	2004.06	paper and cardboard	R3	M	Weighed	Abroad	Boost Recycling Ltd.,IRE/G082/11		47 Swaffham Road,Burwell,Cambridge,CB 25 0AN,United Kingdom			
Within the Country	20 01 01	No	43.34	paper and cardboard	R3	M	Weighed	Offsite in Ireland	Bailey Waste Recycling,WFP-FG-08-0002-01		Road,Blanchardstown ,Dublin 16 ,Ireland			
Within the Country	20 01 11	No	1.5	textiles	R5	M	Weighed	Offsite in Ireland	Textile Recycling Ltd.,WPR014		Glen Abby Complex,Belgard Road,Tallaght,Dublin 24,Ireland			
Within the Country	20 01 23	Yes	1.92	discarded equipment containing chlorofluorocarbons	R4	M	Weighed	Offsite in Ireland	KMK Metals,W0113-03		Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland		KMK Metals,W0113-03,Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland
Within the Country	20 01 35	Yes	9.0	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and and 20 01 23 containing hazardous components	R4	M	Weighed	Offsite in Ireland	KMK Metals,W0113-03		Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland		KMK Metals,W0113-03,Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland
Within the Country	20 01 35	Yes	2.0	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and and 20 01 23 containing hazardous components	R4	M	Weighed	Offsite in Ireland	Immark,W0185-01		Greenogue Industrial Estate,Rathcoole,Co. Dublin,,Ireland		Immark,W0185-01,Greenogue Industrial Estate,Rathcoole,Co. Dublin,,Ireland	Greenogue Industrial Estate,Rathcoole,Co. Dublin,,Ireland
Within the Country	20 01 38	No	160.58	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	KTK Landfill,W0081-02		Kilcullen,Co. Kildare,,Ireland			

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Address of Next Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used		Haz Waste : Name and Licence/Permit No of Recoverer/Disposer	Non Haz Waste: Address of Recoverer/Disposer	11 Porthill Road,Mountnorris, Co. Armagh,BT60 2TY,United Kingdom The Murrough,Co. Wicklow,....,Ireland	Denmark House,Brick Close Kiln Farm,Milton Keynes Buckinghamshire,MK11 3DP,United Kingdom Ballymount Cross,Tallaght,Dublin 24,..,Ireland Rathdrinagh,Beauparc,Navan,Co. Meath,Ireland 10 The Anchorage Business Park,Charlotte Quay,Dublin 4,..,Ireland Kilcock Co. Kildare,.....,Ireland
To Other Countries	20 01 39	No	10.44	plastics	R3	M	Weighed	Abroad	Greenway Ireland Ltd.,ROC 621 (NI 00611)	11 Porthill Road,Mountnorris, Co. Armagh,BT60 2TY,United Kingdom The Murrough,Co. Wicklow,....,Ireland		
Within the Country	20 01 39	No	14.18	plastics	R3	M	Weighed	Offsite in Ireland	C Green Plastics,IRE/AG075/08			
To Other Countries	20 01 39	No	16.86	plastics	R3	M	Weighed	Abroad	Choice Waste Management,IRE/AG050/11	Denmark House,Brick Close Kiln Farm,Milton Keynes Buckinghamshire,MK11 3DP,United Kingdom Ballymount Cross,Tallaght,Dublin 24,..,Ireland		
Within the Country	20 01 39	No	18.66	plastics	R3	M	Weighed	Offsite in Ireland	Greenstar Environmental Services,W0039-02			
Within the Country	20 01 39	No	131.5	plastics	R3	M	Weighed	Offsite in Ireland	Panda Waste,W0140-04	Rathdrinagh,Beauparc,Navan,Co. Meath,Ireland 10 The Anchorage Business Park,Charlotte Quay,Dublin 4,..,Ireland		
Within the Country	20 01 40	No	2107.0	metals	R4	M	Weighed	Offsite in Ireland	Davis Recycling Ltd,W0134-01			
Within the Country	20 02 01	No	812.0	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Enrich Environmental,WMP 2004/57	Kilcock Co. Kildare,.....,Ireland		
Within the Country	16 06 01	Yes	2.0	lead batteries	R4	M	Weighed	Offsite in Ireland	WEEE Recyling Ltd,W0113-01	Cappincur Industrial Estate,Daingean Raod,Tullamore,Co. Offaly,Ireland	WEEE Recycling (KMK Metals),W0113-03,Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland

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