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ANNUAL ENVIRONMENTAL REPORT
STARRUS ECO HOLDINGS LTD
SIX CROSS ROADS, WATERFORD
LICENCE NO. W0116-02
JANUARY 2017 – DECEMBER 2017

Prepared For: -

Starrus Eco Holdings Ltd.,
Fassaroe,
Bray,
Co. Wicklow

Prepared By: -

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5th April 2018

Project		Annual Environmental Report 2017		
Client		Starrus Eco Holdings Ltd. W0116-02		
Report No	Date	Status	Prepared By	Reviewed By
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1. INTRODUCTION

This is the 2017 Annual Environmental Report (AER) for the Starrus Eco Holding Ltd. (SEHL) Materials Recovery Facility (MRF) at Six Cross Roads, Butlerstown, County Waterford. The report covers the period from the 1st January 2017 to the 31st December 2017.

The content of the AER is based on Schedule F of the Industrial Emissions Licence (W0116-02) and the report format follows guidelines set in the “*Guidance Note for Annual Environmental Report*” issued by the Environmental Protection Agency (Agency)¹. Cognisance was also taken of the AER Draft Guidance Document issued in January 2012².

¹ EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency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

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

The waste processing building which houses the baler is located in the eastern section of the site. The baled materials are stored on the hard standing within the waste processing building and on the external paved section along the northern boundary of the site. The runoff from the areas used to store the bales is diverted by the waste water drainage system to an underground tank. The weighbridge and site office are located to the east of the yard.

2.2 Waste Management Activities

The licence allows SEHL to accept and process 70,000 tonnes of waste per annum, comprising commercial/industrial non-hazardous waste, household waste, and construction and demolition wastes.

2.2.1 Waste Types & Processes

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

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

No hazardous wastes are accepted. The maximum amount of each waste type accepted, may be altered with the prior agreement of the Agency as long as the total maximum tonnage is not exceeded.

The installation was used for storage purposes until July 2017, the acceptance of waste recommenced on the 1st September 2017. The plastics granulation operation previously carried out at our sister site in Waterford is now carried out here. It involves the sorting

and granulation of plastic polypropylene caps and spruce into sealed tonne canvas bags for export.

2.2.2 Plant List

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

Table 2.1 Plant List – 2017

No.	Plant	Model	Operational Capacity tpd	Standby Capacity tpd
1	Road Sweeper	Iveco 180E23	500 lts	
2	Loading Shovel	Volvo L90F	200	120
1	Plastic granulator	Enginplast BA800	600kgs/hour	
1	Plastic granulator	Harbold	600kgs/hour	

3. EMISSION MONITORING

The monitoring specified in the licence includes surface water, dust and noise monitoring. The monitoring locations are shown on Figure 3.1. The surface water monitoring results are included in reports submitted to the Agency at quarterly intervals. The dust and noise monitoring results are reported to the agency bi-annually. An overview of the monitoring completed in 2017 is presented in this section.

3.1 Surface Water Monitoring

Surface water monitoring is carried out at three locations (SW-1, SW-2 and SW-3). Rainwater run-off from the site discharges to a culverted stream on the eastern side of the access road (cul de sac). The receiving stream runs from the New Ring Road to the Six Cross Roads and is culverted from the start of the industrial estate to the Six Cross Roads.

The monitoring locations include the surface water discharge point and up and downstream of the discharge, as shown on Figure 3.1. SW-1 is to the north and upstream of the installation. SW-2 is at the discharge point and SW-3 is to the south and downstream, where the stream is not culverted. This is the closest accessible downstream location.

The samples, collected by SEHL staff, were analysed for the quarterly parameters specified in Schedule C of the Licence. The results are presented on Tables 3.1 to 3.4. The methodologies were all ISO/CEN approved or equivalent and the method detection limits were lower than the proposed trigger levels for the discharge. The results were all less than the proposed trigger levels.

Table 3.1 Surface Water Monitoring Results – Q1 2017

Parameter	Units	SW-1 Upstream	SW-2 Discharge	SW-3 Downstream	Proposed Trigger Level*
pH	pH units	7.63	7.62	7.45	5.5 – 9.0
Conductivity	mS/cm	0.18	0.096	0.186	1.000
COD	mg/l	<7	<7	<7	40
Total Ammonia	mg/l	0.09	0.12	0.12	3.78
Suspended Solids	mg/l	29	<10	77	-
Mineral Oils	mg/l	<0.01	<0.01	<0.01	-

* - The Trigger levels only apply to the discharge point SW-2

Table 3.2 Surface Water Monitoring Results – Q2 2017

Parameter	Units	SW-1 Upstream	SW-2 Discharge	SW-3 Downstream	Proposed Trigger Level*
pH	pH units	7.71	7.65	7.43	5.5 – 9.0
Conductivity	mS/cm	0.204	0.090	0.164	1.000
COD	mg/l	20	8	22	40
Total Ammonia	mg/l	0.11	0.41	0.12	3.78
Suspended Solids	mg/l	<10	10	<10	-
Mineral Oils	mg/l	<0.01	<0.01	<0.01	-

* The Trigger levels only apply to the discharge point SW-2

Table 3.3 Surface Water Monitoring Results – Q3 2017

Parameter	Units	SW-1 Upstream	SW-2 Discharge	SW-3 Downstream	Proposed Trigger Level*
pH	pH units	6.88	7.08	6.80	5.5 – 9.0
Conductivity	mS/cm	0.228	0.168	0.248	1.000
COD	mg/l	15	20	15	40
Total Ammonia	mg/l	0.11	0.31	0.26	3.78
Suspended Solids	mg/l	<10	<10	<10	-
Mineral Oils	mg/l	<0.01	<0.01	<0.01	-

* - The Trigger levels only apply to the discharge point SW-2

Table 3.4 Surface Water Monitoring Results – Q4 2017

Parameter	Units	SW-1 Upstream	SW-2 Discharge	SW-3 Downstream	Proposed Trigger Level*
pH	pH units	7.31	7.32	7.42	5.5 – 9.0
Conductivity	mS/cm	0.406	0.162	0.351	1.000
COD	mg/l	19	21	10	40
Total Ammonia	mg/l	0.06	1.68	0.17	3.78
Suspended Solids	mg/l	<10	21	<10	-
Mineral Oils	mg/l	<0.01	0.77	<0.01	-

3.2 Noise Monitoring

The licence requires bi-annual noise surveys to be completed. The monitoring locations include three boundary locations (N1 – N3) and two off site noise sensitive locations (N4 and N5). There were no on site operations being undertaken during the noise survey, however the gate was opened several times to allow trucks enter and exit. The surveys confirmed that noise emissions fully complied with the licence and that the installation is not impacting negatively on the nearest sensitive receptors. The first noise survey was conducted in June and the second in November. A summary of the noise results is shown in Tables 3.5 and 3.6.

Table 3.5 Noise Monitoring Results June 2017

Station	Date	Time	Wind vector	L _{Aeq} 30 min dB	L _{AF10} 30 min dB	L _{AF90} 30 min dB	Specific L _{Aeq} 30 min dB
N1	22.06.17	0802-0832	0	56	60	48	<56
	<p>Facility: Grinder in occasional use in maintenance garage clearly audible. Radio in building audible at low level continuously. Single car movement through gate.</p> <p>Extraneous: Distant road traffic continuously quite audible. Several movements on local access road dominant when present. Bird song/calls. Occasional activity audible at premises to N.</p> <p>Specific L_{Aeq} T determination: Amplitude and duration of sporadic onsite activities insufficient to affect Leq, thus <Leq.</p>						
N2	22.06.17	0919-0949	0	54	56	46	<54
	<p>Facility: Several car movements through gate clearly audible. Sporadic activity in maintenance garage also clearly audible.</p> <p>Extraneous: Distant road traffic continuously quite audible. Several movements on local access road dominant when present. Bird song/calls. Occasional activity clearly audible at adjacent premises.</p> <p>Specific L_{Aeq} T determination: Amplitude and duration of sporadic onsite activities insufficient to affect Leq, thus <Leq.</p>						
N3	22.06.17	0844-0914	0	54	55	49	<54
	<p>Facility: Grinder and welder in occasional use in building clearly audible. Radio in building audible at low level continuously. Two vehicle movements through gate, and truck idling 0904-0908.</p> <p>Extraneous: Distant road traffic continuously clearly audible. Several movements on local access road dominant when present. Bird song/calls. Occasional activity audible at premises to N, including loader bucket scraping on ground.</p> <p>Specific L_{Aeq} T determination: Amplitude and duration of sporadic onsite activities insufficient to affect Leq, thus <Leq.</p>						
N4	22.06.17	0954-1024	+	56	56	47	<46
	<p>Facility: No emissions audible.</p> <p>Extraneous: Regular traffic movements through road junction dominant when present. Distant traffic continuously clearly audible in several directions. Bird song/calls and lightly rustling trees.</p> <p>Specific L_{Aeq} T determination: Inaudible, thus <L95.</p>						
N5	22.06.17	1028-1058	+	62	62	45	<44
	<p>Facility: No emissions audible.</p> <p>Extraneous: Intermittent passing traffic intrusive when present. Distant traffic continuously clearly audible on R710, dominating soundscape. Continuous air handling emissions at nearby commercial premises audible at low level. Compressor cutting in at nearest premises dominant when running. Bird song/calls and lightly rustling trees.</p> <p>Specific L_{Aeq} T determination: Inaudible, thus <L95.</p>						

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.

Table 3.6 Noise Monitoring Results November 2017

Station	Date	Time	Wind vector	L _{Aeq} 30 min dB	L _{AF10} 30 min dB	L _{AF90} 30 min dB	Specific L _{Aeq} 30 min dB
N1	30.11.17	0914-0944	0	65	66	60	65
	<p>Facility: Mini-excavator in nearest building continuously clearly audible, with granulator in further building also continuously quite audible. Sporadic vehicle movements through adjacent gate dominant when present. Extraneous: None, apart from several vehicle movements on adjacent roadway. Specific L_{Aeq T} determination: Leq representative.</p>						
N2	30.11.17	0845-0915	0	71	73	68	71
	<p>Facility: Granulator plant in nearest building continuously dominant. Forklift truck reversing alarm in building clearly audible. Sporadic vehicle movements on yard clearly audible. Extraneous: None audible. Specific L_{Aeq T} determination: Leq representative.</p>						
N3	30.11.17	0842-0912	0	71	74	61	71
	<p>Facility: Mini-excavator engine operating in nearest building continuously dominant. Sporadic vehicle movements on adjacent yard and through gate clearly audible, with several truck movements nearby. Extraneous: None audible. Specific L_{Aeq T} determination: Leq representative.</p>						
N4	30.11.17	0950-1020	+	59	60	50	<49
	<p>Facility: Inaudible. Extraneous: Intermittent traffic through adjacent junction dominant when present. R710 traffic continuously clearly audible, dominating soundscape. Bird song/calls and aircraft. Specific L_{Aeq T} determination: Inaudible, thus <L95.</p>						
N5	30.11.17	1028-1058	+	65	65	49	<49
	<p>Facility: Inaudible. Extraneous: Intermittent passing traffic dominant when present. R710 traffic continuously clearly audible, dominating soundscape. Bird song/calls and aircraft. Air management system or similar at nearby commercial premises continuously audible at low level. Specific L_{Aeq T} determination: Inaudible, thus <L95.</p>						

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.



Monitoring Locations

SW-1	258297	109231
SW-2	258322	109102
SW-3	258352	108887
D1	258338	109073
D2	258319	109131
D3	258356	109126
N1	258321	109106
N2	258359	109126
N3	258339	109081
N4	258334	108877
N5	258422	108990



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CLIENT

Greenstar

TITLE

Monitoring Locations
Waterford

LEGEND

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

FIGURE NUMBER

3.1

Scale

Not To Scale

Revision

A

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3.3 Dust Monitoring

Dust monitoring was carried out on two occasions at three on-site locations (D1, D2 and D3) in August and September 2017. The results of the monitoring are included on Table 3.6. The dust levels at D2 exceeded the limit in September. D2 is located at the corner of the facility adjacent to the roadway and to a loading area associated with a neighbouring waste installation.

During the reporting period there waste processing was carried out at the installation. However, the dust deposition limit was exceed at D2 on two occasions during 2016 when the installation was not operational. Therefore the installation is not considered to be source of dust at this location. No complaints relating to dust were received from neighbouring premises during the reporting period.

Table 3.7 Dust Monitoring Results 2017

Dust Emission (mg/m ² /day)	August	September	Emission Limit
Sample Location	(30 days)	(30 days)	(mg/m ² /day)
D1	31	148	350
D2	346	621	350
D3	250	341	350

4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

There were a no specified engineering works undertaken in 2017.

4.2 Summary of Resource & Energy Consumption

Table 4.1 presents an estimate of the resources used on-site during the reporting period and in 2016.

Table 4.1 Estimate of Resources Used On-Site in 2017

Resources	Quantities 2016	Quantities 2017
Diesel (green)	0 litres	1,361 litres
Electricity	13,560 kWh	15,120 kWh
Hydraulic Oil	0 litres	0 litres
Odour Neutraliser	0 litres	0 litres

4.3 Bund Integrity Test

Condition 6.9 of the licence requires that the integrity and water tightness of all underground pipes, tanks, bunding structures and containers and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee. It further states that this testing shall be carried out by the licensee at least once every three years and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

Integrity testing was carried out in August 2017 and the interceptors and drainage lines were passed fit for purpose. The reports are retained at the installation for Agency inspection.

5. WASTE RECEIVED AND CONSIGNED FROM THE INSTALLATION

Table 5.1 shows the total quantities of waste received and consigned from the installation in 2017. The total amount of waste accepted and consigned in the past eight years is shown on Table 5.2. A breakdown of the waste types is provided in accordance with the European Waste Catalogue and Hazardous Waste list. A more detailed description of the wastes accepted and consigned is provided in the PRTR return in Appendix 1.

The total quantity of waste received was 3,077 tonnes. The total waste consigned was 3,525 tonnes. More waste was consigned than received this was waste which remained onsite at the end of 2016 and was consigned in 2017. All the wastes consigned went to authorised recovery and disposal facilities approved by the Agency.

Table 5.1 Waste Received & Consigned 2017

EWC	Description	Waste In	Waste Out
15 01 01	Cardboard Packaging	1.56	
15 01 02	Plastic Packaging	1,136.26	
15 01 07	Glass Packaging	0.72	
19 12 04	Plastic		1,061.85
19 12 12	MSW Municipal Mixed		398.04
20 01 39	Plastic		1.04
20 03 01	MSW Municipal Mixed	1,938.66	2,056.398
20 03 07	C&I Dry Mixed		8.04
Total Received		3,077.20	
Total Consigned			3,525.368
Recovery			3,525.368
Disposal			0
Recovery Rate			100%

Table 5.2 – Waste Received and Consigned since 2009

Year	Total Received	Total Consigned	Recovery Rate
2016	7,275	6,792	100%
2015	19,835	20,922	100%
2014	34,980	33,420	100%
2013	0	0	N/A
2012	0	0	N/A
2011	714.00	673.68	100%
2010	14,151	13,869	100%
2009	22,366	22,651	95.5%

NA-Not Applicable

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There was one exceedance of the dust deposition limit, which occurred in September.

6.2 Register of Complaints

SEHL maintains a register of complaints received at the installation offices. There were no complaints received in 2017.

7. ENVIRONMENTAL DEVELOPMENT

7.1 Environmental Management Programme Report

SEHL 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 account the requirements of the Waste Licence Conditions. SEHL 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 installation is accredited to both standard and this accreditation was retained following an audit in September 2017.

The schedule of Objectives and Targets, including their status for 2017 (Table 7.1), as well as the proposed Objectives and Targets for 2018 (Table 7.2) are presented below. An index of procedures used at the installation is included in Appendix 2.

7.1.1 Site Management Structure

Management and Staffing structure: -

Name: Tom Walsh
Responsibility: Operations Manager
Experience: Over 10 years experience waste management experience; has completed the FÁS waste management course.

Name: Ivan Cummins
Responsibility: Yard Supervisor
Experience: 30 years experience waste management experience.

Name: Robertas Zemaitaitis
Responsibility: General Yard Operative
Experience: Over 5 years waste management experience; has completed the Patel Tonra (CIWM accredited) Waste Management Course

Name: Stephanie Pietercelie
Responsibility: Operations & Environmental
Experience: Over 5 years waste management experience; has completed the Patel Tonra (CIWM accredited) Waste Management Course

7.1.2 Staff Training

Environmental training is carried out for any new staff employed at the installation as required. In 2017, manual handling, forklift, fire warden, first aid and health and safety induction training were carried out. Copies of all training records are held in the installation office.

7.2 Environmental Management Programme

7.2.1 Schedule of Objectives 2017

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

7.2.2 Schedule of Objectives 2018

The schedule of targets and objectives for 2018 are presented in Table 7.1.

7.3 Communications Programme

SEHL is committed to setting the standard in waste management and ensuring environmental compliance in all operations. In addition, SEHL's Environmental, Health & Safety Policy makes a specific commitment to ensure that this policy and environmental records are available to the public and interested parties.

To this end SEHL has drawn up a Communications Programme, which details how members of the public are facilitated in accessing and viewing environmental information at the installation. Members of the public who wish to inspect these files may do so at any reasonable time by making an appointment with the Operations Manager using the telephone number posted on the main installation entrance sign.

Table 7.1 Schedule of Objective and Targets 2017

No.	Objective	Target	Timescale	Responsibility	Status
1	Odour management	Ensure odour management plans are followed and potential new sources of odour are identified	Q1 - Q4	Site management	Ongoing
2	Fire prevention	Implement recs from Fire Risk Assessments	Q1 - Q4	Site management/ EHS team	Ongoing
		Update ERP & APP			Ongoing
		Maintain fire detection equipment			Ongoing
3	Waste storage	Review waste storage practices on each site to ensure that they are inline with licence conditions, fire prevention and insurance recommendations	Q1 - Q4	Site management/ EHS team	Ongoing
4	Waste acceptance, classification & records	EWC training for all weighbridge ops. Centralisation of all licences & permits inc NWCPs for hauliers.	Q1 - Q4	EHS team	Completed
5	CRAMP, ELRA & Financial Provision	CRAMP, ELRA & Financial Provision to be reviewed	Q2	EHS team	Completed
6	Lighting in MRF buildings	Clean & upgrade where required all light fittings in MRF buildings	Q3	Site management	Ongoing
7	Pipeline integrity Testing	Complete pipeline integrity testing	Q1/Q2	Site management	In Progress

Table 7.2 Schedule of Objective and Targets 2018

No.	Objective	Target	Timescale	Responsibility
1	Nuisance management	Ensure odour/noise/dust management plans are followed and potential new sources are identified	Q1 - Q4	Site management
2	Fire prevention	Implement recs from Fire Risk Assessments Update ERP & APP where applicable Maintain fire detection equipment	Q1 - Q4	Site management/EHS team
3	Waste storage	Review waste storage practices on each site to ensure that they are in line with licence conditions, fire prevention and insurance recommendations	Q1 - Q4	Site management/EHS team
4	ISO 14001 transition	Transition ISO 14001 to the 2015 standard	Q2	EHS team
5	Paperless project	Implement plans for a paperless office	Q3-Q4	All staff
6	Resource tracking	Sites to track energy usage and other resources in order to conserve wherever possible	Q1 - Q4	Site management/EHS team
7	Hardstand & site infrastructure	Review hardstand and formulate repair plan as required. Record using EF11.	Q1 - Q4	Site management/EHS team

7.4 Report Financial Provision

A Closure and Decommissioning Plan and an Environmental Liabilities Risk Assessment (ELRA) including Financial Provision (FP) were submitted to the Agency as part of the transfer of the licence which occurred in Q1 2014. Financial provision was approved by the Agency prior to completion of the Licence transfer in March 2014. In 2017, the Agency requested a review of the DMP and ELRA, revised copies of the reports were submitted in April.

The installation has an Integrated Management System (IMS) in place and the site has achieved external accreditation for its implementation of ISO 14001 and OHSAS 18001, environmental and health and safety management systems. Effective implementation of these systems is the most appropriate way to ensure that mitigation measures achieve the required risk reduction on site.

The IMS serves as a guidance document for installation staff and describes operational control and management practices that are applied at the installation. The IMS is designed to ensure that management of site activities complies with regulatory requirements and best practice. The IMS includes a detailed Emergency Response Procedure which sets out the steps to be taken in the event of an incident at the installation with the potential to cause environmental damage. SEHL also implements a comprehensive monitoring programme which will highlight any potential environmental incidents with the potential to cause environmental damage.

7.5 Nuisance Controls

SEHL has contracted a vermin control company to carry out nuisance control at the installation. Rentokil provide pest control at the installation and also provide for the treatment of insects at the installation if necessary. Daily litter picks and road-sweeping are carried out by yard operators during the course of their daily duties.

An odour control system (de-odouriser spray system) is in place that can be operated automatically or manually by the Environmental Officer and Operations Supervisor as needed. In general, during operations the deodorizer is on full time. Outside operations it is set on a timer to spray for 10 minutes every hour.

A site inspection is carried out daily and recorded on the facilities inspection log which is controlled as part of the current Integrated Management System. During 2017, weekly odour impact assessments of the installation and the vicinity were carried out and records are available on-site. These assessments were carried out in a manner consistent with the Agency Guidance Note for EPA Licensed Sites (AG5).

7.6 Foul water Volume Transported Off-Site

No wastewater was removed from site in 2017.

8. OTHER REPORTS

8.1 European Pollutant Release and Transfer Register Regulation

Under the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006 GES are required to submit information annually to the Agency. A copy of the return 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

| PRTR# : W0116 | Facility Name : Starrus Eco Holdings Limited (Butlerstown) |
 Filename : W0116_2017.xls | Return Year : 2017 |

[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2017
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1. FACILITY IDENTIFICATION

Parent Company Name	Starrus Eco Holdings Limited
Facility Name	Starrus Eco Holdings Limited (Butlerstown)
PRTR Identification Number	W0116
Licence Number	W0116-02

Classes of Activity

No.	class name
-	Refer to PRTR class activities below

Address 1	Six Cross Roads
Address 2	Carriganard
Address 3	Butlerstown
Address 4	
	Waterford
Country	Ireland
Coordinates of Location	-7.145867687 52.23057934
River Basin District	IESE
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Sara Smyth
AER Returns Contact Email Address	sara.smyth@greenstar.ie
AER Returns Contact Position	Environmental Engineer
AER Returns Contact Telephone Number	01 2746236
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	3
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

Is it applicable?	
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](#)

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

[Link to previous years emissions data](#)

| PRTR# : W0116 | Facility Name : Starrus Eco Holdings Limited (Butlerstown) | Filename : W0116_2017.xls | Return Year : 2017 |

26/03/2018 19:43

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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	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

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	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)

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	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

Additional Data Requested from Landfill operators

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

Landfill: Starrus Eco Holdings Limited (Butlerstown)

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# : W0116 | Facility Name : Starrus Eco Holdings Limited (Butlerstown) | Filename : W0116_2017.xls | Return Year : 2017 |

26/03/2018 19:43

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 it

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		M/C/E	Method Used		QUANTITY			
No. Annex II	Name		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		M/C/E	Method Used		QUANTITY			
No. Annex II	Name		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		M/C/E	Method Used		QUANTITY			
Pollutant No.	Name		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#: W0116 | Facility Name : Starrus Eco Holdings Limited (Butlerstown) | Filename : W0116_

26/03/2018 19:43

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					0.0	0.0	0.0	0.0

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

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

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					0.0	0.0	0.0	0.0

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

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

| PRTR# : W0116 | Facility Name : Starrus Eco Holdings Limited (Butlerstown) | Filename : W0116_2017.xls | Return Year : 2017 |

26/03/2018 19:44

SECTION A : PRTR POLLUTANTS

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

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

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0116 | Facility Name : Starrus Eco Holdings Limited (Butlerstown) | Filename : W0116_2017.xls | Return Year : 2017 |

26/03/2018 19:44

Please enter all quantities on this sheet in Tonnes

3

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Lic. Waste - Name and Licence/Permit No of Next Destination Facility Haz Waste: Name and Licence/Permit No of Recoverer/Disposer	Non 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	19 12 12	No	398.04	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	Glanway Ltd,WFP-KK-14-0002-01	11 Patricks Street,Kilkenny,...,Ireland	Merrywell Industrial Estate,Ballymount Road Lower,Ballymount ,Dublin 12,Ireland	
Within the Country	20 03 01	No	66.38	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Dublin City Council,W0238-01	Killarney Waste Disposal,W0217-01	Aughacurreen,Killarney ,Co. Kerry,...,Ireland	
Within the Country	20 03 01	No	38.08	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Quality Recycling Ltd.,WFP-TS-08-0079-01	Ballylynch,Carrick-on-Suir,Co. Tipperary,...,Ireland	Sarsfieldcourt Industrial Estate,Glanmire,Co. Cork,...,Ireland	
Within the Country	20 03 01	No	9.86	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holding Ltd.,W0136-03	Leinster Environmentals,WP 2008/06	Clermont Business Park,Haggardstown,Dundalk ,Co. Louth,Ireland	
Within the Country	19 12 04	No	224.84	plastic and rubber	R12	M	Weighed	Offsite in Ireland	Agnail Ltd.,IRE/AG117-16	Greentech Plastics Ltd.,WFP-LK-2013-164	Ballymacken Industrial Estate,Ballymacken ,Portlaoise,Co. Laois,Ireland	
Within the Country	19 12 04	No	21.28	plastic and rubber	R3	M	Weighed	Offsite in Ireland	Recycling,IRE/AG121/15	Starrus Eco Holdings Ltd.,W0053-03	Wicklow,...,Ireland	
To Other Countries	19 12 04	No	370.88	plastic and rubber	R3	M	Weighed	Abroad	Starrus Eco Holdings Ltd.,W0177-03	Starrus Eco Holdings Ltd.,W0177-03	Sarsfieldcourt Industrial Estate,Glanmire,Co. Cork,...,Ireland	
Within the Country	20 03 01	No	202.978	mixed municipal waste	R12	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd.,W0177-03	Starrus Eco Holdings Ltd.,W0177-03	Six Cross Roads Business Park,Carriganard,Waterford,..,Ireland	
Within the Country	20 03 01	No	29.06	mixed municipal waste	R12	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd.,W0177-03	Starrus Eco Holdings Ltd.,W0177-03	Sarsfieldcourt Industrial Estate,Glanmire,Co. Cork,...,Ireland	
Within the Country	20 03 01	No	310.96	mixed municipal waste	R12	M	Weighed	Offsite in Ireland	Starrus Property Holdings Ltd,WFP-CK-10-0047-03	Starrus Eco Holdings Ltd.,W0177-03	Six Cross Roads Business Park,Carriganard,Waterford,..,Ireland	
Within the Country	20 03 07	No	8.04	bulky waste	R12	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd.,W0177-03	Starrus Eco Holdings Ltd.,W0177-03	Six Cross Roads Business Park,Carriganard,Waterford,..,Ireland	
Within the Country	20 01 39	No	1.04	plastics	R3	M	Weighed	Offsite in Ireland	K Plastics Products Co. Limited,N/A	K Plastics Products Co. Limited,N/A	4 Cleveragh Business Centre,Silgo,...,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:	David Naughton – Group Environmental Manager	Page 1 of 5
	Joe Nicholson – Group H&S Manager	

Integrated Procedures - IP

IP-01	Document & Record Control Procedure	Rev 01, 22/05/17
IP-02	Health & Safety Risk Assessment Procedure	Rev 01, 22/05/17
IP-03	Environmental Aspects & Impacts Procedure	Rev 01, 22/05/17
IP-04	Legal & Regulatory Requirements Procedure	Rev 01, 22/05/17
IP-05	Objectives, Targets & Management Programmes Procedure	Rev 01, 22/05/17
IP-06	Competence, Training & Awareness Procedure	Rev 01, 22/05/17
IP-07	Communication & Consultation Procedure	Rev 01, 22/05/17
IP-08	Monitoring, Measurement & Improvement Procedure	Rev 01, 22/05/17
IP-09	Evaluation of Compliance Procedure	Rev 01, 22/05/17
IP-10	Non Conformances, Corrective/Preventive Actions Procedure	Rev 01, 22/05/17
IP-11	Internal Audit Procedure	Rev 01, 22/05/17
IP-12	Management Review Procedure	Rev 01, 22/05/17
IP-13	Control of Contractors/Visitors Procedure	Rev 01, 22/05/17
IP-14	Health & Safety & Environmental Monitoring	Rev 01, 22/05/17
IP-15	Emergency Preparedness & Response Procedure	Rev 01, 22/05/17
IP-16	Fire Prevention Procedure	Rev 01, 22/05/17
IP-17	Bin Washing Procedure	Rev 01, 22/05/17
IP-18	Accident Prevention Procedure	Rev 01, 22/05/17
IP-19	Fuel Procedure for Tanks & Mobile Plant	Rev 01, 22/05/17

Safety Procedures - SP

SP-01	Permit to Work Procedure	Rev 01, 22/05/17
SP-02	Maintenance & Calibration Procedure	Rev 01, 22/05/17
SP-03	Mobile Plant Procedure	Rev 01, 22/05/17
SP-04	Fork Truck Procedure	Rev 01, 22/05/17
SP-05	Operation of Fixed Plant Procedure	Rev 01, 22/05/17
SP-06	Lock Out / Tag Out Procedure	Rev 01, 22/05/17
SP-07	Health & Safety Notification Procedure	Rev 01, 22/05/17
SP-08	MSW Shredder routine Maintenance & Clearing of Blockages Procedure (SCGT)	Rev 01, 22/05/17
SP-09	Weighbridge & Tipping Procedure (SCGT)	Rev 01, 22/05/17
SP-10	Cleaning of Washing Bay (Greenogue)	Rev 01, 22/05/17



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	Joe Nicholson – <i>Group H&S Manager</i>	

Environmental Procedures - EP		
EP-01	Office Waste & Energy Management Procedure	Rev 01, 22/05/17
EP-02	Decommissioning and Aftercare Procedure	Rev 01, 22/05/17
EP-03	Environment Communications Procedure	Rev 01, 22/05/17
EP-04	Waste Permits & Licences Procedure	Rev 01, 22/05/17
EP-05	Waste Acceptance Procedure	Rev 01, 22/05/17
EP-06	Unacceptable Waste Procedure	Rev 01, 22/05/17
EP-07	Waste & Material Storage Procedure	Rev 01, 22/05/17
EP-08	Waste Processing Procedure	Rev 01, 22/05/17
EP-09	Site Infrastructure Procedure	Rev 01, 22/05/17
EP-10	Nuisance Management Procedure (Site Specific)	(Site Specific) Rev 01, 22/05/17
EP-11	Civic Amenity Site Procedure	Rev 01, 22/05/17

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Approved By:	Malcolm Dowling – Group Compliance Manager	Page 3 of 5

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	O.C
01.02.11	09	IP-10	03	Inclusion of SP-08	O.C
01.02.11	10	IP-15	02	Removal of SF-022	O.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	O.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	O.C
01/12/11	18	SP-09	01	Inclusion of new procedure for SCGT	O.C
01/12/11	19	SP-10	01	Inclusion of new procedure for SCGT	O.C
03/05/12	20	SP-01	02	Amendment to remove SF 028	O.C
05/05/12	21	SP-11	01	Inclusion of a new procedure for Greenogue	O.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

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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	O.C
06/05/15	32	EP-09	02	Ref to new form EF-11 added	SS
21/01/16	33	IP-05/IP-07/IP-12	02	Meeting frequency refs updated	SS
14/11/16	34	IP-18	02	Amended as per EPA instruction	SS
11/01/17	35	IP-19	01	New addition	SS
22/05/17	36	All EP's, SP's & IP's	01	Review of all procedures	DN & JN



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Approved By:	Malcolm Dowling – Group Compliance Manager	Page 5 of 5

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