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ANNUAL ENVIRONMENTAL REPORT

GREENSTAR LIMITED

SIX CROSS ROADS, WATERFORD

LICENCE NO. W0116-02

JANUARY 2010 – DECEMBER 2010

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Project	Annual Environmental Report 2010			
Client	Greenstar Ltd. W0116-02			
Report No	Date	Status	Prepared By	Reviewed By
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1. INTRODUCTION

This is the 2010 Annual Environmental Report (AER) for Greenstar Ltd. (Greenstar) Materials Recovery Facility (MRF) at Six Cross Roads, Butlerstown, Co. Waterford. The report covers the period from the 1st January 2010 to the 31st December 2010.

The content of the AER is based on Schedule F of the Waste Licence (W0116-02) 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[1] EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency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 and Layout

The facility is located at Six Cross Roads, Carriganard, Butlerstown, Co Waterford and is accessible from the Six Cross Roads, just south of the Waterford by-pass (R710). The surrounding area to the north, south and east of the facility is occupied by industrial and commercial premises. The facility is bordered to the west by a third class road and agricultural land.

2.2 Waste Management Activities

The licence allows Greenstar to accept and process 70,000 tonnes of waste per annum, comprising commercial/industrial non-hazardous waste, household waste, and construction and demolition wastes. All waste processing takes place inside the waste transfer building, as specified in Condition 8.9 of the licence.

2.2.1 Waste Types & Processes

The facility is licensed to accept a maximum of the following waste types and quantities, as specified in Schedule A of the licence: -

- Household and Commercial (30,000 tonnes)
- Construction & Demolition (20,000 tonnes)
- Industrial Non-Hazardous Solid (20,000 tonnes).

No hazardous wastes or liquid wastes are accepted.

The maximum tonnage of each waste type accepted, may be altered with the prior agreement of the Agency as long as the total maximum tonnage is not exceeded.

The key processes carried out at the facility include: -

- Segregation of recyclable materials (paper, cardboards, plastic, wood, metals, glass);
- Bulking up of Municipal Solid Waste;

- Segregation and bulking of C&D waste;

- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets;

Household Waste

Residual or black bin household waste arrives in refuse collection vehicles and is bulked inside the transfer building before being transferred from the vehicles into large bulk transporters for consignment to an appropriately licensed landfill. Source segregated household dry recyclables are baled and stored prior to transfer to permitted/licensed off-site recycling facilities.

Commercial and Industrial Waste

Both mixed and segregated commercial waste is collected from commercial outlets. Commercial waste rich in recyclables (paper, cardboard, glass, metal, green waste and wood) is delivered to the facility both by permitted third party hauliers and by Greenstar vehicles. Plastic, card and paper are baled and stored prior to transfer to a suitable permitted/licensed off-site recycling outlet. Biodegradable wastes suitable for composting which is accepted at the facility are sent to an offsite composting facility. The remaining non-recyclable material is bulked and sent to appropriately licensed landfills.

C&D Waste

Waste loads include mixed construction and demolition wastes and soil and stone. The material arrives in skips of varying sizes. The waste loads are inspected and then processed. The majority of the incoming C&D material is recovered and sent off-site either for re-use or recycling. The non-recyclable materials are transferred to a licensed landfill.

Civic Amenity Area

The civic amenity area is located adjacent to the materials recovery building. Waste is weighed at the weighbridge and then offloaded by the public within the building. The waste is then moved to designated storage areas by site staff and compacted and loaded onto trailers for transfer off-site to appropriately licensed/permitted facilities.

2.2.1 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	Operational Capacity
1	Loading Shovel	Volvo L90 F	50 hr/wk
1	Track Machine	Cat	50 hr/wk
1	Forklift	Linde	50 hr/wk
1	Power Washer	PWP	10 hr/wk
1	Tractor Unit	Scania	20 hr/wk
1	Baler	Presona LP 40 BH	50 hr/wk
1	Weighbridge	Precia Molen I-200	50 hr/wk

3. EMISSION MONITORING

Greenstar implements the comprehensive environmental monitoring programme specified in Schedule C of the licence to assess the significance of emissions from site activities. The programme includes surface water, 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 results of the monitoring is presented in this Section, with summary data in tables included below.

3.1 Surface Water Monitoring

Surface water monitoring was carried out quarterly at three locations (SW-1, SW-2 and SW-3). It was not possible to collect a sample at SW-2 in Q4 2010 as the monitoring location was dry.

Runoff discharges to a culverted stream on the eastern side of the sites access road (cul de sac) in the industrial estate. The receiving stream runs from the New Ring Road to the Six Cross Roads and is culverted from the start of the industrial estate to the Six Cross Roads. The monitoring locations include the surface water discharge from the facility and up and downstream of the discharge as shown on Figure 2.1. SW-1 is located to the north and upstream of the facility. SW-2 is at the discharge from the facility and SW-3 is to the south and downstream, where the stream is not culverted. This is the closest accessible downstream location.

The range of analysis was as specified in Schedule C of the licence and includes quarterly monitoring of pH, electrical conductivity, Chemical Oxygen Demand (COD), total ammonia, suspended solids and mineral oils. There are no Emission Limit Values (ELV) or Trigger Levels set in the licence. Greenstar has set proposed trigger levels for the surface water emission which were incorporated into the reporting of surface water monitoring at the site commencing in Q1 2009. The proposed trigger levels apply to SW-2 only. The results are included on Tables 3.1 to 3.3.

In general the water quality at SW-1, upstream of the facility is not good and is impacted generally by activities in the surrounding area including commercial/industrial activities and farming. The quality at SW-3 is similar to that of SW-1 and does not appear to be affected by site activities.

In Q1 2010 the COD level exceeded the proposed trigger levels at SW-2 and following investigation the cause of the elevated COD levels is not known, there was no evidence of any spill in the yard on the day of sampling.

In Q2 and Q3 2010 the COD and total ammonia levels exceeded the proposed trigger levels at SW-2. After further investigation cause of the exceedances was again unknown as there was no evidence of any spill in the yard or incidents on the day of sampling.

The discharge from the facility did not have any significant adverse effect on the receiving water course in 2010. Low flow from the facility and the dilution capacity of the stream are factors in minimising any potential impacts.

Table 3.1 Surface water Monitoring Results 2010: SW-1

	Units	Q1	Q2	Q3	Q4
pH	pH units	8.25	8.23	7.38	8.22
Temperature	°C	9.1	12.7	15.3	11.0
Conductivity	mS/cm	0.401	0.499	0.366	0.389
COD	mg/l	<7	<7	<7	<7
Total Ammonia	mg/l	0.2	1.3	0.3	<0.2
Suspended Solids	mg/l	11	<10	<10	<10
Mineral Oils	mg/l	<0.01	<0.01	<0.01	<0.01

Table 3.2 Surface water Monitoring Results 2010: SW-2

	Units	Q1	Q2	Q3	Q4	Proposed Trigger Level
pH	pH units	7.90	8.34	7.75	Dry	5.5 – 9.0
Temperature	°C	7.2	9.9	17.1	Dry	-
Conductivity	mS/cm	0.646	0.756	0.555	Dry	1.000
COD	mg/l	118	78	146	Dry	40
Total Ammonia	mg/l	0.4	9.3	8.5	Dry	3.78
Suspended Solids	mg/l	26	45	65	Dry	100
Mineral Oils	mg/l	<0.01	0.068	<0.01	Dry	1.0

Table 3.3 Surface water Monitoring Results 2010: SW-3

SW-3	Units	Q1	Q2	Q3	Q4
pH	pH units	8.43	8.37	8.26	8.34
Temperature	°C	8.6	12.8	15.3	11.0
Conductivity	mS/cm	0.402	0.487	0.366	0.452
COD	mg/l	<7	<7	<7	<7
Total Ammonia	mg/l	0.2	<0.2	0.3	0.2
Suspended Solids	mg/l	5	<10	<10	<10
Mineral Oils	mg/l	<0.01	<0.01	<0.01	<0.01

3.2 Noise Survey

Greenstar carried out the bi-annual noise surveys at the facility in accordance with Schedule C of the licence in May and November 2010. Monitoring was carried out at three onsite monitoring locations (N1, N2 and N3) and two offsite monitoring locations (N4 and N5). The surveys were conducted when the site was fully operational. The surveys concluded that the facility was fully in compliance with its licence requirements. The results are included on Table 3.4 and 3.5.

In the May survey, noise levels recorded at the offsite stations N4 and N5 were 52 and 63 dB respectively. Noise emissions from the Greenstar facility were not audible at these stations with levels dominated by public road traffic.

In the November survey $L_{Aeq\ 30\ min}$ levels recorded at the offsite stations N4 and N5 were 51 and 67 dB respectively. Noise emissions from the Greenstar facility were not audible at these stations, and levels were dominated by public road traffic.

Schedule B.4 of licence specifies that noise emissions from the facility should not exceed 55 dB during daytime hours at any offsite sensitive locations. As facility emissions were not audible at N4 or N5, the licence was complied with.

Table 3.4 Noise Monitoring Results 2010: May 2010

Station	Time	$L_{Aeq\ 30\ min}$ dB	$L_{AF10\ 30\ min}$ dB	$L_{AF90\ 30\ min}$ dB	Specific level* dB	Noise audible
N1	1455-1525	64	66	52	64	Vehicles moving through entrance and around yard and weighbridge areas dominant. No other noise audible apart from front end loader and forklift truck occasionally entering yard. From 1523 ejector trailer engine operating on weighbridge dominant and intrusive.
N2	1503-1533	67	68	57	67	Truck movements around yard dominant. Front end loader and forklift truck also audible within buildings. No offsite noise audible.
N3	1539-1609	65	66	59	65	Truck movements around site dominant, particularly 2 tractor units variously idling and manoeuvring ejector trailers throughout interval. No offsite noise audible.
N4	1418-1448	52	52	40	<40	Facility emissions not discernible in commercial noise emissions slightly audible in background to north. Intermittent local traffic through junction dominant when present. Trucks audible on access road towards Greenstar facility. Crows locally significant. Bird song/calls. Aircraft.
N5	1344-1414	63	66	43	<43	No emissions audible from facility. Intermittent passing traffic dominant and intrusive. During lulls, road traffic to NW, aircraft and bird song/calls audible.

*Specific level: Sound pressure level contribution considered attributable to facility, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, near field correction if applicable, and other parameters.

Table 3.5 Noise Monitoring Results 2010: November 2010

Station	Time	$L_{Aeq\ 30\ min}$ dB	$L_{AF10\ 30\ min}$ dB	$L_{AF90\ 30\ min}$ dB	Specific level* dB	Noise audible
N1	1505-1535	54	55	48	<54	No emissions from facility, apart from arrival of van onsite at 1517, loading of wheelie bins and departure at 1522 (measurement paused when van idling adjacent to microphone at departure). Road traffic to N and NW continuously audible and prominent in background. Apart from van onsite, no local noise other than occasionally audible power hose operation at nearby premises, and bird song/calls.
N2	1540-1610	51	52	48	<48	No onsite emissions. Several offsite sources audible continuously: distant traffic to N and NW (significant), air handling unit audible at low level at adjacent premises, and radio faintly audible in adjacent building. Bird song/calls and aircraft. Front end loader at adjacent premises audible from 1600. Vehicle on local access road x3.
N3	1612-1642	57	59	55	<55	No site emissions. Road traffic noise to N and NW dominant continuously, and masking all sources other than front end loader in intermittent use at adjacent premises and vehicle on access road x1.
N4	1426-1458	51	54	42	<42	No emissions audible from facility. Intermittent local traffic through junction dominant when present. Otherwise, road traffic to N continuously audible. Local car passing SLM x3, measurement paused for one of these. No other noise audible apart from bird song/calls, aircraft and nearby dog barking.
N5	1348-1418	67	68	50	<50	No emissions audible from facility. Intermittent local traffic dominant when present. Otherwise, road traffic to N continuously audible. No other noise audible apart from bird song/calls and aircraft.

*Specific level: Sound pressure level contribution considered attributable to facility, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, near field correction if applicable, and other parameters.

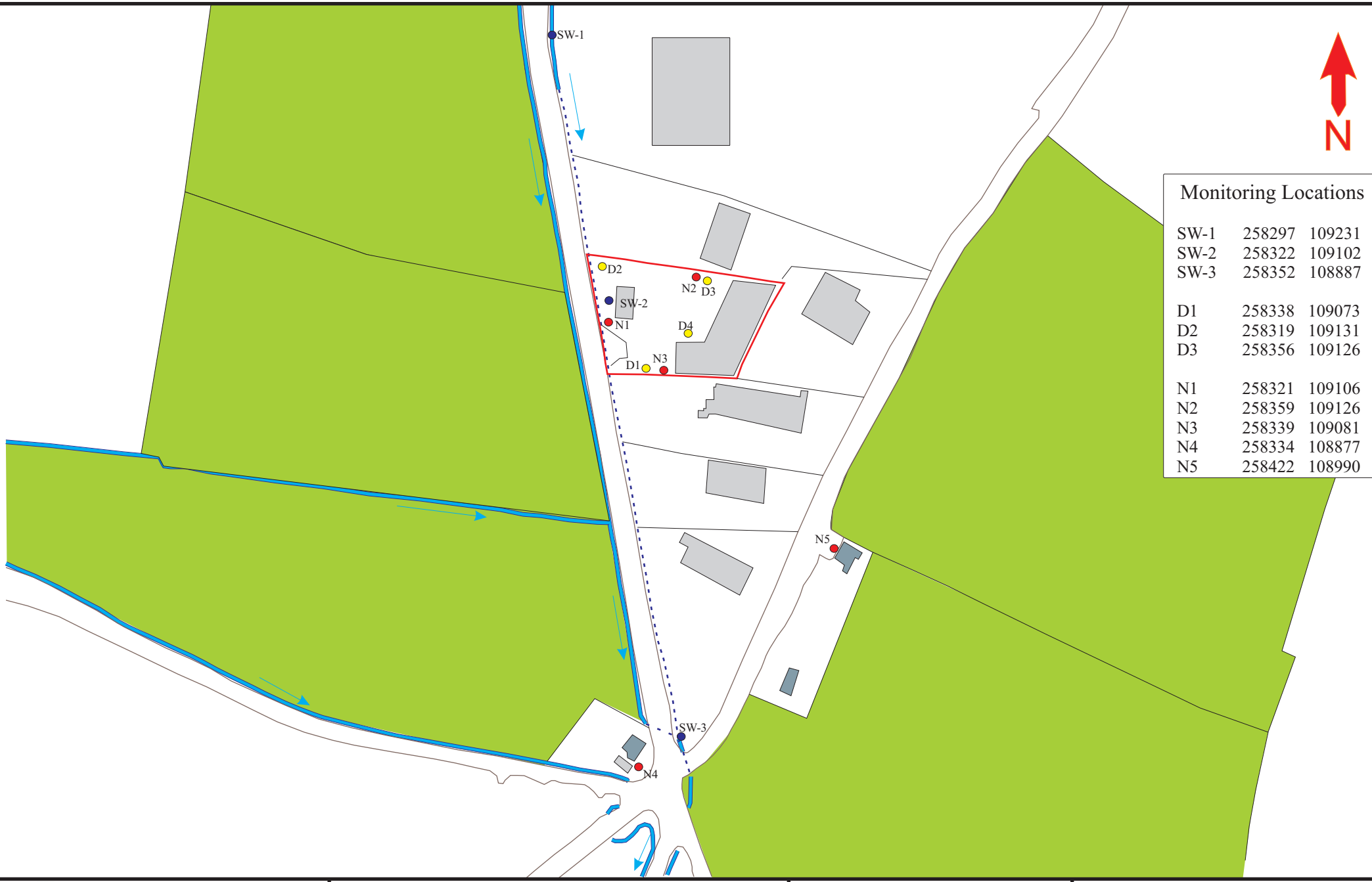
3.3 Dust Monitoring

Greenstar conducted dust monitoring on two occasions (June and August) at four on-site locations (D1, D2, D3 and D4) in accordance with Schedule C of the licence. The licence only requires monitoring at three on-site locations, however following discussions with the Agency during an Audit on March 19th 2009 in relation to the previous exceedances of the dust deposition limit, an extra dust gauge was erected at the facility (D4). This location is in the centre of the yard at the facility and is believed to be representative of the dust generated solely at the facility. The licence requires that these monitoring events be carried out between May and September. The results are included in Table 3.6.

The dust deposition limit (350 mg/m^2/day) was not exceeded at any monitoring location during the two monitoring events.

Table 3.6 Dust Monitoring Results 2010

	June '10	**August '10**	**Deposition Limit mg/m^2/day**
D1	124.2	94	350
D2	306.0	295.5	350
D3	174.1	214.6	350
D4	241.1	147.7	350



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CLIENT

Greenstar

TITLE

Monitoring Locations
Waterford

LEGEND

- Commercial/Industrial unit
- Private Dwelling
- Agricultural Land
- Surface Water Monitoring Point
- Dust Monitoring Point
- Noise Monitoring Point

FIGURE NUMBER

3.1

Scale

Not To Scale

Revision

A

4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

There were no engineering works carried out in 2010 and there are no engineering works planned for 2011. The Agency will be notified of all engineering works as per Condition 3.2 of the licence.

4.2 Summary of Resource & Energy Consumption

Table 4.3 presents an estimate of the resources used on-site during the reporting period.

Table 4.3 Estimated On-Site Resource Use

Resources	Quantities
Diesel	16,000 litres
Ad Blue	800 litres
Hydraulic Oil	400 litres
Engine Oil	500 litres
Anti Freeze	200 litres
Electricity	67,400 units

4.3 Bund Integrity Test

Bund integrity tests were carried out in April 2008, bund testing will be carried out again in 2011 in accordance with Condition 6.9 of the licence.

5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

Table 5.1 shows the total quantities of waste received and consigned from the facility in 2010, Table 5.2 shows the quantities for 2009 and Table 5.3 shows the quantities of waste received and consigned in previous years. A breakdown of the waste types is provided in accordance with the European Waste Catalogue and Hazardous Waste (EWC/HWL) list.

The total amount received in 2010 was 14,152.00 tonnes. The total amount consigned was 13,871.14 tonnes. There was no tonnage remaining on site at the end of 2010 with the difference between the waste in and the waste out (280.86 tonnes) relating to the presence of rainwater in the open top skips brought on-site. The recovery rate is estimated at 100%.

All the wastes consigned from the site went to recovery facilities agreed in advance with the Agency.

Table 5.1 Waste Received & Consigned 2010

EWC	Description	Waste In	Waste Out
15 01 01	Cardboard Packaging	694.00	656.00
15 01 02	Plastic Packaging	10.00	
15 01 03	Wooden Packaging	2.00	161.18
15 01 04	Metallic Packaging		4.16
15 01 06	Mixed Packaging	2,075.00	1,510.32
17 01 07	Mixture of concrete, bricks, tiles, ceramics from C&D Waste	1,351.00	1,746.71
17 02 01	Wood from C&D Waste	76.00	
17 05 04	Soil & Stones from C&D Waste	234.00	
17 08 02	Plasterboard	5.00	
19 12 07	Processed Wood	94.00	
19 12 12	Mixed Residual Waste from mechanical treatment	5,764.00	9,601.30
20 01 01	Cardboard & Paper	29.00	40.00
20 01 02	Glass	0.04	
20 01 38	Wood	33.00	107.38
20 01 40	Metal	78.00	42.00
20 03 01	Mixed Residual Waste	382.00	
20 03 07	Bulky Waste	2,664.00	
	Total Received	**14,151.00**	
	Total Consigned		**13,869.05**
	Total Recovered		**13,869.05**
	Total Disposed		**0**
	Recovery Rate		**100%**

Table 5.2 Waste Received & Consigned 2009

EWC	Description	Waste In	Waste Out
15 01 01	Cardboard Packaging	698.28	914.00
15 01 02	Plastic Packaging	23.64	7.26
15 01 03	Wooden Packaging	2.30	841.50
15 01 04	Aluminium	0.12	
	Aluminium Cans	46.68	43.54
15 01 06	Mixed Packaging	2,184.28	1,307.22
17 01 07	C&D Inert Mixed	2,892.81	4,072.54
17 05 04	C&D Inert Mixed	355.63	
	Soil & Stones	36.88	
17 08 02	Plasterboard	14.16	
19 12 12	C&I Dry Mixed	1.06	4,277.07
	MSW Municipal Mixed		10,652.37
20 01 01	Cardboard & Paper	13.34	45.00
	Multigrade Baled		47.00
	Multigrade Loose		50.56
	Recy Paper		247.48
	Multigrade for Rebaling		25.44
20 01 02	Glass	10.24	
20 01 38	Wood	914.30	11.04
20 01 39	Plastic	0.28	
20 01 40	Metal	113.55	108.90
20 03 01	MSW Municipal Mixed	7,462.46	
20 03 07	C&I Dry Mixed	7,596.15	
	Total Received	**22,366.17**	
	Total Consigned		**22,650.92**
	Total Recovered		**21,636.22**
	Total Disposed		**479.28**
	Recovery Rate		**95.5%**

Table 5.3 – Waste Received and Consigned since 2006

	2009	2008	2007	2006
Total Received	22,366.17	28,595.73	31,010	34,643
Total Consigned	22,650.92	28,714.10	34,854	34,978
Recovery Rate	95.5%	96.8%	79%	62.66%

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There were no reportable incidents in 2010.

6.2 Register of Complaints

Greenstar maintains a register of complaints received in accordance with Condition 3.13 of the waste licence. No complaints were received in 2010.

7. ENVIRONMENTAL DEVELOPMENT

7.1 Environmental Management Programme Report

In compliance with Conditions 2.1 and 2.2 of the licence, Greenstar has established an Environmental Management System (EMS) for the facility. As part of this EMS Greenstar has developed a list of environmental, management, operating and maintenance procedures, details of which are outlined in Appendix 1. With the exception of the Schedule of Objectives and Targets, which are amended annually as part of the AER the environmental management programme was not amended in 2010. 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.

7.1.1 Schedule of Objectives 2010

The objectives that were achieved during this reporting period are outlined in Table 7.1. Details on the progress made are also included on the table and an evaluation of what has been achieved to date is presented below.

Objective 1 – Awareness & Training
No training was required in 2010. Training will be carried out as needed in 2011.

Objective 2 – Energy & Resource Consumption
Particular attention was paid to the electricity consumption with the solar sensors repaired on the external lighting and heaters turned off at night.

Objective 3 – Review and Assess the Effectiveness of Nuisance Control Procedures
The facility did not cause a nuisance. The nuisance control procedures are effective and routinely audited both internally and externally.

Objective 4 – Pollution Prevention
The routine environmental monitoring has confirmed that the facility is not causing pollution in the local environment.

Objective 5 – Customer Communications & Awareness
There was an increase in commercial customer recycling through the roll out of a compost collection to all commercial customers producing more than 50 kg of waste per week.

Objective 6 – Operations Management
A review was carried out of the loading and parking of ejector trailers in the yard which allowed for almost zero congestion and a safer working environment.

7.1.2 Schedule of Objectives 2011

A schedule of targets and objectives for 2011 has been set by the management of the facility. These objectives are outlined in Table 7.2.

7.1.3 Site Management Structure

Management and Staffing structure: -

Name: Declan O'Reilly

Responsibility: General Manager

Experience: 7 years experience waste management experience; has completed the FÁS waste management course.

Name: Denis Mullally

Responsibility: Operations Manager

Experience: 5 years experience waste management experience; has completed the FÁS waste management course.

Name: Ivan Cummins

Responsibility: Facility Supervisor

Experience: 26 years experience waste management experience.

7.1.4 Staff Training

No training was required in 2010.

Table 7.1 Schedule of Objective and Targets 2010

No	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	**Customer Communication & Awareness**	Increase route and truck efficiency.	Site Management	Completed
		Improve Customer Recycling Rates through the implementation of AMCS Environmental Reporting System		
6	**Operations Management**	Review segregation organisation within the Material Recovery Building	Site Management	Completed

Table 7.2 Schedule of Objective and Targets 2011

No	Objective	Target	Responsibility	Status
1	**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
2	**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

7.2 Communications Programme

All correspondence received and sent to the Agency (except commercially sensitive information) is available to the public to view 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.

Opening Times for Inspection of Records are from 10 am – 4 pm. Visits to the site should be arranged in advance by ringing the Facility Manager or Supervisor at 1890 600 900.

7.3 Report Financial Provision

Greenstar has accrued over €3,000,000 in funds to provide for any potential environmental liabilities including the unexpected closure of the facility. Greenstar Ltd. has adequate insurance cover for environmental liabilities to €6,500,000 for any one occurrence, which will apply to "sudden identifiable and unintended incidents" that might occur in the decommissioning period.

7.4 Nuisance Control

Greenstar carry out routine site inspections and litter collections in accordance with Condition 6.16 of the licence including onsite, the roadway and boundary fence locations. Greenstar has contracted a vermin control company Quality Pest Ltd to carry out nuisance control at the facility.

As mitigation against dust generation Greenstar regularly dampen the site and sweep it with a mechanical road sweeper. The frequency of this cleaning is increased depending on weather conditions.

7.5 European Pollutant Release and Transfer Register

Under the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006 Greenstar are required to submit information annually to the Agency. A copy of the information submitted to the Agency via the web-based data reporting system is included in Appendix 2.

7.6 Foul water Volume Transported Off-Site

The total amount of foul water removed to an authorised Waste Water Treatment Plant from the facility during the reporting period was 20.6 tonnes.

8. OTHER REPORTS

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

APPENDIX 1

Procedures List

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

Amendment History

Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
01.10.09	01	All	Rev 01	Initial Issue	M.D & O.C
05.02.10	02	SP 01 to SP 07 IP 01 to IP 14 EP 01 to EP 3, EP 9, EP 10 & EP 11	Rev 02	Revision of Records	M.D & O.C
05.02.10	03	IP 15	Rev 01	Inclusion of ERP	M.D & O.C
10.03.10	04	IP 15	Rev 02	Contractor site rules & Handbook	M.D & O.C
10.03.10	05	IP 02 to IP 07, IP 09 to IP 11 & IP 13 SP 01, 02 & SP 04 to SP 07	Rev 03	Revision of Records	M.D & O.C
10.03.10	06	EP 06 & EP 07	Rev 02	Inclusion of Waste Rejection Form	M.D & O.C
28.04.10	07	IP 07	Rev 04	Inclusion of meetings	M.D & O.C

APPENDIX 2

European Pollutant Release and Transfer Register

Environmental Protection Agency

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.11

REFERENCE YEAR	2010

1. FACILITY IDENTIFICATION

Parent Company Name	Waterford Utility Services (Waste Disposal) Ltd
Facility Name	Greenstar Limited
PRTR Identification Number	W0116
Licence Number	W0116-02

Waste or IPPC Classes of Activity

No.	class_name
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
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.
4.13	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.
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.

Address 1	Six Cross Roads
Address 2	Carriganard
Address 3	Butlerstown
Address 4	Co Waterford
Country	Ireland
Coordinates of Location	-7.14587 52.2306
River Basin District	IESE
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

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?	No
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# : W0116 | Facility Name : Greenstar Limited | Filename : W0116_2010.xls | Return Year : 2010 | 30/03/2011 10:26

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

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

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

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

SECTION A : PRTR POLLUTANTS

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

Please enter all quantities on this sheet in Tonnes

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 Non 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					
Within the Country	15 01 01	No	466.0	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Bailey Waste Recycling,WFP-FG-008-02-01	Rosemount Business Park,Ballycoolin Road,Blanchardstown,Dublin 16,Ireland		
Within the Country	15 01 01	No	190.0	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Greenstar Environmental Services,W0177-03	Six Cross Road Business Park,Carriganard,Waterford,. ,Ireland		
Within the Country	15 01 03	No	120.96	wooden packaging	R3	M	Weighed	Offsite in Ireland	Eras Eco Ltd.,W0211-01	Foxhole,Youghal,Co. Cork,.,Ireland		
Within the Country	15 01 03	No	40.22	wooden packaging	R3	M	Weighed	Offsite in Ireland	OD Recycling,WM/WP/06/03	Ballyboe,Ballypatrick,Clonmel ,Co. Tipperary,Ireland		
Within the Country	15 01 04	No	4.16	metallic packaging	R4	M	Weighed	Offsite in Ireland	Molloy Metals Recycling,WP/00/015	Ballycarney,Enniscorthy,Co. Wexford,.,Ireland		
Within the Country	15 01 06	No	1107.0	mixed packaging	R5	M	Weighed	Offsite in Ireland	Clearpoint Reycling ,WFP-TS-08-0079-01	Ballylynch,Carrick-On-Suir,Co. Tipperary,.,Ireland		
Within the Country	15 01 06	No	42.36	mixed packaging	R13	M	Weighed	Offsite in Ireland	Greenstar Limited,W0053-03	Fassaroe,Bray,Co. Wicklow,.,Ireland		
Within the Country	15 01 06	No	360.96	mixed packaging	R5	M	Weighed	Offsite in Ireland	Waterford County Council,W0189-01	Shandon,Dungarvan,Co. Waterford,.,Ireland		
Within the Country	17 01 07	No	1746.71	mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	R5	M	Weighed	Offsite in Ireland	Adam Greene,WP 68-06	Killowen Orchard,Portlaw,Co. Waterford,.,Ireland		
Within the Country	19 12 12	No	1937.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	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	7664.3	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R13	M	Weighed	Offsite in Ireland	Greenstar Limited,W0053-03	Fassaroe,Bray,Co. Wicklow,.,Ireland		
Within the Country	20 01 01	No	40.0	paper and cardboard	R3	M	Weighed	Offsite in Ireland	Bailey Waste Recycling,WFP-FG-008-02-01	Rosemount Business Park,Ballycoolin Road,Blanchardstown,Dublin 16,Ireland		
Within the Country	20 01 38	No	107.38	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Waterford County Council,W0189-01	Shandon,Dungarvan,Co. Waterford,.,Ireland		
Within the Country	20 01 40	No	42.0	metals	R4	M	Weighed	Offsite in Ireland	Molloy Metals Recycling,WP/00/015	Ballycarney,Enniscorthy,Co. Wexford,.,Ireland		

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