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ANNUAL ENVIRONMENTAL REPORT
STARRUS ECO HOLDINGS LTD
MATERIALS RECOVERY FACILITY
MILLENNIUM BUSINESS PARK
LICENCE NO. W0183-01
JANUARY 2014 – DECEMBER 2014

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1. INTRODUCTION

This is the 2014 Annual Environmental Report (AER) for the Starrus Eco Holdings Ltd (Greenstar), Materials Recovery & Transfer facility (MRF) at Millennium Business Park, Ballycoolin, Dublin. It covers the period from the 1st January 2014 to the 31st December 2014. Transfer of the licence from Greenstar Limited to Starrus Eco Holdings Ltd was completed in March 2014.

The content is based on Schedule B of the Waste Licence (Reg. No. W0183-01) and the report format follows guidelines set in the “Guidance Note for Annual Environmental Report” issued by the Environmental Protection Agency (Agency)¹. Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013².

¹ EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency

² EPA (Environmental Protection Agency) 2012 Draft AER Guidance Document
C:\14\048_Greenstar\08_Millennium\AER\0480805.Doc

2. SITE DESCRIPTION

2.1 Site Location and Layout

The facility occupies 4.45 hectares (ha) in the east of the Millennium Business Park, Ballycoolin, Dublin 11. It is intended to develop the facility in a number of Phases. Phases 1 and 2 opened in July 2006 and involved the construction of the Materials Recovery Facility (MRF) building and supporting ancillaries. The licence allows for the construction of a biowaste treatment building but this has not yet been constructed.

2.2 Waste Management Activities

The facility is currently licensed to accept and process 220,000 tonnes of waste per annum, comprising commercial/industrial non-hazardous waste, municipal waste and construction and demolition wastes. All waste processing takes place inside the waste transfer building, as specified in Condition 4.1 of the Licence. The Agency has granted approval for the outdoor storage of wrapped bales of Solid Recovered Fuel (SRF).

2.2.1 Waste Types & Processes

The facility is licensed to accept the following waste types and quantities, as specified in Schedule A of the Licence

- Municipal Waste (100,000 tonnes),
- Commercial & Industrial (90,000 tonnes),
- Construction & Demolition (30,000 tonnes).

No hazardous wastes or liquid waste are accepted at the facility.

Key processes carried out include: -

- Baling and Compaction of Municipal and Commercial & Industrial (C&I) waste,
- Separation of C&I waste into different waste streams (paper, cardboard, glass, metal, organic),
- Screening of C&D waste into different waste streams (metals, concrete, bricks, tiles, plaster board, timber etc.),
- Production of SRF and baling and outdoor storage pending shipment.

C&I Waste

C&I waste is off loaded in dedicated bays inside the MRF building. Pre-segregated wastes are off loaded in separate bays from the mixed waste. On the tipping floor the waste is inspected for unsuitable materials, which are immediately removed to the waste quarantine area.

The pre-segregated material is then moved to storage bays from where it is loaded onto trailers for removal off-site. The mixed waste is initially sorted using a mechanical grab to remove large items such as timber and metal. Such items are removed to the appropriate storage/handling areas inside the building. The remaining waste is separated using the automated processing equipment (which includes some manual picking) into the different waste streams (paper, cardboard, plastic, wood, metal, fines and stone). The recovered materials are sent to authorised facilities for further recycling and the residual waste to landfill or sent to the onsite baling process for the production of SRF bales. SRF bales are stored externally pending shipment abroad for energy recovery.

Construction & Demolition Waste

C&D waste is off loaded inside the MRF building. Pre-segregated wastes are off loaded in separate bays from the mixed waste. On the tipping floor the waste is inspected for unsuitable materials, which are immediately removed to the waste quarantine area.

The pre-segregated material is then moved to storage bays from where it is loaded onto trailers for removal off-site. The mixed waste is initially sorted using a mechanical grab to remove large items such as timber and metal. Such items are removed to the appropriate storage/handling areas inside the building. The remaining waste is separated using the automated processing equipment (which includes some manual picking) into the different waste streams (paper, cardboard, plastic, wood, metal, fines and stone).

In August 2014 an SEW was submitted and approved by the Agency to allow for the removal of the C&I and C&D processing lines in Millennium Park. The works which were carried out in Q4 2014 replaced the two processing lines with specialist baling and shredding equipment for dry recyclables.

C&I, C&D and MSW continues to be bulked at the site and transported to other sites for processing or disposal.

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 On-Site Machinery

No.	Plant	Model	Operational Capacity tpd	Standby Capacity tpd
1	Bollegraaf	110 Baler	35	15
1	Bollegraaf	80 Baler	25	10
1	SRF process line	MCDI	240	0
1	Loading grab	Fuchs MHL 340	2160	1710
1	Bollegraaf	BAS 75 Shredder	20	0
1	Loading shovel	Volvo L120E	8640	7440
1	Ulster	shredder	10	0
1	Loading grab	Liebherr 924	972	672

3. EMISSION MONITORING

The monitoring required for Phases 1 and 2 includes surface water, wastewater, dust and noise monitoring. The monitoring locations are shown on Figure 3.1. As per the Licence, monitoring results are included in reports submitted to the Agency at quarterly intervals. An overview of the results of the monitoring is presented in this Section.

3.1 Surface Water Monitoring

Surface water monitoring is carried out quarterly at two monitoring points (SW-1 and SW-2) as shown on Figure 3.1. The surface water drainage system serves most of the paved area of the site and roofed areas.

The sampling and analysis was carried out in accordance with recognised quality assurance and control procedures. The results are presented in Tables 3.1 and 3.2, which include the trigger levels set in the licence. The routine monitoring results confirm 100% compliance with the trigger levels.

The ammonia and COD levels were elevated during the reporting period. Greenstar carried out jetting and cleaning of interceptors and surface water drains on site throughout 2014. No source of the elevated levels of ammonia or COD was identified on site. The Millennium Business Park management company informed Greenstar during 2014 that there was an issue with the flow within the drainage system serving the business park. It was understood that system was back flowing into the Greenstar site resulting in stagnant and nutrient rich water collecting at SW-1 and SW-2. This problem had been ongoing since 2013 which resulted in the elevated levels detected in Q-3 and Q-4 of 2013. Sampling was not undertaken in Q-2 2014 due to a misunderstanding on the part of Greenstar that sampling would not be undertaken until the drainage system was repaired by the management company. Sampling was undertaken in Q-3 following repair works to the Business Park surface water system. Up until the end of 2014 the drainage system was still not functioning fully but it no longer appeared to be back flowing into the site.

The levels of COD and ammonia were lowest in Q-4 2014. This is thought to be a result of the drainage improvement works undertaken by the business park management team.

OCM were instructed by the Agency to commence weekly monitoring at SW-1 and SW-2. This monitoring was started in January 2015.

Table 3.1 Surface Water Monitoring Results SW-1

Parameter	Units	Q-1 2014	Q-3 2014	Q-4 2014	Trigger Levels
pH	pH Units	7.39	7.28	7.19	N/A
Conductivity	mS/cm	0.478	0.326	0.359	N/A
Temperature	°C	8.4	15	7.6	N/A
Ammoniacal Nitrogen	mg/l	4.42	7.15	1.75	N/A
BOD	mg/l	11	15	7	25
COD	mg/l	27	34	18	N/A
Total Suspended Solids	mg/l	25	26	13	35
Oils, Fats & Greases	mg/l	<0.01	1.5	<0.001	N/A
Mineral Oils	mg/l	<0.01	1.5	<0.001	5

NDP – No detection possible

Table 3.2 Surface Water Monitoring Results SW-2

Parameter	Units	Q-1 2014	Q-3 2014	Q-4 2014	Trigger Levels
pH	pH Units	7.8	7.24	7.14	N/A
Conductivity	mS/cm	0.405	0.398	0.351	N/A
Temperature	°C	7.1	15.2	7.2	N/A
Ammoniacal Nitrogen	mg/l	0.96	7.12	1.83	N/A
BOD	mg/l	2	21	8	25
COD	mg/l	26	134	28	N/A
Total Suspended Solids	mg/l	30	<10	15	35
Oils, Fats & Greases	mg/l	<0.01	2.54	<0.001	N/A
Mineral Oils	mg/l	<0.01	2.54	<0.001	5

3.2 Wastewater Monitoring

Schedule D of the Licence requires the sampling of the wastewater discharge (recovered wastes storage bay floor wash downs and vehicle wash) to the municipal sewer. The wastewater sampling is carried out bi-monthly at location SE-1, as shown on Figure 3.1.

In the reporting period floor wash downs were not considered necessary. Vehicles are washed at the external truck wash facility on an intermittent basis as necessary. The wash water is directed to a silt trap and then to a petrol/oil interceptor before discharging to the municipal sewer.

OCM collected six waste water samples in 2014. The Agency collected a sample from SE-1 on the 20th January 2014. The Emission Limit Values (ELVs) were not exceeded during the reporting period and the discharge was in compliance with the licence conditions. The results are presented in Table 3.3, which includes the trigger levels and ELVs set in the licence. The routine monitoring results confirm 100% compliance with the ELVs.

Table 3.3 Wastewater Monitoring Results SE-1

Parameter	Units	Jan '14 *	Feb '14	Apr '14	Jun '14	Aug '14	Oct '14	Dec' 14	Emission Limit
pH	pH Units	7.3	8.12	6.88	7.28	6.83	7.1	7.55	6 – 10
Temperature	mS/cm	-	7.5	10.9	12.9	12.5	8.6	6.2	42
Electrical Conductivity	°C	1.545	-	1.056	1.203	1.569	0.365	0.456	-
Ammoniacal Nitrogen	mg/l	3.1	8.78	8.88	1.4	38.94	0.9	0.6	100
BOD	mg/l	2.6	9	13	18	1,736	119	4	6,000
COD	mg/l	<20	50	77	50	3,120	324	22	12,000
Total Suspended Solids	mg/l	12	134	16	12	324	488	560	2,500
Oils, Fats & Greases	mg/l	-	<0.01	<1	24.44	37.8	<0.01	<0.01	100
Phosphorous	mg/l	0.084	<0.06	0.921	4.38	4.989	0.21	<0.06	100
Surfactants	mg/l	-	<0.2	0.5	1.4	0.01	38.64	0.23	100
Sulphate	mg/l	660	140.8	50.1	52.19	245.5	<0.05	160.9	1,000

* - Agency Sample

3.3 Noise Monitoring

The annual noise survey was carried out on the 17th June 2014. The full monitoring report was submitted to the Agency in September 2014. The monitoring locations included those specified in the Licence (N-1, N-2 and N-3) and one off-site noise sensitive location NSL-1 shown on Figures 3.1 and 3.2. The survey was conducted when the site was fully operational and confirmed that noise emissions complied with the Licence conditions and that the facility is not impacting negatively on the nearest sensitive receptors. A summary of the noise results is shown on Table 3.4.

L_{Aeq 30 min} levels recorded at three onsite stations were 46-69 dB. Noise emissions from the materials recovery building air management system dominated at all three stations. It is understood that noise limits specified in waste licence W0183-01 do not apply to these stations.

At the single offsite station, the only station to which the licence noise limits apply, the L_{Aeq 30 min} level measured was 69 dB. Greenstar emissions were slightly audible during infrequent lulls in local traffic, giving rise to an estimated contribution of 41 dB. This contribution is lower than the 55 dB daytime limit specified in licence W0183-01. No tones or impulses were detected at any of the stations.

Table 3.4 Noise Monitoring Results 2014

Station	Time	L _{Aeq} 30 min dB	L _{AF10} 30 min dB	L _{AF90} 30 min dB	Specific level* dB	Noise audible
N1	1051-1121	46	49	41	46	Greenstar air handling plant noise continuously audible at low level. Intermittent truck movements around nearest yards also audible at low level. Intermittent aircraft passes at low altitude significant when present. Bird song/calls. Distant traffic audible to E.
N2	1127-1157	62	65	58	62	Air handling plant and inbuilding processing noise continuously clearly audible and dominant. Truck activity around yard areas and through weighbridge dominant when present. No other noise audible apart from intermittent aircraft passes and crow calls.
N3	1009-1039	69	72	68	69	Air handling system noise emissions continuously dominant, masking all other onsite sources apart from sporadic truck movements locally in yard. Offsite, intermittent reversing alarms and regular blow down pulse audible at adjacent premises.
NSL1	1207-1237	69	73	45	41	Frequent passing road traffic dominant, and almost continuously audible on approaches. During infrequent traffic lulls, Greenstar air handling plant slightly audible, in addition to fans at commercial premises to SW, bird song/calls and aircraft.

*Specific level: L_{Aeq} level considered attributable to facility during interval, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, spectral statistics and near field correction if applicable.

3.4 Dust Monitoring

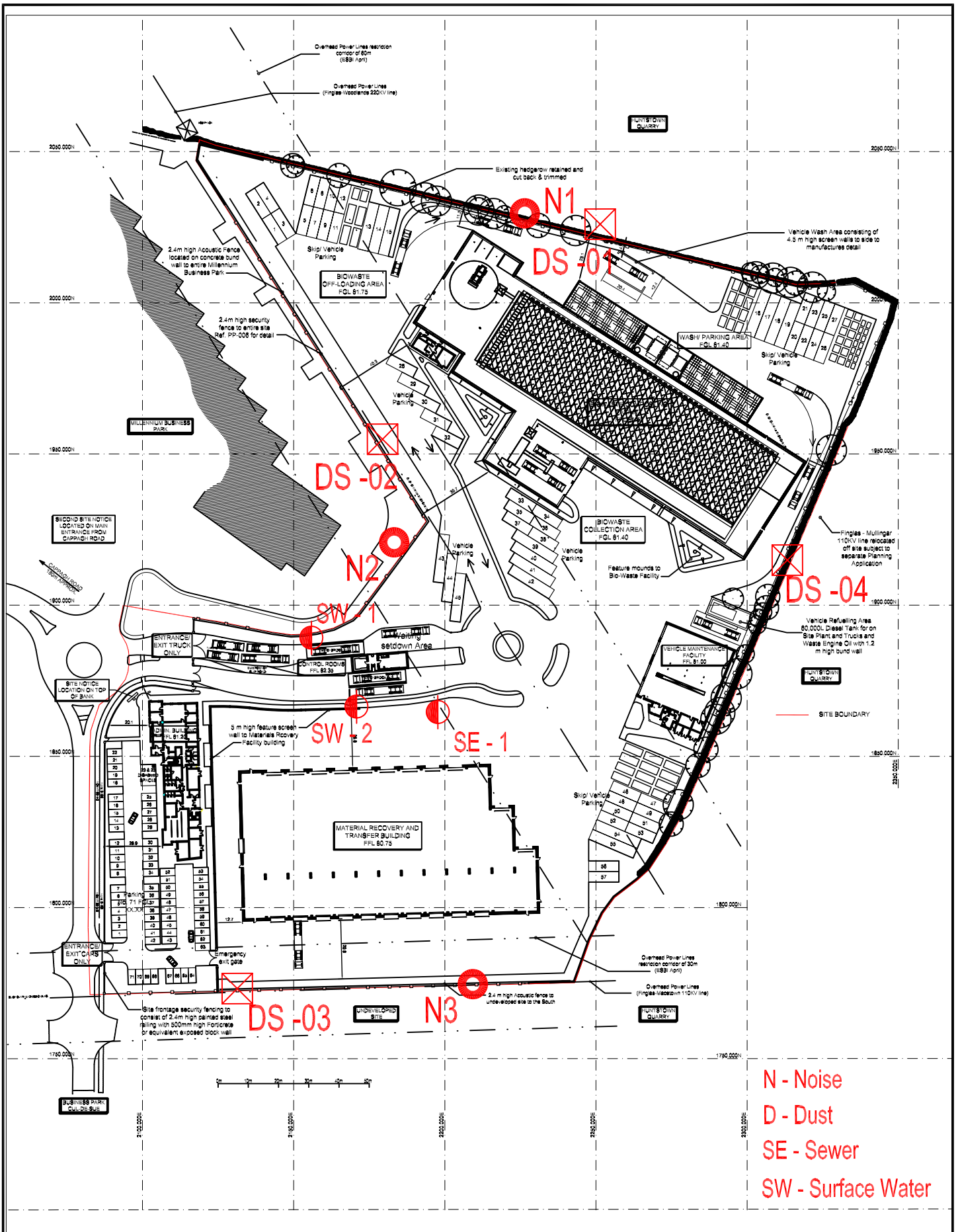
Dust monitoring was carried out on three occasions at four on-site locations (DS-01, DS-02, DS-03 and DS-04) in May, June and December 2014. The Licence requires two of these monitoring events be carried out between May and September. The results of the monitoring are included on Table 3.5.

In 2014 there were no exceedances of the dust deposition limit at any of the monitoring locations. The dust monitoring programme has shown that the facility is not a significant source of dust.

Table 3.4 Dust Monitoring Results

Monitoring Location	Units	May 2014	June 2014	December 2014	Deposition Limit Value
DS-01	mg/m ² /day	48.9	27.3	6.7	350
DS-02	mg/m ² /day	35.6	8.9	10.2	350
DS-03	mg/m ² /day	*	25.4	7.6	350
DS-04	mg/m ² /day	35.9	35.9	32.1	350

* - dust jar damaged.



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CLIENT

Greenstar □

DETAILS

DRG. No.

3.1

TITLE

MONITORING LOCATIONS
 MILLENNIUM BUSINESS PARK

SCALE REV.

NTS

A

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Figure 3.2 Noise Sensitive Location



4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

An SEW (LR011494) was submitted and approved by the Agency in August 2014. This SEW outlined a plan to remove both the C&I and Cl&D processing lines in Millennium Park, these works were carried out in Q4 2014. Specialist balers and shredders were installed in place of the processing lines when the Dry Recyclables processing operation from the Greenstar Rosemount permitted site was transferred to Millennium Park. The site now handles the sorting/segregating/ shredding and baling of paper, plastic and cardboard (OCC).

The site continues to bulk MSW, C&I and C&D waste for processing or disposal at other licensed sites

4.2 Summary of Resource & Energy Consumption

Table 4.1 presents an estimate of the resources used on-site during 2014 as well as 2013.

Table 4.1 Estimates of Resources Used On-Site 2013 - 2014

Resources	Quantities 2013	Quantities 2014
Diesel (green)	89,391 litres	73,870 litres
Electricity	2,034,000 kWh	1,492,273kWh
Hydraulic, Transmission & Engine Oil	2,060litres	1,640 litres
Truck Wash Detergent	50 litres	30 litres
Mains Water	5,344,000 litres	4,842,000 litres
Natural Gas	52,210 kWh	52,040 kWh
Anti-Freeze	80 litres	75 litres

* Mains water usage is an estimate as meter not in use.

There was a large decrease in the consumption of electricity observed in 2014 when compared to levels observed in 2013. These variances are largely the result of the removal of the mechanical processing equipment, and replacement of this with paper/cardboard/plastic balers.

4.3 Bund Integrity Testing

Condition 3.13.3 of the Licence requires that tank, drum, pipeline and bund testing is to be carried out every three years. The on-site mobile bunds were tested in December 2013 and passed fit for purpose. A report was submitted to the Agency. A CCTV survey was carried out on the site drains by Horizon Environmental in May 2013. The drains were passed fit for purpose. Integrity testing is due again in 2016.

5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

Table 5.1 shows the quantities of wastes accepted and consigned for the reporting period. A more detailed description of the wastes received and consigned in 2014 is presented in the PRTR submission in Appendix 1.

The total quantity of waste received was 80,987.80 tonnes and the total amount consigned was 79,850.41 tonnes. For comparative purposes the amounts of waste received and consigned from 2006 to 2014 are presented in Table 5.2 and 5.3. As per Condition 5.8 of the Licence, all the wastes consigned from the site went to authorised recovery and disposal facilities. A copy of the relevant Facility Permit or Waste Licences is retained on site for Agency inspection.

The records show that more waste was received at the site than consigned from the facility. The difference was 1,137.39 tonnes. The remaining difference is due to waste which remained on site at the end of 2014 which will be consigned in 2015.

All the wastes consigned from the site went to recovery and disposal facilities agreed with the Agency.

Table 5.1 Waste Received & Consigned 2014

EWC	Description	Waste In	Waste Out
101008	Gypsum	1.88	
130208	Engine Oil		1.90
150101	Cardboard Packaging	1,263.18	1,098.10
150102	Plastic Packaging	157.93	79.92
150103	Wooden Packaging	397.43	112.22
150104	Metal Packaging	26.81	
150105	Tetra Pak Cartons	3.46	
150106	Mixed Packaging	6,834.19	7,445.98
150107	Glass Packaging	7.29	
150203	Protective Gowns & Clothing	0.04	
160103	Tyres	9.40	10.48
160304	C&I Dry Mixed	4.07	
160601	Batteries		0.85
170101	Concrete		931.26
170203	Plastic	3.20	14.24
170504	Soil & Stones	100.17	
170802	Plasterboard	28.62	
170904	C&D Inert Mixed	2,518.80	
190902	Sludge		9.10
191207	Wood	375.19	1,482.38
191209	C&D Inert Mixed	399.98	14,002.82
191210	Solid Recovered Fuel (SRF)	434.98	11,084.00
191212	C&I Dry Mixed	20,509.35	12,416.50
200101	Cardboard & Paper	2,462.28	1,632.12
200102	Fibre Glass	4.12	
200108	Compost	4,123.41	4,636.70
200110	Clothing	0.36	
200111	Textile	2.50	
200135	REC Electronics & Electrics	1.94	
200138	Wood	2,029.47	2,299.50
200139	Plastic	8.64	
200140	Metal	402.40	1,611.32
200199	Grease Trap & Carbon	0.40	
200201	Green Biodegradable Waste	525.04	350.36
200301	MSW Municipal Mixed	10,161.31	8,188.62
200303	LDF Street Cleaning	3,970.89	2,956.13
200307	C&I Dry Mixed	24,219.07	9,485.91
	Total Received	80,987.80	
	Total Consigned		79,850.41
	Total Disposed		22,608.62
	Total Recovered		57,241.79
	Recovery Rate (%)		71.69

Table 5.2 Waste Received & Consigned 2013

EWC	Description	Waste In	Waste Out
101008	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07	1.08	-
130208*	other engine, gear and lubricating oils	-	0.86
150101	paper and cardboard packaging	45.24	-
150102	plastic packaging	73.12	94.60
150103	wooden packaging	366.02	29.60
150104	metallic packaging	1.68	-
150106	mixed packaging	5,314.65	5,102.11
150107	glass packaging	12.99	-
160103	end-of-life tyres	-	27.24
160504*	gases in pressure containers (including halons) containing dangerous substances	-	1.56
170107	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	-	1,908.04
170201	wood	311.19	-
170203	plastic	2.20	-
170504	soil and stones other than those mentioned in 17 05 03	478.25	-
170904	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	3,008.34	-
190502	non-composted fraction of animal & vegetable waste	21.18	-
190902	sludge from water clarification	-	9.92
191207	wood other than that mentioned in 19 12 06	-	4,315.74
191209	minerals (for example sand, stones)	466.62	23,843.00
191210	combustible waste (refuse derived fuel)	-	11,135.42
191212	other waste from mechanical treatment of wastes other than those mentioned in 19 12 11	14,617.42	21,846.87
200101	paper and cardboard	0.20	-
200102	glass	1.47	-
200108	biodegradable kitchen and canteen waste	1,492.37	2,403.26
200111	textiles	25.84	-
200138	wood other than that mentioned in 20 01 37	1,875.43	-
200139	plastics	3.48	-
200140	metals	552.52	2,581.76
200199	Grease Trap & Carbon	1.57	-
200201	biodegradable waste	169.53	-
200301	mixed municipal waste	18,500.78	3,198.90
200303	street-cleaning residues	6,496.84	4,662.38
200307	bulky waste	29,660.65	68.88
	Total Received	83,500.66	
	Total Consigned		81,230.14
	Total Disposed		13,431.62
	Total Recovered		67,798.52
	Recovery Rate (%)		83.46

Table 5.3 Waste Received & Consigned

Year	Total Received	Total Consigned
2014	80,987.80	79,850.41
2013	83,500.66	81,230.14
2012	92,484.12	87,448.73
2011	87,191	83,181
2010	74,694.50	68,868.59
2009	79,469.57	77,224.94
2008	133,813.88	129,366.26
2007	167,056.84	161,828.21
2006	79,570.21	80,725.68

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There were no reportable incidents in 2014.

6.2 Register of Complaints

Greenstar maintains a register of complaints received in accordance with Condition 9.4 of the waste licence. There were no complaints in 2014.

7. ENVIRONMENTAL DEVELOPMENT & CONTROL

7.1 Environmental Management Programme Report

Greenstar has implemented an Integrated Management System (IMS) in accordance with the requirements of Occupational Health and Safety Assessment Series (OHSAS) 18001:2007 and International Standard Organisation (ISO) 14001:2004 in order to manage the Health, Safety and Environmental performance of their business and to control health and safety risk and to minimise their environmental aspects and impacts.

The IMS has been developed for the achievement of continual improvement taking into the requirements of the Waste Licence Conditions. Greenstar has prepared and effectively implement documented procedures and instructions in accordance with the requirements of both the OHSAS 18001:2007 and ISO 14001:2004.

As part of this IMS Greenstar has developed a list of environmental, management, operating and maintenance procedures, details of which are outlined in Appendix 2.

The last external surveillance was completed during 2013. The external IMS audit was successful. There were no non-conformances were no recorded against the facility.

The schedule of Objectives and Targets, including their status for 2014 (Table 7.1), as well as the proposed Objectives and Targets for 2015 (Table 7.2) are presented below.

7.1.1 Site Management Structure 2014

The site management structure was altered during 2014 to reflect the changes to the processing operations outlined in Section 4.1

Name: Donal Monahan

Responsibility: Director Operations

Experience: 15 years experience waste management experience;

Jan – March 2014

Name: John Richardson

Responsibility: General Manager Dublin Processing.

Experience: 20 years experience; has completed the FÁS waste management course.

March – Dec 2014

Name: David Jervis

Responsibility: General Manager Recycling & Process Development

Experience: 15 years experience; has completed the FÁS waste management course.

Oct – Dec 2014

Name: Gwen Cooper

Responsibility: Acting Facility Manager

Experience: 10 years experience; has completed the “FÁS” waste management course.

Name: Robert Hughes

Responsibility: Site Operations Manager

Experience: 13 years experience in Waste management,

7.1.2 Staff Training

Environmental awareness, manual handling and lock out/tag out training was undertaken by the operations staff. Managers received environmental management system (Scannell) training.

7.2 Environmental Management Programme Proposal

7.2.1 Schedule of Objectives 2014

The objectives that were achieved during this reporting period are outlined in Table 7.1.

7.2.2 Schedule of Objectives 2015

The schedule of targets and objectives for 2015 are presented in Table 7.2.

7.3 Communications Programme

Greenstar are committed to setting the standard in waste management and ensuring environmental compliance in all operations. In addition, Greenstar’s Environmental, Health

& Safety 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, Health & Safety 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.

Table 7.1 Objectives and Targets for 2014 –

No	Objective	Target	Responsibility	Timescale
1	Development and adoption of Fire Prevention Procedure at the facility.	Reduce risk of fire and enable early detection	Site Management/EHS	This was initiated in Q3/4 of 2014 for completion in Q-1 2015.
2	Review of Emergency Response Plan to incorporate fire prevention procedure and new structure.	Revision of Plan and additional training for site personnel.	Site Management/EHS	Completed
3	Load optimisation	Increase load capacity per truck to reduce number of truck movements.	Site Supervisor	Not achieved due to extensive changes to the mechanical process within MP.
4	Reduce volumes to landfill	Reduce volumes to landfill, improve pre-sorting of waste, with special emphasis on mattresses for metal and other component recovery.	Site supervisor	Volumes reduced. Reduction will continue into 2015
5	Achieve re-certification to ISO 14001 and OHSAS 18001 standard achieved	3 year certification period expires in 2014. The facility requires re-certification.	Site Management/EHS	Achieved
6	Increase recovery of Gypsum	Improve pre-sorting of C&D waste	Site supervisor	Not achieved due to scarcity of outlet for recovery

7	Reduce energy consumption in both green diesel, and electrical energy	Reduce mobile plant idling times, switch off electrical equip. when not required	Site Supervisor	Achieved indirectly by changes to process
8	Develop and maintain traffic management plan at the facility	Review of all on-site traffic management	Site Management/EHS	New traffic management plan implemented Q4
9	Environmental Training of Facility Staff.	Update training presentation and ensure training of key managerial staff	Site Management/EHS	Ongoing
10	Site Signage.	Facility Notice Boards to be replaced to reflect new ownership	Site Management/EHS	Completed

Table 7.2 Schedule of Objective and Targets 2015 -

No.	Objective	Target	Timescale	Responsibility
1	Document a Preventative Maintenance (PM) plan for the inspection and cleaning of plant & equipment wrt fire	Incorporate into existing Site Inspection Database (EF-10A) and site specific PM plans	Q1-Q2	Site Management/EHS
2	Document PM plan for all hardstand and drainage infrastructure on site	Incorporate into existing Site Inspection Database (EF-10A)	Q1-Q2	Site Management/EHS
3	Review EWC codes in active use group wide and implement recommendations at each site	Review EWC codes with Finance/WIMS & advise changes to site management	Q2-Q3	EHS/Finance/WIMS
4	Increase awareness of Odour Management on site group wide	Specify Odour detection in Site Inspection Database (EF-10A) on a daily basis and generate actions as appropriate	Q1-Q2	Site Management/EHS
5	Track Energy Usage on site	Record electricity, gas, water and fuel consumption on site group wide	Q2-Q3	Site Management/EHS
6	Pipeline integrity testing	Complete pipeline integrity testing and carry out any remedial works required	Q3	Site Management/EHS
7	Setting of Surface Water trigger levels	Complete surface water investigation and submit required data and proposed trigger level to EPA for approval	Q2-Q3	Site Management/EHS

7.4 ELRA & Report on Financial Provision

A Decommissioning Management Plan (DMP) and Environmental Liabilities Risk Assessment (ELRA) including Financial Provision (FP) were submitted to the Agency in 2013. Both the DMP and ELRA have been approved by the Agency.

7.5 Nuisance Controls

Greenstar has contracted a vermin control company Pestguard to carry out nuisance control at the facility. Pestguard 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. Extra vermin vigilance procedures were introduced in 2013. Bird control procedures were updated in 2010 to include the use of a bird kite at the facility.

7.6 Rainwater and Wastewater Volumes

No rainwater was reused at the facility during the reporting period as the grey water reuse system has been de-commissioned. It is not possible to give an exact figure for the amount of wastewater produced during the reporting period. Approximately 6,200 litres of water was used by the truck wash during the year.

Wastewater discharges to the municipal sewer serving the industrial estate and ultimately to a waste water treatment plant operated by Fingal County Council.

8. OTHER REPORTS

8.1 European Pollutant Release and Transfer Register Regulation

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 1.

APPENDIX 1

European Pollutant Release and Transfer Register



Environmental Protection Agency

[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

REFERENCE YEAR	2014
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1. FACILITY IDENTIFICATION

Parent Company Name	Starrus Eco Holdings Limited
Facility Name	Starrus Eco Holdings Limited (Millenium Business Park)
PRTR Identification Number	W0183
Licence Number	W0183-01

Classes of Activity

No.	class name
-	Refer to PRTR class activities below

Address 1	Millennium Business Park
Address 2	Grange
Address 3	Ballycoolin
Address 4	Dublin 11
	Dublin
Country	Ireland
Coordinates of Location	-6.34044 53.4084
River Basin District	IEEA
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Malcolm Dowling
AER Returns Contact Email Address	malcolm.dowling@greenstar.ie
AER Returns Contact Position	Group Compliance Manager
AER Returns Contact Telephone Number	012947976
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	
Production Volume Units	
Number of Installations	
Number of Operating Hours in Year	
Number of Employees	
User Feedback/Comments	The level of BOD, COD, Detergents and Suspended Solids detected in the waste water discharge n 2014 was hi the drainage system within the Millennium Business Park in 2014. The system was back flowing resulting in sta water discharged increaed in 2014 also.
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

Is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE

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

This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

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: Starrus Eco Holdings Limited (Millenium Business Park)

Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m3 per hour
			Method Code	Designation or Description	
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#: W0183 | Facility Name : Starrus Eco Holdings Limited (Millenium Business Park) | Filename : W0183_2014.xls | Return Year : 2014 |

30/03/2015 17:55

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 onl

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		Method Used			QUANTITY			
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 WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		Method Used			QUANTITY			
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 WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		Method Used			QUANTITY			
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

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : W0183 | Facility Name : Starrus Eco Holdings Limited (Millenium Business Park) | Filename

30/03/2015 17:55

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 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 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 Code	Method Used Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
238	Ammonia (as N)	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited	47.6	47.6	0.0	0.0
303	BOD	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited	1519.2	1519.2	0.0	0.0
306	COD	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited	2914.4	2914.4	0.0	0.0
308	Detergents (as MBAS)	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited	39.149	39.149	0.0	0.0
314	Fats, Oils and Greases	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited	149.376	149.376	0.0	0.0
343	Sulphate	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited	623.51	623.51	0.0	0.0
240	Suspended Solids	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited	1227.2	1227.2	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# : W0183 | Facility Name : Starrus Eco Holdings Limited (Millenium Business Park) | Filename : W0183_2014.xls | Return Year : 2014 |

30/03/2015 17:55

SECTION A : PRTR POLLUTANTS

POLLUTANT		RELEASES 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		RELEASES 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# : W0183 | Facility Name : Starrus Eco Holdings Limited (Millenium Business Park) | Filename : W0183_2014.xls | Return Year : 2014 |

30/03/2015 17:55

Please enter all quantities on this sheet in Tonnes

3

Transfer Destination	European Waste Code	Missing two Per Numbers (Sunflower and Ciparo) 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 Recoverer/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recoverer/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	13 02 08	Yes	1.9	other engine, gear and lubricating oils	R3	M	Weighed	Offsite in Ireland	ENVA Ireland,W0184-01	Clonminam IE , Portlaoise ,Co. Laois,-,ireland CellMark AB ,Lilla Bommen 3C ,P O Box 11927 ,SE-404 39 Gothenburg ,Sweden Inn Road Dollingstown ,Lurgan ,County Armagh ,BT66 7JN ,united kingdom 12 The Triangle ,Nottingham ,Nottinghamshire NG2 1AE., United Kingdom Rathdown Close ,Lissue Industrial Estate	Enva Ireland Ltd, W0184-01,Clonminam IE,, Portlaoise,Co Laois,Ireland	Clonminam IE,, Portlaoise,Co Laois,Ireland
To Other Countries	15 01 01	No	44.18	paper and cardboard packaging	R3	M	Weighed	Abroad	Cellmark,TFS Broker IRE/G180/11			
To Other Countries	15 01 01	No	19.28	paper and cardboard packaging	R3	M	Weighed	Abroad	Huhtamaki (Bailey Waste Recycling NI Ltd) ,TFS Broker IRE/AG032/11			
To Other Countries	15 01 01	No	1023.86	paper and cardboard packaging	R3	M	Weighed	Abroad	Mark Lyndon Paper Enterprises,IRE/G021/12			
To Other Countries	15 01 01	No	10.78	paper and cardboard packaging	R3	M	Weighed	Abroad	Paperman Products Ltd ,TFS Broker Greenstar Ltd IRE/AG032/11	,Lisburn ,County Antrim BT28 2RB,United Kingdom		
Within the Country	15 01 02	No	44.2	plastic packaging	R3	M	Weighed	Offsite in Ireland	Polymer Recovery Ltd,WFP-LS-09-0007-01 Polymer Recovery Ltd East Canal road ,Portarlinton Business Park ,Portarlinton ireland Leinster Environmental/Eco WM Ltd ,WFP-LH-09-0004-01	Polymer Recovery Ltd ,East Canal road ,Portarlinton Business Park ,Portarlinton ,ireland	BOC Gas Dublin,,Bluebell,,Dublin 12,,Ireland	Bluebell,,Dublin 12,,Ireland
Within the Country	15 01 02	No	35.72	plastic packaging	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd ,WP-008-02	dundalk,-,-,ireland Lawlesstown , Clonmel ,Co. Tipperary , ,ireland Jamestown Business Park , Jamestown Road ,Finglas ,Dublin 11,ireland		
Within the Country	15 01 03	No	21.28	wooden packaging	R13	M	Weighed	Offsite in Ireland	Chep Pallets,NA Ire Wel Pallets Limited. ,NA Max Pallet Services Ltd.,Not Required	,Co. Wexford,-,ireland Colemanstown,Rathcoole,Co . Dublin,,Ireland Ballymount Cross,Tallaght,Dublin 24,-,ireland		
Within the Country	15 01 03	No	15.42	wooden packaging	R13	M	Weighed	Offsite in Ireland				
Within the Country	15 01 03	No	43.32	wooden packaging	R13	M	Weighed	Offsite in Ireland				
Within the Country	15 01 03	No	32.2	wooden packaging	R13	M	Weighed	Offsite in Ireland				
Within the Country	15 01 06	No	1565.66	mixed packaging	R13	M	Weighed	Offsite in Ireland	Panda,W039-02			
Within the Country	15 01 06	No	5880.32	mixed packaging	R13	M	Weighed	Offsite in Ireland	Greenstar Limited,W0053-03 Multi Metals,WFP-WW-09-0014-01	Wicklow,,Ireland ,,Blessington,Co Wicklow ,Ireland Cappincur Industrial Estate ,Daingean Road ,Tullamore , Co. Offaly ,ireland		
Within the Country	16 01 03	No	10.48	end-of-life tyres	R13	M	Weighed	Offsite in Ireland				
Within the Country	16 06 01	Yes	0.85	lead batteries	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Limited,W0113-03		KMK Metals Recycling Limited,W0113-03	Cappincur Industrial Estate ,Daingean Road ,Tullamore , Co. Offaly ,ireland
Within the Country	17 01 01	No	931.26	concrete	R5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Ltd,W0165-02	Kilcandra, Co. Wicklow,,Ireland		
Within the Country	17 02 03	No	14.24	plastic	R3	M	Weighed	Offsite in Ireland	Polymer Recovery Ltd,WFP-LS-09-0007-01 Polymer Recovery Ltd East Canal road ,Portarlinton Business Park ,Portarlinton ireland	Polymer Recovery Ltd ,East Canal road ,Portarlinton Business Park ,Portarlinton ,ireland		

Within the Country	19 09 02	No	9.1 sludges from water clarification	R3	M	Weighed	Offsite in Ireland	Rilta Environmental Ltd ,W0192-03 Block 402 Greenogue Business Park Rathcoole Co. Dublin Greenogue Business Park Rathcoole Co. Dublin ireland	Block 402 Greenogue Business Park Rathcoole Co. Dublin ,Greenogue Business Park ,Rathcoole ,Co. Dublin ,ireland Drehid Landfill, ,Carbury,Co Kildare,Ireland
Within the Country	19 12 07	No	572.94 wood other than that mentioned in 19 12 06	R5	M	Weighed	Offsite in Ireland	Bord na Mona, W0201-03 Ballynagran Landfill Ltd, W0165-02	Ballynagran, Coolbeg & Kilcandra, Co. Wicklow, ,Ireland
Within the Country	19 12 07	No	134.16 wood other than that mentioned in 19 12 06	R5	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd ,WP-008-02	Lawlesstown , Clonmel ,Co. Tipperary ,-,Ireland
Within the Country	19 12 07	No	279.76 wood other than that mentioned in 19 12 06	R5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Ltd, W0165-02	Ballynagran, Coolbeg & Kilcandra, Co. Wicklow, ,Ireland
Within the Country	19 12 07	No	116.92 wood other than that mentioned in 19 12 06	R5	M	Weighed	Offsite in Ireland	Greenstar Limited, W0053-03	Fassaroe, Bray, Co. Wicklow, ,Ireland
Within the Country	19 12 07	No	13.06 wood other than that mentioned in 19 12 06	R13	M	Weighed	Offsite in Ireland	Acorn Recycling, W0249-01	Wicklow, ,Ireland ,,, Littleton, Co Tipperary, Ireland
Within the Country	19 12 07	No	54.6 wood other than that mentioned in 19 12 06	R13	M	Weighed	Offsite in Ireland	Eirbloc, WFP-CK-11-0087-02	Lisarda, Cork, -, ,ireland Ballynagran, Coolbeg & Kilcandra, Co. Wicklow, ,Ireland
Within the Country	19 12 09	No	9973.38 minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Ballynagran Landfill Ltd, W0165-02	Ballynagran, Coolbeg & Kilcandra, Co. Wicklow, ,Ireland
Within the Country	19 12 09	No	2662.22 minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Knockharley Landfill Ltd, W0165-02	Kilcandra, Co. Wicklow, ,Ireland
Within the Country	19 12 09	No	1316.3 minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Marrakesh Landfill ,W0048-01	Kilmurry South , Bray , Co. Wicklow ,-,Ireland
Within the Country	19 12 09	No	50.92 minerals (for example sand, stones)	R13	M	Weighed	Offsite in Ireland	Greenstar Limited, W0053-03	Fassaroe, Bray, Co. Wicklow, ,Ireland
Within the Country	19 12 10	No	11084.0 combustible waste (refuse derived fuel) other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R1	M	Weighed	Offsite in Ireland	Irish Cement, IE-GHG043-05	Irish Cement, platin works, platin ,drogheda, Ireland
Within the Country	19 12 12	No	1636.94 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	Bord na Mona, W0201-03	Drehid Landfill, ,Carbury,Co Kildare, Ireland
Within the Country	19 12 12	No	2399.56 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	Ballynagran Landfill Ltd, W0165-02	Ballynagran, Coolbeg & Kilcandra, Co. Wicklow, ,Ireland
Within the Country	19 12 12	No	5767.76 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	Indaver IWMF, W0167-02	Carlanstown, ,Duleek, Co Meath, Ireland
Within the Country	19 12 12	No	339.12 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	Knockharley Landfill Ltd, W0165-02	Ballynagran, Coolbeg & Kilcandra, Co. Wicklow, ,Ireland
Within the Country	19 12 12	No	81.6 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	Panda, W039-02	Ballymount Cross, Tallaght, Dublin 24, -, ,ireland
Within the Country	19 12 12	No	12.84 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	Sunflower recycling, WFP-DC-12-0032-01	Shamrock Terrace ,North Strand ,Dublin 1, -, ,ireland
Within the Country	19 12 12	No	2178.68 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, W0053-03	Fassaroe, Bray, Co. Wicklow, ,Ireland
To Other Countries	20 01 01	No	241.98 paper and cardboard	R3	M	Weighed	Abroad	Northwood Recycling Ltd, IRE/G282/15	Waterside ,Disley ,Stockport ,Cheshire SK12 2HW, united kingdom

Within the Country	20 01 01	No	756.1 paper and cardboard	R3	M	Weighed	Offsite in Ireland	Agnail,TFS Broker IRE/AG117/11	Ballymacken Ind. Estate Ballymacken Portlaoise Laois,Ireland CellMark AB Lilla Bommen 3C P O Box 11927 SE-404 39 Gothenburg Sweden Goudsesingel 178 ,3011 KD Rotterdam Netherlands,Netherlands,net herlands Embassy House ,Queen's Avenue ,Bristol BS8 1SB , United Kingdom Linwood Avenue ,East Kilbride ,Glasgow City G74 5NE ,United Kingdom Egerton House Towers Business Park Wilmslow Rd Didsbury M/CR M20 2DX ,United Kingdom
To Other Countries	20 01 01	No	509.22 paper and cardboard	R3	M	Weighed	Abroad	Cellmark,TFS Broker IRE/G180/11	
To Other Countries	20 01 01	No	23.94 paper and cardboard	R3	M	Weighed	Abroad	Ciparo,- FAILAND PAPER SERVICES LTD,IRE/G010/15 HIGHLANDER INTERNATIONAL(IRELAND) LTD,IRE/G034/15	
To Other Countries	20 01 01	No	25.22 paper and cardboard	R3	M	Weighed	Abroad		
To Other Countries	20 01 01	No	25.82 paper and cardboard	R3	M	Weighed	Abroad		
Within the Country	20 01 01	No	49.84 paper and cardboard	R3	M	Weighed	Offsite in Ireland	MLM (ACN Europe) Ltd ,TFS Broker IRE/G022/11	
Within the Country	20 01 08	No	4636.7 biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd WP-008-02	Lawlesstown , Clonmel ,Co. Tipperary ,Ireland Fassaroe,Bray,Co. Wicklow,,Ireland
Within the Country	20 01 38	No	21.96 wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	Greenstar Limited,W0053-03	
Within the Country	20 01 38	No	2067.5 wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Eirbloc,WFP-CK-11-0087-02 ormonde organics,WFP-WD- 10-0003-01	Lisarda,Cork,,Ireland Killowen ,Portlaw ,Co. Waterford ,Ireland
Within the Country	20 01 38	No	210.04 wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Davis Recycling at Hammond Lane Metal Co Ltd,WFP-CK-10-0077-02	Ringaskiddy,Co Cork,Ireland ClearCircle Metals (Limerick) Ltd
Within the Country	20 01 40	No	65.14 metals	R4	M	Weighed	Offsite in Ireland		
Within the Country	20 01 40	No	249.22 metals	R4	M	Weighed	Offsite in Ireland	Clearcircle,WCP-LK-08-589- 01	Ballysimon Road Limerick,,Ireland
Within the Country	20 01 40	No	1296.96 metals	R4	M	Weighed	Offsite in Ireland	Multi Metals,WFP-WW-09- 0014-01	Blessington,Co Wicklow Ireland
Within the Country	20 02 01	No	32.66 biodegradable waste	R3	M	Weighed	Offsite in Ireland	Bord na Mona Composting W0198-01	Kilberry Athy ,Co Kildare,-, Ireland
Within the Country	20 02 01	No	317.7 biodegradable waste	R3	M	Weighed	Offsite in Ireland	Enrich Environmental,WMP 2004/57	Kilcock Co. Kildare,,Ireland Drehid Landfill,,Carbury,Co Kildare,Ireland
Within the Country	20 03 01	No	23.2 mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Bord na Mona.,W0201-03	Carlanstown,,Duleek,Co Meath,Ireland
Within the Country	20 03 01	No	5968.78 mixed municipal waste	R1	M	Weighed	Offsite in Ireland	Indaver IWMF,W0167-02	Navan,-,county meath,Ireland
Within the Country	20 03 01	No	131.76 mixed municipal waste	R13	M	Weighed	Offsite in Ireland	midland waste,W0131-02	Ballymount Cross,Tallaght,Dublin 24,- Ireland
Within the Country	20 03 01	No	2064.88 mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Panda,W039-02	Drehid Landfill,,Carbury,Co Kildare,Ireland
Within the Country	20 03 03	No	769.2 street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Bord na Mona.,W0201-03	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland
Within the Country	20 03 03	No	1994.05 street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Ltd,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland
Within the Country	20 03 03	No	192.88 street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Knockharley Landfill Ltd,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland
Within the Country	20 03 07	No	1197.74 bulky waste	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Ltd,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland
Within the Country	20 03 07	No	8288.17 bulky waste	D5	M	Weighed	Offsite in Ireland	Greenstar Limited,W0053-03	Fassaroe,Bray,Co. Wicklow,,Ireland

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

APPENDIX 2

Procedures List



Doc. No.: Control	Revision No.: As Shown	Issue Date: As Shown
Approved By:	Malcolm Dowling – Group Environmental Manager Oliver Callan – Group H&S Manager	Page 1 of 2

Integrated Procedures - IP

IP-01	Document & Record Control Procedure	Rev 01, 28/04/14
IP-02	Health & Safety Risk Assessment Procedure	Rev 01, 28/04/14
IP-03	Environmental Aspects & Impacts Procedure	Rev 01, 28/04/14
IP-04	Legal & Regulatory Requirements Procedure	Rev 01, 28/04/14
IP-05	Objectives, Targets & Management Programmes Procedure	Rev 01, 28/04/14
IP-06	Competence, Training & Awareness Procedure	Rev 01, 28/04/14
IP-07	Communication & Consultation Procedure	Rev 01, 28/04/14
IP-08	Monitoring, Measurement & Improvement Procedure	Rev 01, 28/04/14
IP-09	Evaluation of Compliance Procedure	Rev 01, 28/04/14
IP-10	Non Conformances, Corrective/Preventive Actions Procedure	Rev 01, 28/04/14
IP-11	Internal Audit Procedure	Rev 01, 28/04/14
IP-12	Management Review Procedure	Rev 01, 28/04/14
IP-13	Control of Contractors/Visitors Procedure	Rev 01, 28/04/14
IP-14	Health & Safety & Environmental Monitoring	Rev 01, 28/04/14
IP-15	Emergency Preparedness & Response Procedure	Rev 01, 28/04/14
IP-16	Fire Prevention Procedure	Rev 01, 28/04/14
IP-17	Bin Washing Procedure	Rev 01, 28/04/14

Safety Procedures - SP

SP-01	Permit to Work Procedure	Rev 01, 28/04/14
SP-02	Maintenance & Calibration Procedure	Rev 01, 28/04/14
SP-03	Mobile Plant Procedure	Rev 01, 28/04/14
SP-04	Fork Truck Procedure	Rev 01, 28/04/14
SP-05	Operation of Fixed Plant Procedure	Rev 01, 28/04/14
SP-06	Lock Out / Tag Out Procedure	Rev 01, 28/04/14
SP-07	Health & Safety Notification Procedure	Rev 01, 28/04/14
SP-08	MSW Shredder routine Maintenance & Clearing of Blockages Procedure (SCGT)	Rev 01, 28/04/14
SP-09	Weighbridge & Tipping Procedure (SCGT)	Rev 01, 28/04/14
SP-10	Cleaning of Washing Bay (Greenogue)	Rev 01, 28/04/14



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Environmental Procedures - EP

EP-01	Office Waste & Energy Management Procedure	Rev 01, 28/04/14
EP-02	Decommissioning and Aftercare Procedure	Rev 01, 28/04/14
EP-03	Environment Communications Procedure	Rev 01, 28/04/14
EP-04	Waste Permits & Licences Procedure	Rev 01, 28/04/14
EP-05	Waste Acceptance Procedure	Rev 01, 28/04/14
EP-06	Unacceptable Waste Procedure	Rev 01, 28/04/14
EP-07	Waste & Material Storage Procedure	Rev 01, 28/04/14
EP-08	Waste Processing Procedure	Rev 01, 28/04/14
EP-09	Site Infrastructure Procedure	Rev 01, 28/04/14
EP-10	Nuisance Management Procedure (Site Specific)	(Site Specific) Rev 01, 28/04/14
EP-11	Civic Amenity Site Procedure	Rev 01, 28/04/14