

Starrus Eco Holdings Ltd.

**Annual Environmental
Report (AER) 2016**

**Greenogue MRF,
Rathcoole, County Dublin
Licence: W0188-01**

April 2017

**CDM
Smith**

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TABLE OF CONTENTS

SECTION 1 INTRODUCTION	1
SECTION 2 SITE DESCRIPTION.....	2
SECTION 3 EMISSIONS MONITORING	4
SECTION 4 SITE DEVELOPMENT WORKS	10
SECTION 5 WASTE RECEIVED AND CONSIGNED FROM THE FACILITY.....	11
SECTION 6 ENVIRONMENTAL INCIDENTS AND COMPLAINTS	16
SECTION 7 ENVIRONMENTAL DEVELOPMENT	17
SECTION 8 OTHER REPORTS	23

LIST OF TABLES

Table 1 Waste Acceptance Categories & Quantities at Greenogue	2
Table 2 Existing Onsite Plant and Machinery.....	3
Table 3 Emission Monitoring and Reporting Frequencies	4
Table 4 SW-1 Surface Water Monitoring Results 2016	5
Table 5 SE-1 Wastewater Monitoring Results 2016	6
Table 6 Noise Monitoring Results 2016	7
Table 7 Dust Monitoring Results August 2016.....	8
Table 8 Dust Monitoring Results September 2016.....	8
Table 9 Dust Monitoring Results December 2016.....	9
Table 10 Estimates of Resources used on site – 2015 & 2016	10
Table 11 Waste Received & Consigned 2016.....	11
Table 12 Waste Received & Consigned 2015.....	13
Table 13 Waste Received & Consigned 2004 - 2016	15
Table 14 Progression of 2016 Objectives and Targets.....	19
Table 15 Objectives and Targets for 2017	20

LIST OF APPENDICES

- Appendix 1: Sampling Locations
- Appendix 2: IMS
- Appendix 3: European Pollutant Release and Transfer Register

Section 1 Introduction

1.1 Reporting Period

This is the 2016 Annual Environmental Report (AER) for the Starrus Eco Holdings Ltd (SEHL), Waste Transfer facility (WTF) at Site 14B, Phase 3, Road 3A, Greenogue Industrial Estate, Rathcoole, Co. Dublin. It covers the period from the 1st January 2016 to the 31st December 2016.

1.2 IED Licence

On the 27th of November 2015, the waste Licence W0188-01 was amended by the EPA and deemed to be an industrial emissions Licence (IED) granted under Part IV of the Environmental Protection Act 1992 as amended.

Section 2 Site Description

2.1 Site Location

SEHL operate a waste material transfer facility (MRF) at the Greenogue Business Park in Rathcoole, County Dublin. The facility is located in Greenogue Business Park in Rathcoole, approximately 12 km west of Tallaght and occupies an area of 0.603 hectares (ha). The surrounding area is characterised by a mixture of agricultural, recreational, residential, commercial and industrial land use.

2.2 Licenced Waste Activities

The facility is currently licensed to accept and process up to 95,000 tonnes of waste per annum, comprising municipal waste, commercial waste, industrial waste and construction and demolition waste. All waste processing takes place inside the waste transfer building, as specified in Condition 5 of the Licence.

2.2.1 Waste Types

The licensed waste types and quantities under Schedule A of the Licence are:

Table 1 Waste Acceptance Categories & Quantities at Greenogue

Waste Type	Maximum (tonnes per annum)
Municipal	15,000
Commercial	37,500
Industrial	37,500
Construction & Demolition	5,000
Total	95,000

The quantities of the above listed individual waste types may be adjusted with the prior agreement of the Agency, subject to the total maximum tonnage remaining the same.

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

2.2.2 Waste Processing

The main processes carried out at the facility are:

- The bulking up of municipal wastes (mixed municipal waste and dry mixed recyclables) for further recovery or disposal at separate licensed facilities;
- The separation of C&I waste into different waste streams (paper, cardboard, glass, metal, green waste and wood) for further recovery at separate licensed facilities; and
- The separation of C&D waste into clean and dirty waste streams for further recovery at separate licensed facilities.

All waste accepted at the facility is unloaded within the waste transfer building. Mixed wastes are emptied at separate bays to pre-segregated wastes. All waste intake is inspected for unsuitable material and if any is identified, it is transferred to a dedicated waste quarantine area.

Municipal Waste

Residual or 'black bin' waste is generally delivered to the facility in refuse collection vehicles (RCVs) and is transferred to large bulk transporters before onward transfer to an appropriate licensed disposal or recovery facility. Dry recyclable waste is stored separately and bulked before removal off-site to authorised waste recovery facilities. Segregated biodegradable wastes that are suitable for composting are stored separately in sealed containers, pending removal off-site to an authorised composting facility.

SEHL also provides a skip hire service to private individuals. All skips arriving at the facility are netted or covered. Recyclable material is segregated, where possible, from the residual-type waste and is transferred off-site to appropriate licensed recycling facilities.

Commercial and Industrial (C&I) Waste

Greenstar provides skips and bins of varying sizes to a wide range of commercial and industrial premises. Recyclable material collected from commercial customers (paper, cardboard, glass, metal, green waste and wood) is stored separately from the general waste stream and is bulked prior to transfer to suitable recycling facilities. The remaining non-recyclable and residual material is sent to authorised facilities.

Biodegradable waste is stored separately in a sealed container prior to dispatch to an authorised treatment facility.

Construction and Demolition (C&D) Waste

Construction and demolition material arrives on-site in skips of varying sizes. The loads are inspected and segregated on-site. Recoverable materials are extracted and sent off-site either for re-use or recycling. The non-recyclable materials are transferred to a licensed landfill.

2.2.3 Plant and Machinery List

A list of the plant and machinery in use at the facility is presented in Table 2. The plant provides 100% duty capacity and 50% standby capacity for waste processing.

Table 2 Existing Onsite Plant and Machinery

No.	Plant	Model	Operational Capacity
1	Loading Shovel	Volvo L1-20E	70 t/hr
1	Fork Lift	Toyota	60 hr/wk
1	Grab	Fuchs	70 t/hr
1	Weighbridge – 2 scale	Avery Berkel	60

Section 3 Emissions Monitoring

The monitoring required for the facility includes surface water, wastewater, dust and noise. All environmental emission monitoring is carried out at the specified intervals and frequency specified in schedule D of the Licence, while reports presenting the results of this monitoring are also submitted to the Agency at various frequencies, in accordance with Schedule E of the Licence (Table 3).

Table 3 Emission Monitoring and Reporting Frequencies

Medium	Monitoring Frequency	Reporting Frequency
Surface Water	Quarterly	Quarterly
Wastewater	Every two months	Quarterly
Dust	Three times a year	Three times a year
Noise	Annually	Annually

Monitoring locations are shown on Drawing FIG 001 in Appendix 1. An overview of the results of monitoring carried out at the facility in 2016 is presented in this chapter.

3.1 Surface Water Monitoring

Surface water run-off is confined to run-off from the roofed area of the waste transfer building and some of the paved yards. It is completely dependent on rainfall. The surface water is treated by a Class 1 petrol/oil interceptor prior to discharge to industrial park drainage system

3.1.1 Monitoring Locations

Quarterly surface water monitoring of all parameters was carried out at the surface water monitoring point SW-1, as shown on Drawing FIG 001.

Monitoring of ammonia at SW-1 was carried out on a weekly basis during 2016 as elevated ammonia levels were recorded in the surface water discharge from the site during 2014. A reduction in recorded ammonia levels has been noticeable from the weekly monitoring undertaken in 2016. This reduction was likely due to works which were carried out in August 2016 which included the cleaning out of and diversion from a redundant silt trap which was discharging to SW-1. The water flowing through this silt trap was suspected to have been a potential source of the elevated ammonia levels recorded during early 2016.

3.1.2 Monitoring Parameters and Analysis

Monitoring and analysis was carried out for the parameters listed in Schedule D of the Licence.

The surface water analysis for 2016 was carried out by ALS laboratories.

3.1.3 Monitoring Results

The results for Q1, Q2, Q3 and Q4 in 2016 are presented in Table 4. Trigger levels and Emission Limit Values (ELVs) set out in the Licence are also included in Table 4. Due to very low levels of rainfall in Q-4 it was not possible to collect a surface water discharge sample.

Table 4 SW-1 Surface Water Monitoring Results 2016

Parameter	Units	Q1	Q2	Q3	Q4	Trigger Levels	Emission Limit
pH	pH units	7.489	8	7.2	NS	NA	NA
Temperature	°C	7.1	11	9.8	NS	NA	NA
Conductivity	mS/cm	0.783	0.557	0.76	NS	NA	NA
Ammonia	mg/l	5.99	6.6	<0.5	NS	NA	NA
BOD	mg/l	3.23	25	23	NS	25	NA
COD	mg/l	29.9	82	30.9	NS	NA	NA
Total Suspended Solids	mg/l	9.5	30	51	NS	35	NA
Total Nitrogen	mg/l	6.09	7.3	3.9	NS	NA	N/A
Mineral Oils	mg/l	0.436	0.882	0.288	NS	NA	5

N/A = None Available

NS – no sample due to low rainfall

3.1.4 Results Interpretation

The levels of ammonia detected at SW-1 decreased between Q-2 and Q-03 following the surface water remedial works completed by SEHL. Elevated levels of TSS were detected in Q-3. SEHL deployed a road sweeper to clean the yard area following the incident to reduce the level of solids in the discharge.

3.2 Waste Water Monitoring

Wastewater is primarily generated from vehicle and wheelie bin washing at the facility. Some wastewater is also generated from the floor of the MRF building. All wastewater is directed to a silt trap and then to a petrol/oil interceptor, before entering the municipal sewer system.

3.2.1 Monitoring Locations

Bi-monthly sewer monitoring was carried out at the monitoring point SE-1, as shown on Drawing FIG 001.

3.2.2 Monitoring Parameters

Monitoring and analysis was carried out for the parameters listed in Schedule D of the Licence.

The full wastewater laboratory analysis was carried out by ALS laboratories.

3.2.3 Monitoring Results

The results for 2016 are presented in Table 5. ELVs set out in the Licence are also included in Table 5.

Table 5 SE-1 Wastewater Monitoring Results 2016

Parameter	Units	Feb-16	Apr-16	Jun-16	Aug-16	Oct-16	Dec-16	Emission Limit
pH	pH units	6.423	7.9	6.6	6.6	6.0	7.8	6.0-10.0
Conductivity	mS/cm	0.996	0.656	0.701	0.659	0.789	0.859	N/A
Temperature	°C	6.9	11.8	12.1	11.2	9.5	8.6	42
Sulphate	mg/l	54.7	23.1	18.7	7.12	31.2	54.3	1000
BOD	mg/l	339	315	508	401	610	276	3000
COD	mg/l	404	1,440	1,210	1,930	1,330	466	6000
Total Suspended Solids	mg/l	123	1,480	444	692	908	264	2000
Oils, Fats & Greases	mg/l	9.09	50.4	90.4	39.1	59.7	30.7	100
Ammoniacal Nitrogen	mg/l	3.86	8.06	26	40.4	34.3	18.2	100
Surfactants	mg/l	0.371	0.40	0.86	0.66	0.49	0.27	100

N/A = None Available

3.2.4 Interpretation of Results

All levels detected in the reporting period were within the ELVs.

3.3 Noise Monitoring

Damian Brosnan Acoustics undertook annual noise monitoring on the 9th of June 2016. The monitoring was undertaken to measure and assess noise levels in accordance with Schedule D3 of the Licence. The measurements recorded have been used to determine compliance with the noise emission limits specified in Schedule C1 of the Licence. The noise emission limit specified in the Licence only applies to noise sensitive locations, with levels recorded at boundary locations not required to meet this limit.

Condition 6.5 of the Licence states that *“There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the noise sensitive locations.”*

Night-time monitoring was not carried out as the site is not operational during night-time hours and does not generate noise emissions during these hours.

3.3.1 Monitoring Locations

Daytime noise monitoring was undertaken at the four locations presented on Drawing FIG 001. The monitoring locations include three onsite locations (N-1, N-2 and N-3) and one off-site noise sensitive location (NSL-1) as set out in Schedule D of the Licence.

3.3.2 Monitoring Results

Results of the noise monitoring carried out are summarised in Table 6.

Table 6 Noise Monitoring Results 2016

Location	Sample Time	Daytime			
		L _{Aeq, 30 min} (dB)	L _{A10, 30 min} (dB)	L _{A90, 30 min} (dB)	Specific L _{A90, 30 min} (dB)
N1	09/06/2016 10:07-10:37	56	58	46	56
N2	09/06/2016 09:34-10:04	71	72	58	71
N3	09/06/2016 09:01-09:31	58	61	49	58
NSL1	09/06/2016 10:45-11:15	49	52	39	<39

3.3.3 Results Interpretation

L_{Aeq 30min} levels recorded at the boundary stations were 56-71 dB. SEHL emission dominated at all three. Noise limits specified in the Licence do not apply to those locations.

At the offsite sensitive station NSL1, the only station to which the Licence noise limits apply, the L_{Aeq 30min} level was 49dB. This level was not influenced by site emission, and therefore the 55dB daytime noise limit specified in the Licence was not exceeded.

SEHL operations did not give rise to tones or impulses at NSL1, thus complying with condition 6.5 of the licence.

3.4 Dust Monitoring

Dust monitoring was carried out on three occasions in 2016. The Licence requires a minimum of three yearly monitoring events to take place. The three monitoring events took place in August, September and December 2016. The measurements recorded have been used to determine compliance with the dust emission limit (350 mg/m²/d) specified in Schedule C2 of the Licence.

Bergerhoff style gauges were used to determine total dust deposition levels at the site. Four gauges were set up so that the dust jars were at a height of at least 1.5 m above the ground and the jars were set in place during the monthly monitoring event. The samples were submitted to City Analysts Laboratories Ltd. for analysis of dust contents.

3.4.1 Monitoring Locations

The dust monitoring was carried out at four on-site locations (DS-01, DS-02, DS-03 and DS-04) in 2016. The locations of these monitoring points are shown on Drawing FIG 001.

3.4.2 Monitoring Results

The results for organic, inorganic and total dust deposition for the three monitoring events which took place in September, November and December are presented in Table 7, Table 8, and Table 9 respectively. The dust emission limit set out in the Licence is also included in these tables.

Table 7 Dust Monitoring Results August 2016

Sampling Point	Organic Dust	Inorganic Dust	Total Dust
	August 2016		
	mg/m ² /day		
DS-01	20.48	14.14	34.61
DS-02	18.63	17.67	36.30
DS-03	18.40	17.73	36.13
DS-04	10.10	5.39	15.48
Limit			350

Table 8 Dust Monitoring Results September 2016

Sampling Point	Organic Dust	Inorganic Dust	Total Dust
	September 2016		
	mg/m ² /day		
DS-01	20.20	9.93	30.13
DS-02	10.49	13.07	23.56
DS-03	24.40	20.25	44.66
DS-04	Sample Contaminated with Bird Droppings		
Limit			350

Table 9 Dust Monitoring Results December 2016

Sampling Point	Organic Dust	Inorganic Dust	Total Dust
	December 2016		
	mg/m ² /day		
DS-01	12.06	53.63	65.70
DS-02	12.29	48.92	61.21
DS-03	3.93	21.71	25.64
DS-04	8.30	78.21	86.51
Limit			350

3.4.3 Interpretation of Results

No exceedances of the dust deposition limit of 350 mg/m²/day were evident from the monitoring which took place during the 2016 reporting year.

Section 4 site development works

4.1 Specified Engineering Works

No specified engineering works in accordance with those listed in Schedule B of the Licence were carried out during the 2016 reporting period. **Sara - What works were completed exactly in relation to the surface water system in 2016.**

4.2 Summary of Resource & Energy Consumption

Resources consumed at Greenogue MRF include water, diesel fuel, truck wash detergent, engine oil and electricity. Table 10 presents an estimate of the resources used on-site during 2016 as well as 2015.

Table 10 Estimates of Resources used on site – 2015 & 2016

Resource	Quantities used 2015	Quantities used 2016
Water	6,900 litres	7000 litres
Diesel	44,117 litres	35,410 litres
Engine Oil	240 litres	250 litres
Electricity	7,502 kWh	8644 kWh

4.3 Tank & Pipeline Integrity Testing

Condition 3.11.8 of the Licence requires that tank, drum, pipeline and bund testing is carried out every three years onsite.

Pipeline testing was undertaken on site in April 2016 which passed the pipelines as fit for purpose. Bund testing will be undertaken in 2017.

Section 5 Waste received and consigned from the facility

The waste processing which takes place at the facility and the maximum quantity of waste which may be processed at the facility are outlined in Section 2 of this document.

A detailed description of the wastes received and consigned in 2016 is presented in the PRTR submission in Appendix 3.

Table 11 shows the quantities of wastes accepted and consigned for the reporting period. The total quantity of waste accepted was 41,930.97 tonnes and the total amount consigned was 41,931.1 tonnes. The records show that slightly less waste was received at the site than was consigned from it. The difference is due to waste which remained onsite at the end of 2016 which will be consigned in 2017.

For comparative purposes, the quantity of waste received and consigned from 2004 to 2016 is presented in Table 13.

As per Condition 5.8 of the Licence, all waste consigned from the site went to authorised recovery and disposal facilities. A copy of the relevant Facility Permit or Waste Licenses is retained on site for Agency inspection.

Table 11 Waste Received & Consigned 2016

EWC	Description	Waste In	Waste Out
130503	Interceptor sludges		11.32
130507	Oily water from oil/water separators		12.76
150101	Paper and cardboard packaging	1,370.037	1,233.56
150102	Plastic packaging	19.275	5.76
150103	Wooden packaging	41.67	1.68
150104	Metallic packaging	2.14	
150106	Mixed packaging	732.72	2,634.4
150107	Glass Packaging	1.78	
150203	Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02		
160504	Pressurised gas containers		0.76
170504	Soils and stones other than those mentioned in 17 05 03	35.22	
170904	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	1,176.82	874.3
190102	Metal (ferrous)		

EWC	Description	Waste In	Waste Out
190801	Screenings	215.54	
190902	Sludge from water clarification	2,014.18	2,166.02
190905	Saturated or spent ion exchange resins	55.14	
191201	Mixed Packaging	4.64	
191207	Wood	0.3	
191209	Minerals (for example sand, stones)	137.14	
191210	Combustible waste RDF		66.56
191212	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	23.63	307.98
200101	Paper and cardboard	23.235	
200102	Glass	22.12	
200108	Biodegradable kitchen and canteen waste	5,293.62	4,979.22
200111	Textiles	32.582	
200138	Wood other than that mentioned in 20 01 37	3,160.79	3,373.49
200139	Plastics	15.74	
200140	Metals	497.029	618.49
200201	Biodegradable waste	1,555.89	1,311.22
200301	Mixed municipal waste	11,067.72	13,803.7
200303	Street-cleaning residues	218.84	1,009.18
200307	Bulky waste	14,213.17	9,520.62
	Total received	41,930.974	
	Total consigned		41,931.1
	Recovery		26,556.22
	Disposal		15,374.8
	Recovery Rate (%)		63.33

Table 12 Waste Received & Consigned 2015

EWC	Description	Waste In	Waste Out
130503	Interceptor sludges		7.42
130507	Oily water from oil/water separators		9.42
150101	Paper and cardboard packaging	2,341.84	2,306.06
150102	Plastic packaging	6.72	15.5
150103	Wooden packaging	86	69.06
150104	Metallic packaging	3.74	
150106	Mixed packaging	2,842.08	3,198.36
150203	Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	12.95	
170504	Soils and stones other than those mentioned in 17 05 03	25.76	142.86
170904	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	900.02	1,319.22
190102	Metal (ferrous)	1.54	
190801	Screenings	25.7	
190902	Sludge from water clarification	1,0825.42	1,0335.92
190905	Saturated or spent ion exchange resins	48.58	
191207	Wood	1.50	7.88
191209	Minerals (for example sand, stones)	71.33	
191212	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	6.98	35.2
200101	Paper and cardboard	15.36	
200102	Glass	5.2	
200108	Biodegradable kitchen and canteen waste	6,394.958	5,945.86
200138	Wood other than that mentioned in 20 01 37	1,817.72	1,842.28
200139	Plastics	3.68	
200140	Metals	536.62	559.86
200201	Biodegradable waste	1,385.071	1,111.58
200301	Mixed municipal waste	16,729.828	20,158.78
200303	Street-cleaning residues	15.18	75.5
200307	Bulky waste	11,258.598	7,830.38
	Total received	55,362.38	

EWC	Description	Waste In	Waste Out
	Total consigned		54,971.14
	Recovery		41,564.96
	Disposal		13,406.18
	Recovery Rate (%)		75.61

Table 13 Waste Received & Consigned 2004 - 2016

Description	Total Received	Total Consigned
2016	41,930.97	41,931.1
2015	55,362.38	54,971.14
2014	61,854.75	61,526.2
2013	61,315.67	61,115.86
2012	68,373.11	67,770.13
2011	67,199	66,913.50
2010	50,563.40	49,686.56
2009	52,472.47	52,051.49
2008	68,661.96	66,758.24
2007	63,481.24	60,776.28
2006	51,767.97	51,175.53
2005	1,540.48	1,400.66
2004	461.27	411.8

Section 6 Environmental incidents and complaints

6.1 Incidents

The level of total suspended solids detected at SW-1 in Q3 was greater than the applicable trigger level of 35 mg/l. The sampling took place on the 13th of October 2015, with a level of 51 mg/l being detected. This exceedance was reported to the Agency via the Eden system. Surface water flow was low on the date of sampling and thus some sediment may have been disturbed during the sampling.

It was not possible to collect a sample for the remainder of the reporting period due to extremely low levels of rainfall.

As second incident relating to elevated ammonia levels, on the 18th of February, in the surface water discharge was reported to the Agency via the Eden system. Weekly surface water sampling since has shown a reduction in ammonia levels.

6.2 Register of Complaints

Greenstar maintains a register of complaints received in accordance with Condition 10.4 of the Licence. A copy of all complaints and responses are retained on site.

No complaints were received in 2106.

Section 7 ENVIRONMENTAL DEVELOPMENT

7.1 Environmental Management System

An Integrated Management System (IMS) has been implemented by Greenstar 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.

The IMS has been developed to incorporate continual improvement, while constantly ensuring that all requirements of the Licence conditions are taken into account. Greenstar has prepared and effectively implement documented procedures and instructions in accordance with the requirements of both OHSAS 18001:2007 and ISO 14001:2004.

A list of environmental, management, operating and maintenance procedures have been developed by Greenstar as part of the IMS. Details of these procedures are outlined in Appendix 2.

The status of objectives and targets which were previously identified for 2015 and the proposed objectives and targets for 2016 are presented in Table 14 and Table 15.

7.1.1 Site Management

The management and staffing structure is outlined below:

January 2016 to September 2016

Name: Declan O'Reilly

Responsibility: Head of Leinster Collection Operations. Has overall responsibility for the running of the business, including environmental compliance.

Experience: 12 years working in the waste management industry and 16 years operational management experience. Has completed the FÁS Waste Management Course.

January 2016 to September 2016

Name: James Sowray

Responsibility: Operations Manager. Has overall responsibility for the day to day operations of the site, including environmental compliance.

Experience: 12 years working in operations management. Has completed the FÁS Waste Management Course.

Name: Jonathon O'Keeffe (Nominated Deputy)

Responsibility: Dispatch Manager

Experience: 10 years working in waste management. Has completed the FAS Waste Management Course.

Sept 2016 – to date

Name: Chris Todescu

Responsibility: Facility Manager

Experience: 15 experience in waste management. Has completed the FAS Waste Management course equivalent

7.1.2 Staff Training

Machine driver training was completed in 2106.

7.2 Environmental Management Progression and Projected Programme

7.2.1 Progression of 2015 Objectives and Targets

The objectives and targets that were achieved during this reporting period are outlined in Table 14.

7.2.2 Projected 2016 Objectives and Targets

The projected targets and objectives for 2016 are presented in Table 15.

Table 14 Progression of 2016 Objectives and Targets

No.	Objective	Target	Responsibility	Time scale
1	Increase awareness of Odour Management on site and group wide	Specify Odour detection in Site Inspection Database (EF-10A) on a daily basis and generate actions as appropriate	Site Management/EHS	On-going
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	Site Management/EHS	On-going
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.	Site Management/EHS	Completed
4	CRAMP, ELRA & Financial Provision	CRAMP, ELRA & Financial Provision to be reviewed	EHS team	Under review
5	Waste acceptance, classification & records	EWC training for all weighbridge ops. Centralisation of all licences & permits incl NWCPs for hauliers.	EHS team	On-going
6	Pipeline integrity & bund testing	Arrange for integrity testing of pipelines and bunds as per licence requirements.	Site Management/EHS	Pipeline completed and bund testing to be carried out in 2017.
7	Energy Audit	Completed energy audit as per amended licence conditions	Site Management/EHS	Completed
8	ISO 14001/OHSAS 18001 Recertification	Completion of external ISO certification audit at the facility	Site Management/EHS	Successful

Table 15 Objectives and Targets for 2017

No.	Objective	Target	Responsibility	Time scale
1	Odour management	Ensure odour management plans are followed and potential new sources of odour are identified	Site management	Q1 - Q4
2	Fire prevention	Implement recs from Fire Risk Assessments Update ERP & APP Maintain fire detection equipment	Site management/EHS team	Q1 - Q4
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	Site management/EHS team	Q1 - Q4
4	Waste acceptance, classification & records	EWC training for all weighbridge ops. Centralisation of all licences & permits inc NWCPs for hauliers.	EHS team	Q1 - Q4
5	CRAMP, ELRA & Financial Provision	CRAMP, ELRA & Financial Provision to be reviewed	EHS team	Q2
6	Lighting in MRF buildings	Clean & upgrade where required all light fittings in MRF buildings	Site management	Q3
7	NWCP exemptions	Implement NWCP exemption declarations	Site management	Q1 - Q4
8	Replace wind sock		Site management	Q2
9	Bund tests	Bund tests due	EHS team	Q1

7.3 Communications Programme

A commitment has been made by SEHL to make its Environmental, Health & Safety Policy and other relevant records available to the public and interested parties. To facilitate this, a Communications Programme has been established by SEHL. This programme details how members of the public may access environmental information at the facility.

The following records are available for public inspection onsite:

- Environmental, Health & Safety Policy
- IED Licence
- Licence Application and Review documentation
- Monitoring records
- Complaints File
- EPA Correspondence File

Members of the public may inspect any of the above records at the site between 9am and 4pm.

It is necessary to arrange visits to the site in advance of them taking place. This may be done by contacting the Facility Manager or Supervisor at 1890 600 900.

7.4 Nuisance Controls

The presence of vermin is controlled at the site by Rentokil who are contracted by Greenstar to regularly assess vermin activity and inspect all bait traps located throughout the facility. Records from Rentokil are maintained onsite.

Bird control measures are implemented at the facility. Work is carried out with the assistance of Bird Control Ireland who manage bird control at Baldoyle airfield. A speaker system and two bird repellent kites are in operation at the facility. The second of the two repellent kites was introduced into the bird control programme in 2012. The bird control measures which were implemented and adjusted in 2015 have proved effective in limiting the number of birds at the site.

An odour suppression system was installed onsite by SEHL in 2011. Further adjustments to the odour control system (rotary atomisers) were completed by PCP Group in 2015.

7.5 Waste Recovery

The facility is designed to increase the recycling of biodegradable materials and reduce the volume of waste disposed to landfill. Of the 41,931.10 tonnes of waste consigned from the facility approximately 63% was sent for recovery.

7.6 DMP, ELRA & Financial Provision

A Decommissioning Management Plan (DMP) and an Environmental Liabilities Risk Assessment (ELRA) which included a Financial Provision (FP) were approved by the Agency in 2014 and provision is currently in place with the agreement of the Agency. A further review of the decommissioning plan and the ELRA is scheduled for 2017.

7.7 Volume of Wastewater Produced and Transported Off-Site

Wastewater which has been generated from vehicle washing at the facility and the floor of the MRF building is directed to a silt trap and then to a petrol/oil interceptor before entering the municipal sewer system.

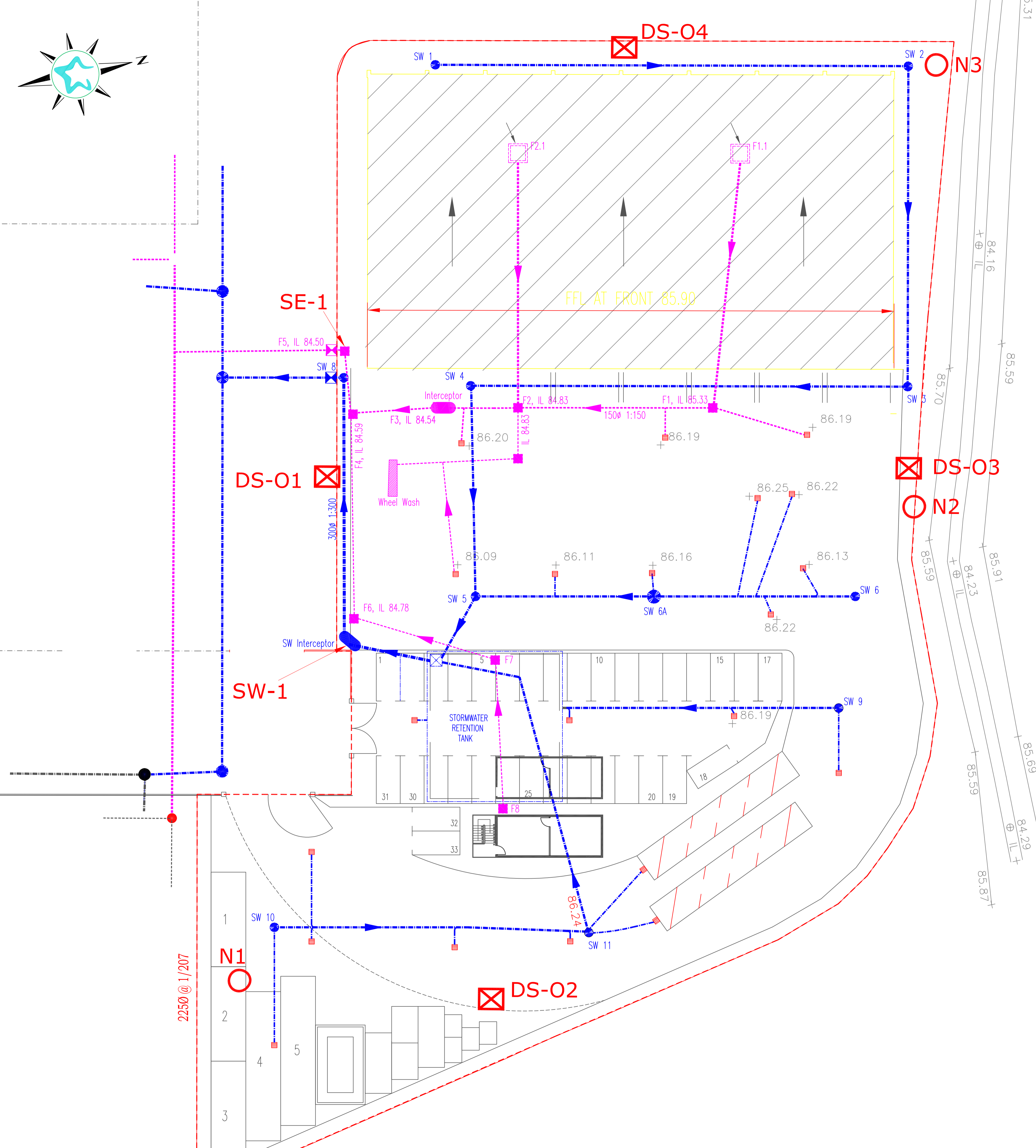
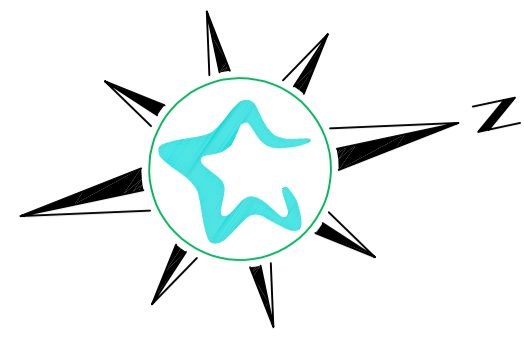
Approximately 24.08 m³ of wastewater and sludge was removed from the drainage interceptors and transported off-site during the 2016 reporting period.

Section 8 Other reports

8.1 European Pollutant Release and Transfer Register

A copy of the EPRTTR return submitted to the Agency via the web-based data reporting system is included in Appendix 3.

Appendix 1: Sampling Locations



	MANHOLE	DENOTES FOUL SEWER
		DENOTES STORM WATER SEWER
	DS-XX	DENOTES DUST WATER MONITORING POINT
	NX	DENOTES NOISE MONITORING POINT
	SE-1	DENOTES SEWER MONITORING POINT
	SW-1	DENOTES SURFACE WATER MONITORING POINT
		DENOTES SHUT OFF VALVE

NSL1 IS LOCATED OFF SITE AT GRID CO-ORDINATES;
E301433, N229185

Client			
Project GREENOGUE DRAINAGE AS-BUILT			
Location GREENOGUE INDUSTRIAL ESTATE, RATHCOOLE, CO. DUBLIN			
Title FACILITY DRAINAGE AND MONITORING POINTS			
Project No.	Checked by SS	Drawing No. FIG 001	
File No.	Reviewed by		
Created by I McC			
FOR INFORMATION PURPOSES		09/03/15	A
FOR INFORMATION PURPOSES		06/12/16	B
Description		Date	Version
Scale 1:400 A4	Date	December 2016	

Appendix 2: Integrated Management System



Doc. No.: Control	Revision No.: As Shown	Issue Date: As Shown
Approved By:	Malcolm Dowling – Group Compliance Manager	Page 1 of 5

Integrated Procedures - IP

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

Safety Procedures - SP

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



Doc. No.: Control	Revision No.: As Shown	Issue Date: As Shown
Approved By:	Malcolm Dowling – <i>Group Compliance Manager</i>	Page 2 of 5

Environmental Procedures - EP

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

Doc. No.: Control	Revision No.: As Shown	Issue Date: As Shown
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



Doc. No.: Control	Revision No.: As Shown	Issue Date: As Shown
Approved By:	Malcolm Dowling – Group Compliance Manager	Page 4 of 5

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



Doc. No.: Control	Revision No.: 01	Issue Date: 28 th April 2014
Approved By:	Malcolm Dowling – Group Compliance Manager	Page 5 of 5

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

Appendix : European Pollutant Release and Transfer Register



[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2016
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1. FACILITY IDENTIFICATION

Parent Company Name	Starrus Eco Holdings Limited
Facility Name	Starrus Eco Holdings Limited (Greenogue)
PRTR Identification Number	W0188
Licence Number	W0188-01

Classes of Activity	
No.	class_name
-	Refer to PRTR class activities below

Address 1	14B Phase 3
Address 2	Road 3A
Address 3	Greenogue Industrial Estate
Address 4	Rathcoole
	Dublin
Country	Ireland
Coordinates of Location	-6.46619 53.2936
River Basin District	IEEA
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Sara Smyth
AER Returns Contact Email Address	sara.smyth@greenstar.ie
AER Returns Contact Position	Environmental Manager
AER Returns Contact Telephone Number	086-8569414
AER Returns Contact Mobile Phone Number	086-8569414
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	8
User Feedback/Comments	Higher levels of ammonia, COD and FOG were detected in the total discharge of waste water. All levels detected in routine monitoring were within the ELVs.
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

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

4. WASTE IMPORTED/ACCEPTED ONTO SITE

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

[Guidance on waste imported/accepted onto site](#)

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

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : W0188 | Facility Name : Starrus Eco Holdings Limited (Greenogue) | Filename : W0188_2016.xls | Return Year : 2016 |

06/04/2017 14:46

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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# : W0188 | Facility Name : Starrus Eco Holdings Limited (Greenogue) | Filename : W0188_2016.xls | Return Year : 2016 |

06/04/2017 14:46

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only covers

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : W0188 | Facility Name : Starrus Eco Holdings Limited (Greenogue) | Filename : W0188_20

06/04/2017 14:46

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				
238	Ammonia (as N)	M	PER	Based on estimate of water used in wheel wash. Analysis is ISO accredited.	65.41	65.41	0.0	0.0
303	BOD	M	PER	Based on estimate of water used in wheel wash. Analysis is ISO accredited.	1224.5	1224.5	0.0	0.0
306	COD	M	PER	Based on estimate of water used in wheel wash. Analysis is ISO accredited.	3390.0	3390.0	0.0	0.0
308	Detergents (as MBAS)	M	PER	Based on estimate of water used in wheel wash. Analysis is ISO accredited.	1.5255	1.5255	0.0	0.0
314	Fats, Oils and Greases	M	PER	Based on estimate of water used in wheel wash. Analysis is ISO accredited.	139.695	139.695	0.0	0.0
343	Sulphate	M	PER	Based on estimate of water used in wheel wash. Analysis is ISO accredited.	94.56	94.56	0.0	0.0
240	Suspended Solids	M	PER	Based on estimate of water used in wheel wash. Analysis is ISO accredited.	1955.5	1955.5	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# : W0188 | Facility Name : Starrus Eco Holdings Limited (Greenogue) | Filename : W0188_2016.xls | Return Year : 2016 |

06/04/2017 14:46

SECTION A : PRTR POLLUTANTS

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

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

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

POLLUTANT		RELEASES TO LAND			Please enter all quantities in this section in KGs		
Pollutant No.	Name	M/C/E	METHOD		QUANTITY		
			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# : W0188 | Facility Name : Starrus Eco Holdings Limited (Greenogue) | Filename : W0188_2016.xls | Return Year : 2016]

06/04/2017 14:46

Please enter all quantities on this sheet in Tonnes

28

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Address of Next Destination Facility	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		Haz Waste : Name and Licence/Permit No of Recover/Disposer	Non Haz Waste : Address of Recover/Disposer			
Within the Country	13 05 03	Yes	11.32	interceptor sludges	R13	M	Weighed	Offsite in Ireland	Rita Environmental Ltd ,W0192-03 Greenogue Business Park ,Rathcoole Co Dublin ,ireland	Greenogue Business Park ,Rathcoole ,Co Dublin ,,ireland	Rita Environmental Ltd ,W0192-03,Greenogue Business Park ,Rathcoole ,Co Dublin ,,ireland	Greenogue Business Park ,Rathcoole ,Co Dublin ,,ireland	
Within the Country	13 05 07	Yes	12.76	oily water from oil/water separators	R13	M	Weighed	Offsite in Ireland	Rita Environmental Ltd ,W0192-03 Greenogue Business Park ,Rathcoole Co Dublin , ireland	Greenogue Business Park ,Rathcoole ,Co Dublin ,,ireland	Rita Environmental Ltd ,W0192-03,Greenogue Business Park ,Rathcoole ,Co Dublin ,,ireland	Greenogue Business Park ,Rathcoole ,Co Dublin ,,ireland	
Within the Country	15 01 01	No	649.3	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland			
Within the Country	15 01 01	No	521.4	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd,W0183-01	Millennium Park,Ballycoolin, Dublin 11,,Ireland	Unit 2B Kylemore Industrial Estate,Killen Road,Ballyfermot,Dublin 10,Ireland		
Within the Country	15 01 01	No	62.86	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Rebox Recycling,CP D95/1 Leinster Environmental/Eco WM Ltd ,WFP-LH-09-0004-01 Dundalk Louth - - ireland				
Within the Country	15 01 02	No	5.76	plastic packaging	R13	M	Weighed	Offsite in Ireland		Dundalk,Louth,-,,ireland	Sean Fox's Yard,Coolquay,The Ward,Co,Dublin,Ireland		
Within the Country	15 01 03	No	1.68	wooden packaging	R3	M	Weighed	Offsite in Ireland	Grey Stag T/A Euro Pallets Solutions,Meath		Merrywell Industrial Estate ,Ballymount Road Lower ,Ballymount ,Dublin 12 Dublin,,Ireland		
Within the Country	15 01 06	No	1248.34	mixed packaging	R13	M	Weighed	Offsite in Ireland	Dublin City Council/Ballymount MRF (Merrywell),W0238-01		Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland		
Within the Country	15 01 06	No	1386.06	mixed packaging	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03		Long Mile Rd ,Drimnagh ,Dublin,-,Ireland	Long Mile Rd ,Drimnagh ,Dublin,-,Ireland	
Within the Country	16 05 04	Yes	0.76	halons containing dangerous substances	R4	M	Weighed	Offsite in Ireland	calor gas,-		calor gas,-		
Within the Country	17 09 04	No	739.9	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03		Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland		
Within the Country	17 09 04	No	117.22	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	R13	M	Weighed	Offsite in Ireland	Panda,W0140-02		Nurendale (Rathdinagh) ,Rathdrinagh ,Beauparc ,Navan County Meath,,Ireland		
Within the Country	17 09 04	No	17.18	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	R13	M	Weighed	Offsite in Ireland	Panda,W039-02		Ballymount Cross,Tallaght,Dublin 24,-,ireland		
Within the Country	19 09 02	No	712.12	sludges from water clarification	R3	M	Weighed	Offsite in Ireland	Enva,W0184-02		Enva Ireland Limited (Portlaoise) ,Clonminam Industrial Estate ,Portlaoise ,County Lacs,,Ireland		
Within the Country	19 09 02	No	1453.9	sludges from water clarification	D5	M	Weighed	Offsite in Ireland	Knockharley Landfill Ltd,W0146-01		Knockharley Landfill ,Kentstown ,Co Meath ,,,ireland		
Within the Country	19 12 10	No	66.56	combustible waste (refuse derived fuel)	R13	M	Weighed	Offsite in Ireland	Panda,W0140-02		Nurendale (Rathdinagh) ,Rathdrinagh ,Beauparc ,Navan County Meath,,Ireland		

Within the Country	19 12 12	No	12.38 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland
Within the Country	19 12 12	No	295.6 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R13	M	Weighed	Offsite in Ireland	Panda,W0140-02	Nurendale (Rathdinagh) , Rathdrinagh ,Beauparc ,Navan County Meath.,Ireland - ,Ballynalurgan
Within the Country	20 01 08	No	2600.4 biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Thorntons Kilmainhamwood Compost ,W0195-02	,Kilmainhamwood , Kells Co Meath.,ireland
Within the Country	20 01 08	No	2378.82 biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd ,WP-008-02	Lawlesstown , Clonmel ,Co. Tipperary -,ireland
Within the Country	20 01 38	No	1235.27 wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland
Within the Country	20 01 38	No	2113.64 wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd ,WP-008-02	Lawlesstown , Clonmel ,Co. Tipperary -,ireland
Within the Country	20 01 38	No	24.58 wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	Panda,W0140-02	Nurendale (Rathdinagh) , Rathdrinagh ,Beauparc ,Navan County Meath.,Ireland
Within the Country	20 01 40	No	82.26 metals	R4	M	Weighed	Offsite in Ireland	Davis Recycling Ltd.,W0134-01	10 The Anchorage Business Park,Charlotte Quay,Dublin 4,,Ireland
Within the Country	20 01 40	No	536.23 metals	R4	M	Weighed	Offsite in Ireland	Multi Metals Recycling Ltd,WFP-WW-09-0014-01	Blessington,Co Wicklow,,.,Ireland
Within the Country	20 02 01	No	209.44 biodegradable waste	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd ,WP-008-02	Lawlesstown , Clonmel ,Co. Tipperary -,ireland
Within the Country	20 02 01	No	230.72 biodegradable waste	R3	M	Weighed	Offsite in Ireland	Enrich Environmental,WMP 2004/57	Kilcock Co. Kildare,,.,.,Ireland
Within the Country	20 02 01	No	871.06 biodegradable waste	R3	M	Weighed	Offsite in Ireland	Bord na Mona Composting ,W0198-01	Kilberry Athy ,Co Kildare,-,- ,ireland
Within the Country	20 03 01	No	132.7 mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland
Within the Country	20 03 01	No	2716.78 mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Bord Na Mona PLC,W0201-03	Drehid Landfill,Drehid ,Co. Kildare,,Ireland
Within the Country	20 03 01	No	7671.9 mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Ltd,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland
Within the Country	20 03 01	No	81.82 mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Dublin City Council/Ballymount MRF (Merrywell),W0238-01	Merrywell Industrial Estate ,Ballymount Road Lower ,Ballymount ,Dublin 12 Dublin,,Ireland
Within the Country	20 03 01	No	630.12 mixed municipal waste	R1	M	Weighed	Offsite in Ireland	Indaver IWMF ,W0167-02	Carranstown ,Duleek,Co Meath - ireland
Within the Country	20 03 01	No	2441.26 mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Carranstown Duleek Co Meath - ireland	Carranstown ,Duleek,Co Meath,-,ireland
Within the Country	20 03 01	No	129.16 mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Knockharley Landfill Ltd,W0146-01	Knockharley Landfill ,Kentstown ,Co Meath ,,ireland
Within the Country	20 03 01	No	876.54 street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Ltd,W0165-02	Ballymount Ballymount Cross,Tallaght,Dublin 24,- ,ireland
Within the Country	20 03 03	No	132.64 street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Knockharley Landfill Ltd,W0146-01	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,Ireland
Within the Country	20 03 07	No	9414.84 bulky waste	R13	M	Weighed	Offsite in Ireland	Knockharley Landfill Ltd,W0146-01	Knockharley Landfill ,Kentstown ,Co Meath ,,ireland
Within the Country	20 03 07	No	18.4 bulky waste	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland
Within the Country	20 03 07	No	18.4 bulky waste	R13	M	Weighed	Offsite in Ireland	Nurendale Limited,W0261-02	Cappagh Road ,Cappogue , Finglas ,Dublin 11 ,Ireland

Within the Country	20 03 07	No	87.38 bulky waste	R13	M	Weighed	Offsite in Ireland	Panda,W0140-02	Nurendale (Rathdinagh) , Rathdrinagh ,Beauparc ,Navan County Meath.,Ireland
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