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ANNUAL ENVIRONMENTAL REPORT

STARRUS ECO HOLDINGS LTD

GOREY BUSINESS PARK, GOREY

COUNTY WEXFORD

LICENCE NO. W0220-01

JANUARY 2014 – DECEMBER 2014

Prepared For: -

Starrus Eco Holdings Ltd, (Greenstar), Unit 6, Ballyogan Business Park, Ballyogan Road, Sandyford, Dublin 18.

Prepared By: -

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31st March 2015

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Project	Annual Environmental Report 2014					
Client		Starrus Eco Holdings Ltd. W0220-01				
Report No	Date	Status	Prepared By	Reviewed By		
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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 Gorey Business Park, Ramstown, Gorey, County Wexford. 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 F of the Waste Licence (Reg. No. W0220-01) 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 Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013².

¹ EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency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

2. SITE DESCRIPTION

2.1 Site Location & Description

The facility is located at Gorey Business Park, Ramstown Lower, Gorey, Co Wexford. The site encompasses $3,040 \text{ m}^2$ (0.7 acres) and is accessed by an internal road serving the Business Park.

There are two interconnected steel portal frame buildings, which encompass approximately $1,000m^2$ and comprise the waste transfer building. The remaining area of the site comprises open yard areas, paved with concrete, a weighbridge and associated weighbridge office. A facility office is maintained adjacent to the yard.

2.2 Waste Management Activities

The licence allows Greenstar to accept and process up to 30,000 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 8.1 of the licence.

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: -

- Household Waste (18,000 tonnes),
- Commercial & Industrial and Construction & Demolition (12,000 tonnes).

The key processes carried out at the facility include: -

- Segregation of C&I into different waste streams (paper, cardboard, glass, metal, green waste and wood) for further recovery at an appropriate facility
- Segregation of C&D into clean & dirty waste streams for further recovery purposes,
- Bulking up of domestic wastes (mixed municipal waste & dry mixed recyclables) for further recovery or disposal at an appropriate off-site facility.

Household Waste

Residual or black bin household waste arrives in refuse collection vehicles and is transferred from the vehicles into large bulk transporters for consignment to an appropriately licensed landfill. Source segregated household dry recyclables are 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 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.

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 2.1Existing Plant

No.	Plant	Model	Operational Capacity
1	Weighbridge	Avery Berkel	10m
1	Teleporter/forklift	JCB TLT30D	70 t/hr
1	Loader	JCB 426	70 t/hr

3. EMISSION MONITORING

Greenstar implements the environmental monitoring programme specified in the Licence to assess the significance of emissions from site activities. The programme specified in the licence includes groundwater, surface water (discharge from holding tank to percolation area), waste water removed off-site and noise monitoring. Surface water runoff is now directed to wastewater and has been incorporated into the waste water monitoring programme as agreed with the Agency. The monitoring locations are shown on Figure 3.1.

The monitoring programme is carried out in accordance with the frequency specified in the Licence. The monitoring results are submitted to the Agency at quarterly intervals. An overview of the monitoring results is presented in this Section, with summary tables included.

3.1 Waste Water Programme

Wastewater generated on site is directed to a holding tank located beneath the concrete yard as shown on Figure 3.1. The accumulated liquid is removed off-site as required to an appropriate wastewater treatment plant (WWTP) for treatment. The volume of wastewater removed in 2014 was 17.32 tonnes. The wastewater was tankered off site by Ormonde Organics Ltd to RILTA Environmental Ltd's WWTP in Greenogue Business Park, Rathcoole, Co. Dublin.

Waste water monitoring is carried out quarterly and the results are included on Table 3.1. Metals and organohalegens are required bi-annually and COD, ammonia and chloride are required quarterly. The results are similar to previous monitoring rounds and indicate the water is suitable for treatment at a wastewater treatment plant.

I able 3.1 Waste Water Results 2014						
Parameter	Units	Q1 '14	Q2 '14	Q3 '14	Q4 '14	
рН	pH Units	-	7.24	-	6.32	
Conductivity	mS/cm	-	4,500	-	2,818	
COD	mg/l	1,870	1280	605	1,260	
Total Ammonia	mg/l	16.24	365.27	13.87	110.46	
Chloride	mg/l	340	736	248	472	
Mercury	mg/l	-	< 0.000001	-	0.0006	
Arsenic	mg/l	-	0.007	-	0.008	
Boron	mg/l	-	0.239	-	2590	
Cadmium	mg/l	-	0.0006	-	0.003.4	
Chromium	mg/l	-	0.007	-	0.019	
Copper	mg/l	-	0.02	-	0.002	
Nickel	mg/l	-	< 0.2	-	0.025	
Selenium	mg/l	-	0.0000008	-	0.0007	
Zinc	mg/l	-	18	-	0.007	
VOC	μg/l	-	n.d.	-	n.d.	
MTBE	μg/l	-	1.6	-	n.d.	
1,1,2-trichloroethane	μg/l	-	3.3	-	n.d.	
Toluene	μg/l	-	1050	-	11	
Ethylbenzene	μg/l	-	83.4	-	2.4	
1,3,5-trimethylbenzene	μg/l	-	1.6	-	n.d.	
1,2,4-trimethylbenzene	µg/l	-	6.3	-	1.5	
p/m-Xylene	μg/l	-	288	-	6.3	
O-Xylene	μg/l	-	106	-	3.3	
SVOC	μg/l	-	n.d.	-	n.d	
Naphthalene	μg/l	-	2.1	-	n.d.	
Phenol	μg/l	-	182	-	16	
Carbon Disulphide	μg/l	-	5.27	-	40.9	
4-Methylphenol	μg/l	-	2,740	-	n.d.	
2-Methylphenol	μg/l	-	n.d.	-	177	
		•	•			

Table 3.1Waste Water Results 2014

n.d. – Not Detected

- Not Required

3.2 Ground Water Monitoring

Schedule C of the Licence requires annual groundwater monitoring. There is an on-site well (MW-1) slightly up-gradient of site activity, which was installed to provide both a potable and process water supply. Testing of the well indicated that it was not suitable for potable use and it is not used for this purpose, but is used for monitoring purposes. The well location is shown on Figure 3.1.

There are no emission limits or trigger levels set in the Licence. The Agency requested that groundwater trigger levels be prepared for this monitoring well. These were prepared and were submitted to the Agency for their approval on the 30th June 2008. The proposed trigger levels were not exceeded. The results are compared to the Interim Guideline Values (IGV) on groundwater quality published by the Agency. The Table also includes the Groundwater Regulations Threshold Value (GTV), which were introduced in 2010 (S.I. 9 of 2010).

The IGV represent typical background or unpolluted conditions; however levels higher than the IGV may occur naturally depending on the local geological and hydrogeological conditions. While the GTV are more appropriate for large scale abstraction wells used for potable supply, they can be used to assess the significance of contamination where present in non-potable groundwater supplies. Because GTVs have not been established for all of the parameters monitored, the relevant IGV was also used for comparative purposes where a GTV does not exist.

The levels of conductivity, sodium, sulphate and chloride all exceeded the respective IGV or GTV levels in both samples. Total and faecal coliforms were not detected. The levels are similar to those measured during previous monitoring events. The proposed trigger levels were not exceeded.

The groundwater monitoring results for 2014 are similar to those measured during previous monitoring events and the elevated levels are not related to current site activities. OCM carried out a hydrogeological assessment of the site which was submitted to the Agency in July 2011. The assessment confirmed that the site was formerly occupied by a tannery, where salt was used in the curing process. Tanneries are recognised sources of soil and groundwater contamination and the moderately-elevated levels of sodium, chloride, and conductivity detected are consistent with the historic site use, and are not related to the waste transfer activities. In correspondence from May 2012 the Agency has acknowledged that the report meets their requirements in terms of the level of assessment completed.

Parameter	Units	MW1 June 2014	Proposed Trigger Level	GTV	IGV
pН	pH Units	5.79	6.88	NE	6.5 – 9
Conductivity	mS/cm	3.500	7.84	0.800- 1.875	-
Ammoniacal Nitrogen	mg/l	0.02	-	0.065- 0.175	-
Chloride	mg/l	1,132	2579.38	24-187.5	-
Potassium	mg/l	5.3	6.84	NE	5
Sodium	mg/l	599	1631.25	150	-
Mercury	mg/l	< 0.00001	-	0.00075	-
Arsenic	mg/l	< 0.00037	-	0.0075	-
Boron	mg/l	< 0.050	-	0.75	-
Cadmium	mg/l	0.0006	-	0.00375	-
Chromium	mg/l	0.002	-	0.0375	-
Copper	mg/l	< 0.005	-	1.5	-
Lead	mg/l	0.0024	-	0.01875	-
Nickel	mg/l	0.010	-	0.015	-
Selenium	mg/l	0.00055	-	NE	NE
Zinc	mg/l	0.058	-	NE	0.1
TOC	mg/l	4.4	-	NE	NE
Fluoride	mg/l	0.1	-	NE	1
Sulphate	mg/l	199.6	-	187.5	-
Orthophosphate	mg/l	< 0.025	-	NE	0.03
Nitrate	mg/l	<2	-	37.5	25
Nitrite	mg/l	< 0.005	-	0.375	-
TON	mg/l	<2	-	NE	NE
Dissolved Oxygen	mg/l	4.7	-	NE	NAC
Total Cyanide	mg/l	0.00043	-	0.0375	-
Total Alkalinity	mg/l	116	-	NE	NAC
Total Phenols	mg/l	< 0.1	-	NE	NE
VOC	μg/l	<1	-	Various	NE
SVOC	μg/l	<5	-	Various	NE
Faecal Coliforms	cfu/100ml	<1	-	NE	0
Total Coliforms	cfu/100ml	<1	-	NE	0

Table 3.2Groundwater Monitoring Results – June 2014

3.3 Noise Monitoring

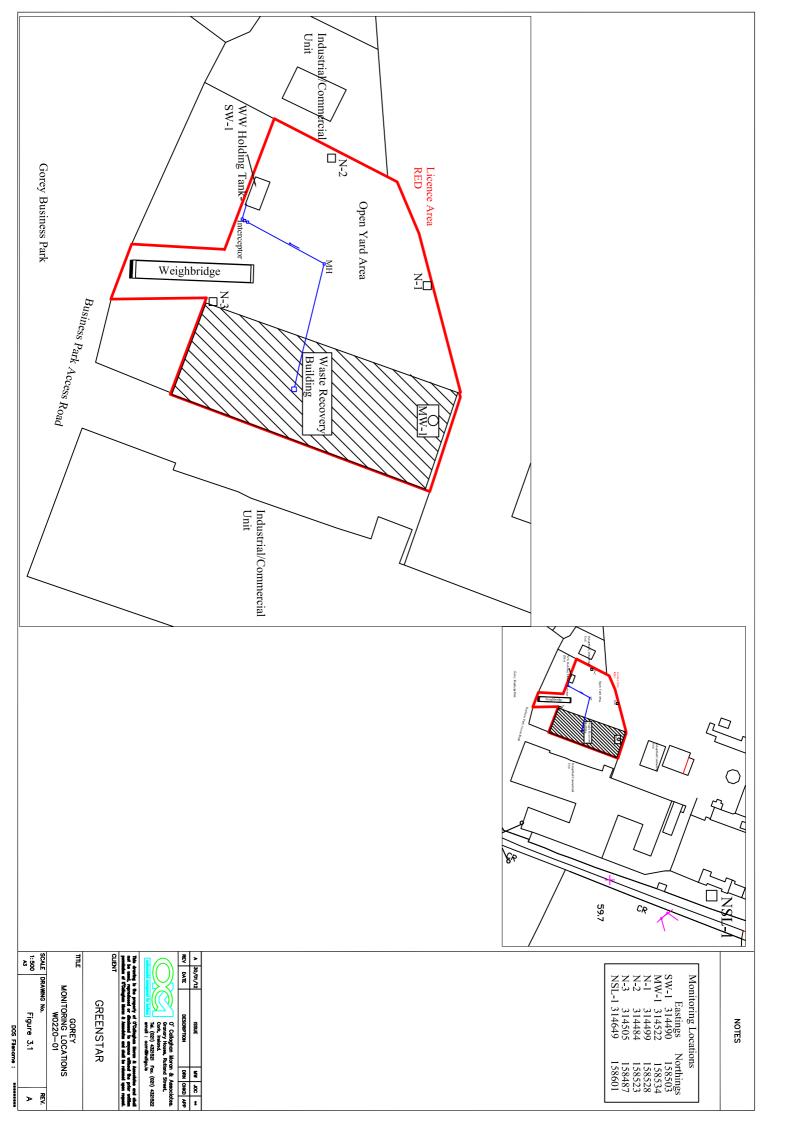
The annual noise survey was conducted in June 2014 at three offsite noise monitoring locations, N-1, N-2 and N-3. The survey concluded that the facility was fully compliant with the licence requirements. A summary of the noise results is shown on Table 3.3.

The licence sets a daytime noise limit of 55 dB with respect to offsite noise sensitive locations. At station N1, the only station not located within the boundaries of Gorey Business Park, no noise emissions were audible from the facility.

					Specific	
		LAeq 30	LAF10 30	LAF90 30	level*	
Station	Time	min dB	min dB	min dB	dB	Noise audible
N1	1516-1546	66	67	44	<44	No site emissions audible. Intermittent passing road traffic dominant when present. Distant traffic to NE also audible. Children playing at nearby dwellings audible throughout. Rustling trees at times significant. Birdsong. Construction plant (engines and reversing alarms) slightly audible in distance throughout much of interval. Train pass audible 1529. Lawnmower faintly audible in distance on breeze for most of interval.
N2	1435-1505	58	58	47	49-51	Loader at Greenstar facility audible at low level when in use, not significant. Power washer also audible 1449 to end interval. Sporadic trucks through weighbridge clearly audible. Noise emissions from surrounding business park dominant, including intermittent traffic, power hose cleaning operation at 50 m for first 8 min, intermittent forklift truck x2 at nearby premises, radio at nearby premises, voices. No other noise audible.
N3	1400-1430	54	57	43	54	No site emissions audible until 1415 when loader started up, in continuous use thereafter until end of interval, emissions clearly audible and dominant. From 1425, air conditioning cassette on nearby facade switched on, audible continuously at low level to end of interval, although loader remaining dominant. Intermittent vehicle movements around business park, including frequent forklift truck movements on external areas opposite central area. Occasional emissions from activity across park, including hammering, banging, etc. Bird song/calls and aircraft. Local car movement past N3 x2.

Table 3.3Noise Monitoring Results 2014

*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.



4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

Table 4.1 outlined the scheduled engineering works that were completed on site in 2014:

Description of Works	Completion Date
Remove old half of weighbridge	Q2
New loading pit mass concrete wall for loading ejector trailers	Q1
Fit automatic barrier at weighbridge at entrance to site	Q2

Table 4.1Scheduled Engineering Works 2014

4.2 Energy Efficiency

An energy audit was carried out in May 2008. The facility is not a significant consumer of resources. Table 4.2 presents an estimate of the resources used on-site during the reporting period.

Resources	Quantities 2012	Quantities 2013	Quantities 2014
Diesel	5,900 Litres	12,526 litres	13,818 litres
Odour Control Additive	190 Litres	350 litres	400 litres
Hydraulic Oil	100 Litres	280 litres	250 litres
Electricity	27,000 Units	43,780 units	54,765 Units

Table 4.2Estimates of Resources Used On-Site

4.3 Tank and Pipeline Integrity Testing

As per Condition 3.18.5 of the Licence tank and pipeline testing is to be carried out every three years. Testing of the pipeline was completed in March 2012 and was passed fit for purpose. The results were reported in last year's AER. Tank and Pipeline Integrity testing is scheduled to be completed in Q3 2015.

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 23,851.41 tonnes and the total amount consigned was 23,468.49 tonnes. 382.92 tonnes remained onsite at the end of the reporting period pending consignment off site. The waste received and consigned in 2014 is presented in Tables 5.1. For comparative purposes the amounts of waste received and consigned from 2007 to 2013 are presented in Table 5.2. All the wastes consigned from the site went to authorised recovery and disposal facilities and a copy of the relevant Facility Permit or Waste Licences retained on site for Agency inspection.

EWC	Description	Waste In	Waste Out
15 01 01	Paper and cardboard packaging	568.66	472.01
15 01 02	Plastic packaging	57.23	
15 01 04	Metallic packaging	0.48	
15 01 05	Composite packaging	3.4	
15 01 06	Mixed packaging	4,044.84	3,831.72
15 01 07	Glass Packaging		6.5
17 01 07	Concrete, Bricks, Tiles & Ceramics		448.96
17 09 04	Mixed C&D wastes	289.05	
19 12 07	Wood	9.95	
19 12 10	Combustible waste (refuse derived fuel)	34.64	
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes	0.2	
20 01 01	Paper and cardboard	11.379	
20 01 02	Glass		5.82
20 01 08	Biodegradable kitchen and canteen waste	8.18	
20 01 38	Wood	74.67	
20 01 39	Plastics	71.6	
20 01 40	Metals	4.18	4.70
20 03 01	Mixed municipal waste	14,864.099	16,406.51
20 03 03	Street-cleaning residues	656.856	655.04
20 03 07	Bulky waste	3,152	1637.23
	Total Received/Consigned	23,851.41	23,468.49
	Total Recovered		9,749.18
	Total Disposed		13,719.31
	Recovery Rate		41.61%

Table 5.1Waste Received & Consigned 2014

Table 5.2Previous Years Waste Received and Consigned

	2013	2012	2011	2010	2009	2008	2007
Total Received	25,618	21,756	11,496	11,651	13,477	15,885	18,979
Total Consigned	25,397	21,418	11,235	11,572	13,666	16,037	19,781
Total Recovery	13,024	6,664	4,027	4,214	3,614	7,421	9,229
Total Disposed	12,373	14,753	7,208	7,359	10,052	8,616	10,551
Recovery Rate	51.28%	31%	35.8%	36.41%	26.4%	46.28%	46.66%

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There were no incidents during the reporting period.

6.2 Register of Complaints

Greenstar maintains a register of complaints received in accordance with Condition 11.9 of the waste licence. No complaints were received in 2014 relating to operational issues or environmental performance.

7. ENVIRONMENTAL DEVELOPMENT & CONTROL

7.1 Environmental Management Programme Report

Greenstar have 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. The site was accredited to both Standards in June 2012 and this accreditation was retained following an audit in July 2014.

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 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 Schedule of Objectives 2014

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

7.1.2 Schedule of Objectives 2015

A schedule of targets and objectives for 2015 has been set by the management of the facility. These objectives are outlined in Table 7.2.

7.2 Management Structure

Details of the site management structure are given below.

Name:	Andrew Egan
Responsibility:	Depot Manager
Experience:	7 years experience
Name:	Andrew Rinkulis
Responsibility:	Operations Supervisor

Name:	Sean Doran
Responsibility:	Sales Support
Experience:	10 years' experience. FAS waste management course completed.
Name:	Thomas O'Leary
Responsibility:	Operative / Machinery / Loader / Driver
Experience:	9 years experience

Table 7.1Schedule of Objective and Targets 2014

No	Objective	Target	Timescale	Responsibility	Status
1	Infrastructure	Remove old half of weighbridge	Q2 2014	Site Management/EHS	Completed
2	Infrastructure	New loading pit mass concrete wall for loading ejector trailers	Q1 2014	Site Management/EHS	Completed
3	Infrastructure	Replace broken concrete in the yard area in front of shed main entrance	Q2 2014	Site Management/EHS	Q3 2015
4	Nuisance Control procedures	Continually review and assess all nuisance control procedures to ensure minimal impact on the surrounding area.	nuisance control procedures to ensure Ongoing S		Ongoing
5	Infrastructure	Fit automatic barrier at weighbridge at entrance to site	Q3 2014	Site Management/EHS	Completed
6	Development and adoption of Fire Prevention Procedure at the facility	Reduce risk of fire and enable early detection	Q2 2014	Site Management/EHS	Completed
7	Review of Emergency Response Plan to incorporate fire prevention procedure and new structure	Revision of Plan and additional training for site personnel	Q2 2014	Site Management/EHS	Completed
8	Achieve re-certification to ISO 14001 and OHSAS 18001 standard	3 year certification period expired in 2014	Q-3/Q-4 2014	Site Management/EHS	Completed
9	Develop and maintain traffic management plan at the facility	Review of all on-site traffic management	Q-2/Q-3 2014	Site Management/EHS	Completed
10	Environmental Training of Facility Staff	Update training presentation and ensure training of key managerial staff	Q-2/Q-3 2014	Site Management/EHS	Ongoing
11	Site Signage	Facility Notice Boards to be replaced to reflect new ownership	Q1 2014	Site Management/EHS	Completed

Table 7.2Schedule of Objective and Targets 2015

No	Objective	Target	Timescale	Responsibility
1	Infrastructure	Replace broken concrete in the yard area in front of shed main entrance	Q3 2015	Site Management
2	Nuisance Control procedures	Continually review and assess all nuisance control procedures to ensure minimal impact on the surrounding area.	Ongoing	Site Management
3	Environmental Training of Facility Staff	Update training presentation and ensure training of key managerial staff	Q2	Site Management / EHS
4	Infrastructure	Installation of early warning (Aspirational) Fire Detection system	Q3 2015	Site Management / EHS
5	Infrastructure	Tank and Pipeline Integrity Testing	Q2 2015	Site Management / EHS
6	Bund and Tank Integrity Testing	As per licence requirements. Submit to EPA	Q2	Site Management / EHS
7	Track Energy & Resource Consumption	Summarise energy and resource usage on a quarterly basis with a view to reducing consumption	Ongoing	Site Management / EHS
8	Review of Emergency Response Plan to incorporate fire prevention system	ERP to be updated and appropriate training provided	Q2	Site Management / EHS
9	Document a Preventative Maintenance (PM) plan for inspection and cleaning of plant and equipment wrt fire	Incorporate into existing Site Inspection Database (EF-10A) and site specific PM plans	Q2	Site Management / EHS
10	Document a Preventative Maintenance (PM) plan for inspection of hardstand and drainage infrastructure on site	Incorporate into existing Site Inspection Database (EF-10A)	Q2	Site Management / EHS
11	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 through additional training	Q2/Q3	EHS / Finance / WIMS

7.3 Communications Programme

Condition 2.2.2.7 requires the establishment of a Communications Programme. Greenstar is committed to setting the standard in waste management and ensuring environmental compliance in all operations. In addition, Greenstar's updated Environmental and Health & Safety Policy makes a specific commitment to ensuring that the policy itself and records are available to the public and interested parties.

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.

7.4 Nuisance Control

Greenstar has contracted Prokill Ireland South East Ltd (PSE) to carry out vermin inspections at the facility. PSE Ltd visit the facility monthly and inspect for vermin and inspect and maintain the 9 bait boxes and 4 mice boxes on the site. The facility has not had any problem with fly infestations, but should a problem occur, this can be dealt with by PSE Ltd on a call out basis.

7.5 Water Demand

The only water used on the site is for sanitary purposes in the toilets (2 No. staff), the canteen and occasionally for the odour suppression system. The volume of odour suppressants used in 2014 was 400 litres. The volume of water used at the facility was 6,500 litres in 2014.

7.6 Waste Generated On-site

The facility is manned by two full-time staff and therefore does not generate a large amount of canteen or office waste. All waste generated is source separated and removed off site for recycling or disposal.

7.7 Pollution Emission Register

The Pollution Emission Register (PER) has been replaced by the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006. A copy of the information submitted to the Agency via the web-based data reporting system is included in Appendix 1.

7.8 Financial Provision & Measures to Minimise Potential Environmental Damage

A Decommissioning Management Plan (DMP) and Environmental Liabilities Risk Assessment (ELRA) including Financial Provision (FP) were submitted to the Agency in 2013 as part of the transfer of the licence which occurred in Q1 2014. Both the DMP and ELRA have been approved by the Agency.

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

8. OTHER REPORTS

No other reports were requested by the Agency for inclusion in the AER during the reporting period.

APPENDIX 1

European Pollutant Release and Transfer Register

Version 1.1.18



| PRTR# : W0220 | Facility Name : Starrus Eco Holdings Limited (Gorey) | Filename : W0220_2014.xls | Return Year : 2014 |

Guidance to completing the PRTR workbook

AER Returns Workbook

REFERENCE YEAR 2014

1. FACILITY IDENTIFICATION

Parent Company Name	Starrus Eco Holdings Limited
Facility Name	Starrus Eco Holdings Limited (Gorey)
PRTR Identification Number	W0220
Licence Number	W0220-01
	-

Classes of Activity

Activity No. class_name - Refer to PRTR class activities below

Address 1	Ramstown
Address 2	Gorey
Address 3	
Address 4	
	Wexford
Country	Ireland
Coordinates of Location	-6.30814 52.6661
River Basin District	IESE
NACE Code	
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Malcolm Dowling
AER Returns Contact Email Address	
AER Returns Contact Position	Environmental Executive
AER Returns Contact Telephone Number	01-2947949
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	4
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 20	02)
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

Guidance on waste imported/accepted onto site

| PRTR# : W0220 | Facility Name : Starrus Eco Holdings Limited (Gorey) | Filename : W0220_2014.xls | Return Year : 2014 | Page 1 of 2

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

4.1 RELEASES TO AIR Link to previous years emissions data

| PRTR# : W0220 | Facility Name : Starrus Eco Holdings Limited (Gorey) | Filename : W0220_2014.xls | Return Year : 2014 |

31/03/2015 14:02

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

		Please enter all quantities in this section in KGs							
POLLUTANT			MET	HOD		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 00	

* 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								
PO		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							
PO		METHOD	QUANTITY							
			Method Used							
Pollutant No.	Name	M/C/E Method Co	ode 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			

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

4.	2 RELEASES TO WATERS	Link to previous years emissions data	PRTR# :	W0220 Facility Nar	me : Starrus Eco Holdings Limited (G	orey) Filename : W0220_	2014.xls	8 Return Year : 2014		31/03/2015 14:02		
S	ECTION A : SECTOR SPECIFIC PRTR PO	LLUTANTS	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 t									
	RELEASES TO WATERS			Please enter all quantities in this section in KGs								
	PO	LLUTANT				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 WATERS			Please enter all quantities in this section in KGs						
POLLUTANT						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 WATERS		Please enter all quantities in this section in KGs							
POLLUTANT					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		

4.3 RELEASES TO WASTEWATER OR SEWER

| PRTR# : W0220 | Facility Name : Starrus Eco Holdings Limited (Gorey) | Filename : W0220_2014.: 31/03/2015 14:02

SECTION A : PRTR POLLUTANTS

OFFSITE TRANS	FER OF POLLUTANTS DESTINED FOR WASTE-W	ATER TRE	EATMENT OR SEWER		Please enter all quantities in this section in KGs				
POLLUTANT			METH	OD	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 00	

Link to previous years emissions data

* 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 TRA	NSFER OF POLLUTANTS DESTINED FOR WASTE-V	VATER TRE	ATMENT OR SEWER		Please enter all quantities in this section in KGs				
POLLUTANT			METHO	DD	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	1	0.0 0.0) 0.0	

4.4 RELEASES TO LAND

Link to previous years emissions data | PRTR# : W0220 | Facility Name : Starrus Eco Holdings Limited (Gorey) | Filename : W0220_2014.xls | Return Year : 2014 |

31/03/2015 14:03

SECTION A : PRTR POLLUTANTS

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

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

AER Returns Workbook

			Quantity (Tonnes per Year)		Waste		Method Used		Haz Waste Name and Licence/Permit No of Next Destination Facility Non Haz Waste Name and Licence/Permit No of Recover/Disposer	<u>Haz Waste</u> : Address of Next Destination Facility <u>Non Haz Waste</u> : 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)
	European Waste				Treatment			Location of				
Transfer Destination	Code	Hazardous	i	Description of Waste	Operation	M/C/E	Method Used	Treatment		Fassaroe,Bray,,Co		
Vithin the Country		No		paper and cardboard packaging	R3	М	Weighed		Greenstar Bray,W0053-03	Wicklow, Ireland Merrywell Industrial Estate, Ballymount Road Lower, Ballymount, Dublin		
Vithin the Country	15 01 06	No	353.8	mixed packaging	R13	м	Weighed	Offsite in Ireland	Panda,W0238-01	22, Ireland Robinhood Industrial Estate, Robinhood		
Vithin the Country	15 01 06	No	22.82	mixed packaging	R13	м	Weighed	Offsite in Ireland	Oxigen Environmental	Road,Ballymount,Dublin 22,Ireland		
, i i i										Fassaroe,Bray,.,Co		
Within the Country	15 01 06	No	3455.1	mixed packaging	R13	М	Weighed	Offsite in Ireland	Greenstar Bray, W0053-03 Gannon Eco, WFP-WM-2009-	Wicklow, Ireland Ballinagore Co		
Within the Country	15 01 07	No		glass packaging mixture of concrete, bricks, tiles and	R5	М	Weighed	Offsite in Ireland	0007-01	Westmeath,.,.,Ireland		
Within the Country	17 01 07	No	448.96	ceramics other than those mentioned in 17 01 06	R13	М	Weighed	Offsite in Ireland	Chi Environmental Ltd.,WMP 023/2007	Kilkenny, Ireland		
Within the Country	20 01 02	No	5.82	glass	R5	м	Weighed	Offsite in Ireland	Gannon Eco,WFP-WM-2009- 0007-01	Ballinagore,Co. Westmeath,,Ireland		
	20 01 02		0.02	giado								
Within the Country		No		metals	R4	М	Weighed		Clearcircle Metals (Limerick) Ltd,WFP-LKC-11-0001-01	Ballysimon Road,Limerick,.,,Ireland Enniscorthy,.,,Wexford,Irela		
Within the Country	20 01 40	No	4.02	metals	R4	М	Weighed	Offsite in Ireland	Molloys,WP/08/14B	nd Tullamore,Co.		
Within the Country	20 03 01	No		mixed municipal waste	D5	М	Weighed	Offsite in Ireland	AES Tullamore,W0104-03 Bord na Mona Drehid	Offaly,.,.,Ireland		
Within the Country	20 03 01	No	1455.26	mixed municipal waste	D5	М	Weighed	Offsite in Ireland	Landfill,W0201-03 Greenstar	Carbury,,Co Kildare,Ireland Ballynagran		
	20 03 01	No		mixed municipal waste	D5	M M	Weighed	Offsite in Ireland Offsite in Ireland	Ballynagran,W0165-02	Landfill,,Wicklow,Ireland Carranstown,Duleek,.,Co. Meath,Ireland		
Within the Country	20 03 01	No		mixed municipal waste	R13	IVI	Weighed		Knockharley Landfill	Knockharley,Co.		
Within the Country	20 03 01	No	398.64	mixed municipal waste	D5	М	Weighed	Offsite in Ireland	Limited, W0146-02 AES Midland Waste, W0131-	Meath,.,.,ireland		
Within the Country	20 03 01	No	579.86	mixed municipal waste	R13	М	Weighed	Offsite in Ireland	02	Navan,Co. Meath,.,.,Ireland		
Within the Country	20 03 01	No	535.2	mixed municipal waste	R13	М	Weighed	Offsite in Ireland	O' Toole Composting,WFP- CW-10-0003-01	Ballintrane,Fenagh,Co Carlow,.,Ireland Robinhood Industrial Estate,Robinhood		
Within the Country	20 03 01	No	556.48	mixed municipal waste	R13	м	Weighed	Offsite in Ireland	Oxigen Environmental Ltd.,W0152-03	Road,Ballymount,Dublin 22,Ireland Merrywell,Ballymount rd		
Within the Country	20 03 01	No	1267.53	mixed municipal waste	R13	М	Weighed	Offsite in Ireland	Ballymount,W0238-01	Ir,Dublin12,.,Ireland		
Within the Country	20 03 01	No	24.51	mixed municipal waste	R13	М	Weighed	Offsite in Ireland	Greenstar Bray,W0053-03	Fassaroe,Bray,.,Co Wicklow,Ireland Six Cross Roads		
Within the Country	20 03 01	No	206.26	mixed municipal waste	R13	М	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd (Waterford Baler),W0116-02 Bord na Mona Drehid	,Butlerstown ,Waterford,.,Ireland		
Within the Country	20 03 03	No	79.26	street-cleaning residues	D5	М	Weighed	Offsite in Ireland	Landfill,W0201-03	Carbury,.,,,Co Kildare,Ireland		
Within the Country	20 03 03	No	575.78	street-cleaning residues	D5	М	Weighed	Offsite in Ireland	Greenstar Ballynagran,W0165-02 Thorntons Waste	Ballynagran Landfill,,Wicklow,Ireland kilmainhamwood,Kells,Meath		
Vithin the Country	20 03 07	No	40.4	bulky waste	R13	М	Weighed	Offsite in Ireland	Diposal,W0195-01	,.,Ireland Fassaroe,Bray,.,Co		
Vithin the Country	20 03 07	No	1554.15	bulky waste	R13	м	Weighed	Offsite in Ireland	Greenstar Bray,W0053-03	Wicklow, Ireland		

			Quantity (Tonnes per Year)			Method Used		Haz Waste : Name and Licence/Permit No of Next Destination Facility <u>Non</u> <u>Haz Waste</u> : Name and Licence/Permit No of Recover/Disposer	<u>Haz Waste</u> : Address of Next Destination Facility <u>Non Haz Waste</u> : Address of Recover/Disposer	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
Transfer Destination	European Waste Code	Hazardous	Description of Waste	Waste Treatment Operation		Method Used	Location of Treatment			
Within the Country	20 03 07	No	42.68 bulky waste y double-clicking the Description of Waste then click the delete button	R13	М	Weighed	Offsite in Ireland	Ballymount,W0238-01	Merrywell,Ballymount rd Ir,Dublin12,.,Ireland	

APPENDIX 2

Procedures List



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

Integrate	ed 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 Pro	cedures - 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



greenstar setting the standard		Procedure Listing
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Approved By:	Malcolm Dowling – Group Environmental Manager	Page 2 of 2
	Oliver Callan – Group H&S Manager	

Environme	ental 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