Unit 15 Melbourne Business Park Model Farm Road Cork



E:info@ocallaghanmoran.com www.ocallaghanmoran.com T: 021 434 5366

ANNUAL ENVIRONMENTAL REPORT

STARRUS ECO HOLDINGS LTD

GOREY BUSINESS PARK, GOREY

COUNTY WEXFORD

LICENCE NO. W0220-01

JANUARY 2015 – DECEMBER 2015

Prepared For: -

Starrus Eco Holdings Ltd, (Greenstar), Fassaroe, Bray, Co. Wicklow

Prepared By: -

O' Callaghan Moran & Associates, Unit 15 Melbourne Business Park, Model Farm Road, Cork.

1st April 2016

O'Callaghan Moran & Associates Registration/VAT Number: 8272844U

Project	Annual Environmental Report 2015							
Client	Starrus Eco W0220-01	Starrus Eco Holdings Ltd. W0220-01						
Report No	Date	Status	Prepared By	Reviewed By				
150480406	29/03/2016	Draft	Martina Gleeson PhD	Jim O'Callaghan MSC				
	01/04/2016	Final	Martina Gleeson PhD	Jim O'Callaghan MSC				

TABLE OF CONTENTS

PAGE

1.	INTRODUCTION	1
2.	SITE DESCRIPTION	2
2 2	.1 SITE LOCATION & DESCRIPTION	2 2 2 3
3.	EMISSION MONITORING	4
3 3 3	.1 WASTE WATER PROGRAMME .2 GROUND WATER MONITORING	4 6 7
4.	SITE DEVELOPMENT WORKS	10
4 4 4	 SPECIFIED ENGINEERING WORKS ENERGY EFFICIENCY TANK AND PIPELINE INTEGRITY TESTING. 	10 10 11
5.	WASTE RECEIVED AND CONSIGNED FROM THE FACILITY	12
6.	ENVIRONMENTAL INCIDENTS AND COMPLAINTS	14
6 6	.1 INCIDENTS	14 14
7.	ENVIRONMENTAL DEVELOPMENT & CONTROL	15
7 7 7 7 7 7 7 7 7	 ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT	 15 15 15 18 18 19 19 19 19 20 20
8.	OTHER REPORTS	21

- APPENDIX 1 European Pollutant Release and Transfer Register
- APPENDIX 2 Procedures List

1. INTRODUCTION

This is the 2015 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 2015 to the 31st December 2015. 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 Industrial Emissions (IE) 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 Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013².

¹ EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency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 3,040m² (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 comprises open yard areas, paved with concrete, a weighbridge and associated weighbridge office. A facility office is 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 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 includes groundwater, waste water removed off-site and noise monitoring.

The monitoring locations are shown on Figure 3.1. The monitoring is carried out in accordance with the frequency specified in the Licence. The results are submitted to the Agency at quarterly intervals. An overview of the monitoring results is presented in this Section, with summary tables provided.

3.1 Waste Water Programme

Wastewater is directed to a holding tank located beneath the concrete yard as shown on Figure 3.1. The accumulated liquid is removed as required to an off-site wastewater treatment plant (WWTP) for treatment. The volume removed in 2015 was 29.76 tonnes. It was tankered by Ormonde Organics Ltd to RILTA Environmental Ltd WWTP in Greenogue Business Park, Rathcoole, Co. Dublin.

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

Parameter	Units	Q1 2015	Q2 2015	Q3 2015	Q4 2015
pH	pH Units	-	6.75	-	6.04
Conductivity	mS/cm	-	4,420	-	1,613
COD	mg/l	2,840	2,340 1,740		1,250
Total Ammonia	mg/l	210.53	5.17	450.20	24.67
Chloride	mg/l	754	122	789.6	97.9
Mercury	mg/l	-	0.0003	-	< 0.001
Arsenic	mg/l	-	0.003	-	< 0.0025
Boron	mg/l	-	0.888	-	0.557
Cadmium	mg/l	-	<0.2	-	0.0006
Chromium	mg/l	-	0.004	-	0.0185
Copper	mg/l	-	6	-	< 0.007
Nickel	mg/l	-	< 0.02	-	0.03
Selenium	mg/l	-	0.0028	-	< 0.003
Zinc	mg/l	-	<0.2	-	0.046
VOC	μg/l	-	n.d. except below		n.d. except below
Toluene	μg/l	-	2.7	-	8.7
Ethylbenzene	μg/l	-	2.7	-	1.4
Dichloromethane	μg/l	-	38.6	-	
1,2,4-trimethylbenzene	μg/l	-	1.4	-	
p/m-Xylene	μg/l	-	8.7	-	5
O-Xylene	μg/l	-	3.9	-	2.4
SVOC	µg/l	-	n.d. except below	-	n.d. except below
Phenol	μg/l	-	253	-	21
Carbon Disulphide	μg/l	-	3.8	-	n.d.
4-Methylphenol	μg/l	-	6,810	-	135
Phenathrene	μg/l	-	n.d.	-	1.5
Diethyl phthalate	μg/1	-	18.8	-	10
Dimethyl phthalate	μg/l	-	n.d.	-	15
Bis(2-ethlyhex) phthalate	μg/1	-	n.d.	-	25

Table 3.1Waste Water Results 2015

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 exceeded both the respective IGV and GTV levels. The levels of pH, zinc and potassium exceeded the IGV (no GTV set). The levels are similar to those measured during previous monitoring events. The proposed trigger levels were not exceeded.

The groundwater monitoring results for 2015 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 May 2015	Proposed Trigger Level	GTV	IGV
pH	pH Units	5.81	6.88	NE	6.5 – 9
Conductivity	mS/cm	3.120	7.84	0.800-1.875	1.000
Ammoniacal Nitrogen	mg/l	< 0.01	-	0.065-0.175	0.15
Chloride	mg/l	1053.78	2579.38	24-187.5	30
Potassium	mg/l	5.5	6.84	NE	5
Sodium	mg/l	532	1631.25	150	150
Mercury	mg/l	0.00002	-	0.00075	0.001
Arsenic	mg/l	0.00016	-	0.0075	0.01
Boron	mg/l	0.018	-	0.75	1
Cadmium	mg/l	0.0025	-	0.00375	0.005
Chromium	mg/l	0.001	-	0.0375	0.03
Copper	mg/l	0.007	-	1.5	0.03
Lead	mg/l	0.0102	-	0.01875	0.01
Nickel	mg/l	0.0066	-	0.015	0.02
Selenium	mg/l	0.0005	-	NE	NE
Zinc	mg/l	0.351	-	NE	0.1
TOC	mg/l	3.75	-	NE	NE
Fluoride	mg/l	0.12	-	NE	1
Sulphate	mg/l	204.2	-	187.5	200
ortho Phosphate	mg/l	< 0.025	-	NE	0.03
Nitrate	mg/l	<2	-	37.5	25
Nitrite	mg/l	0.02	-	0.375	0.1
TON	mg/l	<2	-	NE	NE
Dissolved Oxygen	mg/l	6.5	-	NE	NAC
Total Cyanide	mg/l	< 0.0003	-	0.0375	0.01
Total Alkalinity	mg/l	112	-	NE	NAC
Total Phenols	mg/l	0.000105	-	NE	NE
VOC	μg/l	<1	-	Various	NE
SVOC	μg/l	<5	-	Various	NE

Table 3.2Groundwater Monitoring Results – May 2015

3.3 Noise Monitoring

The annual noise survey was conducted in August 2015 at three offsite noise monitoring locations, N1, N2 and N3. 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.

Station	Date	Time	Wind vector	LAeq 30 min dB	L _{AF10} 30 min dB	LAF90 30 min dB	Specific L _{Aeq 30 min} dB		
	13.08.15	1403-	-	67	70	41	<<41		
N1		1433							
	Site: No emi	ssions audible.		•					
	Extraneous:	Passing road	raffic frequen	t, and dominant.	Distant traffic als	so audible. No em	issions audible		
	from busines	s park. Bird so	ng/calls, aircr	aft and lightly r	ustling vegetation		1		
	13.08.15	1233-	+	58	59	47	50		
		1303							
N2	Site: Skip truck idling outside site entrance continuously dominant until 1247. Ejector trailer donkey engine								
	in yard dominant 1248 for 1 min. Loader audible in yard at low level from 1250.								
	Extraneous: Intermittent vehicle movements through surrounding business park dominant when present								
	Forklift trucks (electric x1, gas (noisy) x1) in occasional use at nearby premises dominant when present.						when present.		
	Radio at premises also continuously clearly audible. Occasional hammering at 1-200 m clearly audible.								
	13.08.15	1200-	N/A	58	60	44	57		
		1230							
N3	Site: Loader	dominant whe	n in occasional	use typically fo	or several minutes	at a time although	n in continuous		
110	use from 121	9. Sporadic tr	uck movemen	its and tipping o	perations also aud	ible.	r in continuous		
	Extraneous:	Air condition	ing units at 20	m (no direct lin	e of sight) audible	e at low level cont	inuously when		
	cutting in and	d out. Intermitt	ent vehicle mo	ovements throug	h business park a	udible at low level	. Forklift truck		
	movements x	2 passing mic	rophone. Loca	al birdsong.					

Table 3.3Noise Monitoring Results 2015

Specific L_{Aeq}: Level considered attributable to source under consideration, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, spectral statistics and near field correction if applicable. **Audibility scale**: Inaudible; faintly audible; slightly audible; audible at low level; quite audible; clearly audible; dominant; intrusive; excessive.



4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

Table 4.1 outlined the scheduled engineering works that were completed on site in 2015. The proposed schedule of engineering works to be carried out in 2016 including estimated completion dates are shown on Table 4.2

Table 4.1Scheduled Engineering Works 2015

Description of Works	Completion Date
Fire Detection System	3 rd April 2015

Table 4.2Scheduled Engineering Works 2016

Description of Works	Proposed Date Completed	
Concrete repairs	Q3	
Roller Doors	Q1	
CCTV monitoring system	Q1	
External boundary wall	Dense lest en Diese ins	
subject to planning	Dependant on Planning	
permission	Permission	
Intercom system	Q3	

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.

Table 4.2 Estimates of Resources Used On-Site

Resources	2012	2013	2014	2015
Diesel	5,900 Litres	12,526 litres	13,818 litres	18,886 litres
Odour Control Additive	190 Litres	350 litres	400 litres	550 litres
Hydraulic Oil	100 Litres	280 litres	250 litres	125 litres
Electricity	27,000 Units	43,780 units	54,765 Units	44,887 kWh

C:\15\048_Greenstar\04_Gorey\AER\150480406.Doc

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 was completed in December 2015 and was passed fit for purpose. Bund integrity testing was also carried out in December 2015 and all bunds passed fit for purpose. Testing will be carried out again in 2018. The reports are retained at the facility for Agency inspection.

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 2015 is presented in the PRTR submission in Appendix 1.

The total quantity of waste received was 29,975.41 tonnes and the total amount consigned was 29,952.49 tonnes. 23 tonnes remained onsite at the end of the reporting period pending consignment off site. The waste received and consigned in 2015 is presented in Tables 5.1. For comparative purposes the amounts of waste received and consigned from 2007 to 2014 are presented in Table 5.2. All the wastes consigned from the site went to authorised recovery and disposal facilities and copies 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	560.61	511.66
15 01 02	Plastic packaging	190.66	11.24
15 01 05	Composite packaging	4.88	
15 01 06	Mixed packaging	4,551.644	4,572.26
17 01 07	Concrete, Bricks, Tiles & Ceramics		225.98
17 05 04	C&D Mixed	1.66	
17 09 04	Mixed C&D wastes	291.69	
19 12 07	Wood	4.82	
19 12 09	C&D Mixed	28.22	
19 12 10	Combustible waste (refuse derived fuel)	22	
20 01 01	Paper and cardboard	8.904	
20 01 08	Biodegradable kitchen and canteen waste	7.92	
20 01 38	Wood	101.57	
20 01 39	Plastics	0.2	
20 01 40	Metals	5.42	16.54
20 03 01	Mixed municipal waste	21,100.021	22,522.998
20 03 03	Street-cleaning residues	775.38	661.12
20 03 07	Bulky waste	2,256.39	1,430.691
	Total Received	29,975.409	
	Total Consigned		29,952.489
	Total Recovered		9,862.651
	Total Disposed		20,089.838
	Recovery Rate		67.07%

Table 5.1Waste Received & Consigned 2015

Table 5.2Previous Years Waste Received and Consigned

	2014	2013	2012	2011	2010	2009	2008	2007
Total Received	23,851	25,618	21,756	11,496	11,651	13,477	15,885	18,979
Total Consigned	23,469	25,397	21,418	11,235	11,572	13,666	16,037	19,781
Total Recovery	9,749	13,024	6,664	4,027	4,214	3,614	7,421	9,229
Total Disposed	13,719	12,373	14,753	7,208	7,359	10,052	8,616	10,551
Recovery Rate	41.61%	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. One complaint regarding rodents was received in February 2016 relating to vermin in August 2015.

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 2015 (Table 7.1), as well as the proposed Objectives and Targets for 2016 (Table 7.2) are presented below.

7.1.1 Schedule of Objectives 2015

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

7.1.2 Schedule of Objectives 2016

A schedule of targets and objectives for 2016 has been set by the management of the facility. These objectives are outlined in Table 7.2.

Table 7.1Schedule of Objective and Targets 2015

No	Objective	Target	Timescale	Responsibility	Status
1	Infrastructure	Replace broken concrete in the yard area in front of shed main entrance	Q3 2015	Site Management	Not Done
2	Nuisance Control procedures	Continually review and assess all nuisance control procedures to ensure minimal impact on the surrounding area.	Ongoing	Site Management	Recommendations made throughout 2015. Will be continued in 2016
3	Environmental Training of Facility Staff	Update training presentation and ensure training of key managerial staff	Q2	Site Management / EHS	Completed
4	Infrastructure	Installation of early warning (Aspirational) Fire Detection system	Q3 2015	Site Management / EHS	Completed Q2 2015
5	Infrastructure	Tank and Pipeline Integrity Testing	Q2 2015	Site Management / EHS	Completed Q4
6	Bund and Tank Integrity Testing	As per licence requirements. Submit to EPA	Q2	Site Management / EHS	Completed Q4
7	Track Energy & Resource Consumption	Summarise energy and resource usage on a quarterly basis with a view to reducing consumption	Ongoing	Site Management / EHS	Ongoing
8	Review of Emergency Response Plan to incorporate fire prevention system	ERP to be updated and appropriate training provided	Q2	Site Management / EHS	Completed
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	On going, site specific PM plans currently under review
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	Completed
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	Completed

No	Objective	Target	Timescale	Responsibility
1	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
2	Waste storage practices	Review waste storage practices on each site to ensure that they are in line with licence conditions, fire prevention and insurance recommendations	Q2	Site Management/EHS
3	Emergency response procedures - ER pack update	Review the Emergency Response Pack on each site and ensure that all information & equipment required in case of an emergency is available. Confirm that relevant staff training adequately addresses.	Q2	Site Management/EHS
4	CRAMP, ELRA & Financial Provision	CRAMP, ELRA & Financial Provision to be reviewed	Q2/Q3	EHS team
5	Waste acceptance, classification & records	EWC training for all weighbridge ops. Centralisation of all licences & permits inc NWCPs for hauliers.	Q2/Q3	EHS team
6	Replace boundary wall (subject to PP)	Planning application lodged for replacement boundary wall	Q1/Q2	Site Management/EHS

Table 7.2Schedule of Objective and Targets 2016

7.2 Management Structure

Details of the site management structure are given below.

Name:	Andrew Egan
Responsibility:	Depot Manager
Experience:	8 years experience. FÁS waste management course completed in 2015.
Name:	Andrew Rinkulis
Responsibility:	Operations Supervisor
Experience:	FÁS waste management course completed. 15 years waste management experience.
Name:	Sean Doran
Responsibility:	Sales Support
Experience:	11 years experience. FÁS waste management course completed.
Name:	Thomas O'Leary
Responsibility:	Operative / Machinery / Loader / Driver
Experience:	10 years experience.

7.2.1 Staff Training

Environmental training is carried out for any new staff employed at the facility as required. Andrew Egan completed the FÁS Waste Management Course in 2015. Copies of all training records are held in the facility office.

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 2015 was 550 litres.

7.6 Waste Generated On-site

All waste generated is source separated and removed off site for recycling or disposal.

7.7 European Pollutant Release and Transfer Register

A copy of the EPRTR return 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 1.1.19



| PRTR# : W0220 | Facility Name : Starrus Eco Holdings Limited (Gorey) | Filename : W0220_2015.xls | Return Year : 2015 |

Guidance to completing the PRTR workbook

PRTR Returns Workbook

REFERENCE YEAR 2015

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

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	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	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	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
50.1	General
5(c)	Installations for the disposal of non-hazardous waste
50.1	General
3. SOLVENTS REGULATIONS (S.I. No. 543 of 200	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 : Gorey 2015 tonnage.xlsx | Return Year : 2015 | Page 1 of 2

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

4.1 RELEASES TO AIR Link to previous years emissions data

| PRTR# : W0220 | Facility Name : Starrus Eco Holdings Limited (Gorey) | Filename : W0220_2015.xls | Return Year : 2015 |

29/03/2016 12:26

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

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 Name : Starrus Eco Holdings Limited (Gorey) Filename : W0220_2015.xls Return Year : 2015 29/03/201								
SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS			mbient monitoring	of storm/surface water or ground	vater, conducted as part of	your licence requirements,	should NOT be submitted unde	r AER / PRTR Reporting as		
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 B : REMAINING PRTR POLLUTANTS

RELEASES TO WATERS P						s in this section in k	Gs	
POI						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						s in this section in KG	is	
POL						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_2015. 29/03/2016 12:27

SECTION A : PRTR POLLUTANTS

OFFSITE TRAN	Please enter all quantities	in this section in KG	is						
POLLUTANT			М	ETHOD	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

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 TRAN	SFER OF POLLUTANTS DESTINED FOR WASTE-W	Please enter all quantities in this section in KGs						
POLLUTANT			MET	HOD	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

4.4 RELEASES TO LAND

Link to previous years emissions data | PRTR# : W0220 | Facility Name : Starrus Eco Holdings Limited (Gorey) | Filename : W0220_2015.xls | Return Year : 2015 |

29/03/2016 12:27

SECTION A : PRTR POLLUTANTS

RELEASES TO LAND Ple						Please enter all quantities in this section in KGs			
POLLUTANT			METHO	D	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/Ye	ar	
					0.0	1	0.0	0.0	

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

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

RELEASES TO LAND PIG					Please enter all quantities	in this section in KGs	
POLLUTANT			METHO	D		QUANTITY	
		Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0	0 00

29/03/2016 12:27

			Please enter a	all quantities on this sheet in Tonnes								0
			Quantity						Haz Waste : Name and Licence/Permit No of Next Destination Facility <u>Non</u>	Haz Waste : Address of Next	Name and License / Permit No. and	
			(Tonnes per Year)				Method Used		Licence/Permit No of Recover/Disposer	Non Haz Waste: Address of Recover/Disposer	Disposer (HAZARDOUS WASTE ONLY)	i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
	European Waste				Waste			Location of				
Transfer Destination	Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment				
Within the Country	15 01 01	No	290.94	paper and cardboard packaging	R13	М	Weighed	Offsite in Ireland	Greenstar Bray,W0053-03	Fassaroe,Bray,.,Co Wicklow,Ireland Millennium Business Park Grange Bollycoolin Dubl		
Within the Country	15 01 01	No	220.72	paper and cardboard packaging	R13	М	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	in 11,Ireland Clermont Business		
Within the Country	15 01 02	No	11.24	plastic packaging	R13	м	Weighed	Offsite in Ireland	Leinster Environmentals,WP 2008/06	Park, Haggardstown, Dundalk , Co. Louth, Ireland Fassaroe, BrayCo		
Within the Country	15 01 06	No	4572.26	mixed packaging mixture of concrete, bricks, tiles and	R13	М	Weighed	Offsite in Ireland	Greenstar Bray,W0053-03	Wicklow, Ireland		
Within the Country	17 01 07	No	225.98	ceramics other than those mentioned in 17 01 06	R13	м	Weighed	Offsite in Ireland	Chi Environmental Ltd.,WMP 023/2007	Granagh,Kilmacow,.,Co. Kilkenny,Ireland		
Within the Country	20 01 40	No	0.68	metals	R4	М	Weighed	Offsite in Ireland	Clearcircle Metals (Limerick) Ltd,WFP-LKC-11-0001-01	Ballysimon Road,Limerick,.,,,Ireland Crag Avenue,Clondalkin		
Within the Country	20 03 01	No	109.74	mixed municipal waste	R13	м	Weighed	Offsite in Ireland	Greyhound Recycling, W0205 01 Bord na Mona Drebid	- Industrial Estate, Clondalkin ,Dublin 22, Ireland		
Within the Country	20 03 01	No	193.86	mixed municipal waste	D5	М	Weighed	Offsite in Ireland	Landfill,W0201-03 Greenstar	Carbury,,Co Kildare,Ireland Ballynagran		
Within the Country	20 03 01	No	19215.378	mixed municipal waste	D5	М	Weighed	Offsite in Ireland	Ballynagran,W0165-02 Murray Waste Recycling	Landfill,.,,,Wicklow,Ireland Coolatore,Ferns,Co		
Within the Country	20 03 01	No	1304.3	mixed municipal waste	R13	М	Weighed	Offsite in Ireland	Limited, W0258-01	Wexford,.,Ireland		
Within the Country	20 03 01	No	19.48	mixed municipal waste	D5	М	Weighed	Offsite in Ireland	Limited,W0146-02 O' Toole Composting,WFP-	Meath,,ireland Ballintrane,Fenagh,Co		
Within the Country	20 03 01	No	97.78	mixed municipal waste	R13	М	Weighed	Offsite in Ireland	CW-10-0003-01	Carlow,.,Ireland Robinhood Industrial Estate,Robinhood		
Within the Country	20 03 01	No	264.24	mixed municipal waste	R13	м	Weighed	Offsite in Ireland	Uxigen Environmental Ltd.,W0152-03	Road,Ballymount,Dublin 22,Ireland		
Within the Country	20 03 01	No	1247.58	mixed municipal waste	R13	М	Weighed	Offsite in Ireland	Greenstar Bray,W0053-03	Wicklow,Ireland Six Cross Roads		
Within the Country	20 03 01	No	70.64	mixed municipal waste	R13	М	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd (Waterford Baler),W0116-02 Greenstar	,Butlerstown ,Waterford,.,Ireland Ballynagran		
Within the Country	20 03 03	No	661.12	street-cleaning residues	D5	М	Weighed	Offsite in Ireland	Ballynagran,W0165-02 Thorntons Waste	Landfill,,Wicklow,Ireland kilmainhamwood,Kells,Meath		
Within the Country	20 03 07	No	31.46	bulky waste	R13	м	Weighed	Offsite in Ireland	Diposal,W0195-01	,.,Ireland Fassaroe,Bray,.,Co		
Within the Country	20 03 07	No	1399.231	bulky waste	H13	м	Weighed	Offsite in Ireland	Greenstar Bray, W0053-03	Wicklow, Ireland Enniscorthy,, Wexford, Irela		
within the Country	20 01 40	NO	15.86	metals	K4	M	weighed	Offsite in Ireland	Molloys,WP/08/14B	na		

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE | PRTR#: W0220 | Facility Name : Starrus Eco Holdings Limited (Gorey) | Filename : W0220_2015.xls | Return Year : 2015 | Please enter all quantities on this sheet in Tonnes

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

APPENDIX 2

Procedures List



Procedure Listing

Doc. No.: Control	Revision No.: As Shown	Issue Date: As Shown
Approved By:	Malcolm Dowling – Group Compliance Manager	Page 3 of 31

Integrated P	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 Proce	edures - 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



Procedure Listing greenstar Doc. No.: Control Revision No.: As Shown Issue Date: As Shown Approved By: Malcolm Dowling – Group Compliance Manager Page 4 of 31

Environment	al 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 02, 06/05/15
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



Amendment History

Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
05.07.10	01	All	01	Initial Issue	M.D & O.C
13.09.10	02	EP-03	02	Issue of Incident Reports	M.D
20.09.10	03	IP-10	02	Env issues not logged on WIMS Database	M.D
29.10.10	04	IP-13	02	Use of M&M equipment by contractors	M.D & O.C
29.10.10	05	IP-14	02	Use of M&M equipment by contractors	M.D & O.C
29.10.10	06	SP-02	02	Inclusion of Maintenance Schedule	M.D & O.C
05.11.10	07	IP-04	02	Inclusion of other requirements	S.B & O.C
01.02.11	08	SP-08	01	Inclusion of new procedure	0.C
01.02.11	09	IP-10	03	Inclusion of SP-08	0.C
01.02.11	10	IP-15	02	Removal of SF-022	0.C
01.02.11	11	Contents	As shown	EP-10 Site Specific	M.D & O.C
01.02.11	12	IP-06	02	Addressing Agency Staff needs	M.D & O.C
01.02.11	13	Circ List	02	Amendment to document control	M.D & O.C
04.04.11	14	SP-02	03	Inclusion of Site Specific Maintenance schedules	0.C
07.06.11	15	IP-11	02	Inclusion of H&S & Env Internal Audit Schedules	M.D & O.C
14/09/11	16	EP-02	02	Inclusion of decommissioning of plant/equipment	S.B
15/09/11	17	IP-09	02	Inclusion of Statutory Inspections	0.C
01/12/11	18	SP-09	01	Inclusion of new procedure for SCGT	0.C
01/12/11	19	SP-10	01	Inclusion of new procedure for SCGT	0.C
03/05/12	20	SP-01	02	Amendment to remove SF 028	0.C
05/05/12	21	SP-11	01	Inclusion of a new procedure for Greenogue	0.C
28/05/12	22	IP-11	03	General Amendments to internal audit procedure	M.D & O.C
08/06/12	23	IP-13	03	Grammatical amendment	M.D & O.C
15/04/13	24	IP-06	03	Agency staff – sign-off record sufficient proof of training. TMS optional	M.D & O.C



Circulation List

Doc. No.: Control	Revision No.: As Shown	Issue Date: As Shown	
Approved By:	Malcolm Dowling – Group Compliance Manager	Page 6 of 31	

Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
30/06/13	25	IP-16	01	Inclusion of new procedure	M.D.
09/09/13	26	IP-03	02	Use of Scannell Software Solutions (EnviroManager) instead of IF-03A	M.D & O.C
09/09/13	27	IP-04	30	Use of Scannell Software Solutions (EnviroManager) instead of IF-03A	M.D & O.C
09/09/13	28	IP-05	02	Use of Scannell Software Solutions (EnviroManager) instead of IF-03A	M.D & O.C
16/10/13	29	EP-03	03	Introduction of EPA ALDER Portal	K.B
28/04/14	30	All EP's & IP's	01	Change of Company name and review of all Integrated and Env procedures	M.D & O.C
28/04/14	31	SP's	01	Change of Company name and review of all safety procedures including re- numbering & deletion of Motor Claim Notification Procedure – SP 08	0.C
06/05/15	32	EP-09	02	Ref to new form EF-11 added	SS



Circulation List

The Integrated Procedures Manual is a controlled document. Copies of the Procedures Manual are available as follows;

Copy Number	Holder
1 (Master Copy)	Group H&S Manager
2	Greenstar EnviroManager
3	Greenstar Intranet – Electronic Copy