STARRUS ECO HOLDINGS LTD (GREENSTAR) – GREENOGUE WASTE TRANSFER FACILITY, GREENOGUE INDUSTRIAL ESTATE, RATHCOOLE, CO. DUBLIN

ANNUAL ENVIRONMENTAL REPORT 2015

INDUSTRIAL EMISSIONS LICENCE REF. NO. W0188-01

MARCH 2016

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REVISION CONTROL TABLE, CLIENT, KEYWORDS AND ABSTRACT

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Abstract: This report represents the monitoring results for the Greenogue Waste Transfer Facility, Greenogue Industrial Estate, Rathcoole, Co. Dublin. This report covers the annual reporting period of 2015 in accordance with Industrial Emissions Licence Reg. No. W0188-01.

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1 INTRODUCTION

1.1. Reporting Period

This is the 2015 Annual Environmental Report (AER) for the Starrus Eco Holdings Ltd (Greenstar), 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 2015 to the 31st December 2015.

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.

This report has been prepared in accordance with Condition 11.4 of the IED licence, which requires an Annual Environmental Report (AER) for the facility to be submitted to the EPA.

2 SITE DESCRIPTION

2.1 Facility Location

The facility is located within the Greenogue Industrial Estate, Rathcoole, Co. Dublin, 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 Waste Activities at the Facility

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 IED licence.

2.2.1 Waste Types

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

Table 2.1: 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
- 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.

Greenstar 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 2.2. The plant provides 100% duty capacity and 50% standby capacity for waste processing.

Table 2.2: Existing Onsite Plant and Machinery

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

3 EMISSION MONITORING

The monitoring required for the facility includes monitoring of surface water, wastewater, dust and noise. Monitoring of these media is carried out at various frequencies in accordance with Schedule D of the IED 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 IED licence:

Table 3.1: 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 Figure 3.1. An overview of the results of monitoring carried out at the facility in 2015 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 the 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 Figure 3.1.

Monitoring of ammonia was carried out on a weekly basis during 2015 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 2015. This reduction was likely due to works which were carried out in November 2014 to divert a surface water gulley located onsite from the surface water drainage system to the wastewater drainage system. The water flowing through this surface water gulley was suspected to have been a potential source of the elevated ammonia levels recorded during 2014.

3.1.2 Monitoring Parameters and Analysis

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

The full surface water laboratory analysis was carried out by Jones Environmental (Q1 2015) and Alcontrol Laboratories (Q2, Q3 & Q4 2015).

3.1.3 Monitoring Results

The results for Q1, Q2, Q3 and Q4 in 2015 are presented in Table 3.2. Trigger levels and Emission Limit Values (ELVs) set out in the IED licence are also included in Table 3.2.

Table 3.2: SW-1 Surface Water Monitoring Results 2015

Parameter	Units	Q1	Q2	Q3	Q4	Trigger Levels	Emission Limit
pH	pH units	7.56	6.97	6.12	7.26	N/A	N/A
Temperature	°C	7.6	14.7	16.8	13.6	N/A	N/A
Conductivity	mS/cm	0.707	0.737	0.583	0.616	N/A	N/A
Total Ammonia*	mg/l	1.79	3.05	0.957	1.04	N/A	N/A
BOD	mg/l	3	3.12	<1	7.53	25	N/A
COD	mg/l	12	89.3	14.5	64.5	N/A	N/A
Total Suspended Solids	mg/l	<10	85	18	42	35	N/A
Total Nitrogen	mg/l	3	4.38	2.78	4.16	N/A	N/A
Mineral Oils	mg/l	<0.01	0.505	0.198	2.45**	N/A	5

N/A = None Available
* = Total Ammonia is reported, but tested as Ammoniacal Nitrogen as NH3
** = Mineral Oils >C10 C40 (aq)

3.1.4 Interpretation of Results

Results for Q1, Q2, Q3 and Q4 were compared to relevant trigger levels for surface water parameters set in Condition 6.3.2 of the IED licence and relevant ELVs for surface water parameters set in Schedule C3 of the IED licence. Exceedances of relevant trigger levels and ELVs were noted during the reporting period.

The level of total suspended solids detected at SW-1 in Q2 (85 mg/l) and Q4 (42 mg/l) were greater than the applicable trigger level of 35 mg/l. The exceedance recorded for Q2 was reported to the Agency via the Eden system as incident no. INCI008089. Surface water flow was low at the time of sampling during Q2 and thus some sediment may have been disturbed during the sampling. The Q4 result was incorrectly assumed not to be an exceedance as it was not in excess of 1.2 times the limit, and was therefore not reported as an incident.

Results for surface water monitoring at SW-1 during 2015 show that the quality of surface water has remained broadly similar or improved for some parameters since 2014. The improvements to the drainage system in 2014 have helped in the management of surface water emissions.

3.2 Wastewater Monitoring

Wastewater is primarily generated from vehicle washing at the facility. Some wastewater is also generated from the floor of the WTF 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 Figure 3.1.

3.2.2 Monitoring Parameters

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

The full wastewater laboratory analysis was carried out by Jones Environmental (Q1 2015) and Alcontrol Laboratories (Q2, Q3 & Q4 2015).

3.2.3 Monitoring Results

The results for Q1, Q2, Q3 and Q4 in 2015 are presented in Table 3.3. ELVs set out in the IED licence are also included in Table 3.3.

Table 3.3: SE-1 Wastewater Monitoring Results 2015

Parameter	Units	Mar-15	Apr-15	Jun-15	Aug-15	Oct-15	Dec-15	Emission Limit
pH	pH units	6.73	5.98	6.15	6.52	6.419	6.687	6.0-10.0
Conductivity	mS/cm	0.798	0.899	2.64	1.892	1.092	0.677	N/A
Temperature	°C	6.5	10.9	14.4	16.1	13.3	10.8	42
Sulphate	mg/l	79.21	59.6	21.9	<2	15	27.7	1000
BOD	mg/l	125	546	979	882	220	177	3000
COD	mg/l	291	1080	1390	1960	736	555	6000
Total Suspended Solids	mg/l	640	228	272	2310	260	242	2000
Oils, Fats & Greases	mg/l	<0.01	16.8	39.8	107	25.7	13.1	100
Ammoniacal Nitrogen	mg/l	0.61	8.55	35.9	30.4	12.9	4.4	100
Surfactants	mg/l	0.3	0.531	0.825	1.35	0.41	0.41	100

N/A = None Available

3.2.4 Interpretation of Results

Results for the bi-monthly monitoring were compared to applicable ELVs for wastewater set in Schedule C4 of the IED licence. For the most part, results for the 2015 monitoring period were within ELVs.

The recorded pH level in April 2015 (5.98) was slightly below the emission limit range of 6.0-10.0.

Recorded levels of total suspended solids (2310 mg/l) and oils, fats & greases (107 mg/l) were in exceedance of the applicable ELVs for these parameters in August 2015. The exceedances noted did not constitute an incident as per Condition 6.7 of the site waste licence, as they were not 1.2 times the ELV. The levels of these parameters recorded in October 2015 and December 2015 returned to more acceptable values which were within the applicable ELVs.

3.3 Noise Monitoring

Annual noise monitoring was undertaken on the 4th of June 2015. The monitoring was undertaken to measure and assess noise levels in accordance with Schedule D3 of the IED licence. The measurements recorded have been used to determine compliance with the noise emission limits specified in Schedule C1 of the IED 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 IED 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 Figure 3.1. 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 IED licence.

3.3.2 Monitoring Results

Results of the noise monitoring carried out are summarised in Table 3.4.

Table 3.4: Noise Monitoring Results 2015

Location	Sample Time	Daytime		
		$L_{Aeq,\ 30\ min}$ (dB)	$L_{A10,\ 30\ min}$ (dB)	$L_{A90,\ 30\ min}$ (dB)
N1	04/06/2015 16:32	53.7	56.1	47.1
N2	04/06/2015 15:37	68.2	70.4	61.7
N3	04/06/2015 15:04	61.2	64.6	54.0
NSL1	04/06/2015 17:08	55.7	59.9	45.2

3.3.3 Interpretation of Results

Boundary Locations

The daytime limit value of 55dB(A) is only applicable to noise sensitive locations. Therefore, the following descriptions of boundary noise levels are not required to comply with the daytime limit.

The L_{Aeq} value recorded at N1 was less than the daytime limit value of 55 dB(A), with both on-site and off-site noise sources contributing to the measured noise level.

The L_{Aeq} values at boundary locations N2 and N3 were 68.2 and 61.2 respectively. On-site noise sources (plant and truck vehicles) were dominant at N2, whereas off-site noise sources were dominant at N3.

Noise Sensitive Location

At NSL1, the 30-minute L_{Aeq} value was 55.7 dB. While this value slightly exceeds the daytime limit of 55dB(A), this limit value relates to specific noise emissions from the Greenogue site. Contemporaneous notes at this location identified that road traffic was the dominant noise source and that the noise level resulting from the site would be less than the L_{AEq} value measured. It is therefore reasonable to consider that the site is compliant with the daytime limit value.

As there were no clearly audible tonal or impulsive characteristics of site noise at the noise sensitive location the site is considered to be compliant with Condition 6.5 of the IED licence.

3.4 Dust Monitoring

Dust monitoring was carried out on three occasions in 2015. The IED licence requires a minimum of three yearly monitoring events to take place. The three monitoring events took place in September, November and December 2015. The measurements recorded have been used to determine compliance with the dust emission limit (350 mg/m2/d) specified in Schedule C2 of the IED 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 2015. The locations of these monitoring points are shown on Figure 3.1.

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 3.5, Table 3.6, and Table 3.7 respectively. The dust emission limit set out in the IED licence is also included in these tables.

Table 3.5: Dust Monitoring Results September 2015

Sampling Point	Organic Dust	Inorganic Dust	Total Dust
	September 2015		
	mg/m²/day		
DS-01	13.58	9.43	23
DS-02	23.17	8.86	32.03
DS-03	27.38	83.70	111.08
DS-04	3.98	3.14	7.12
Limit			**350**

Table 3.6: Dust Monitoring Results November 2015

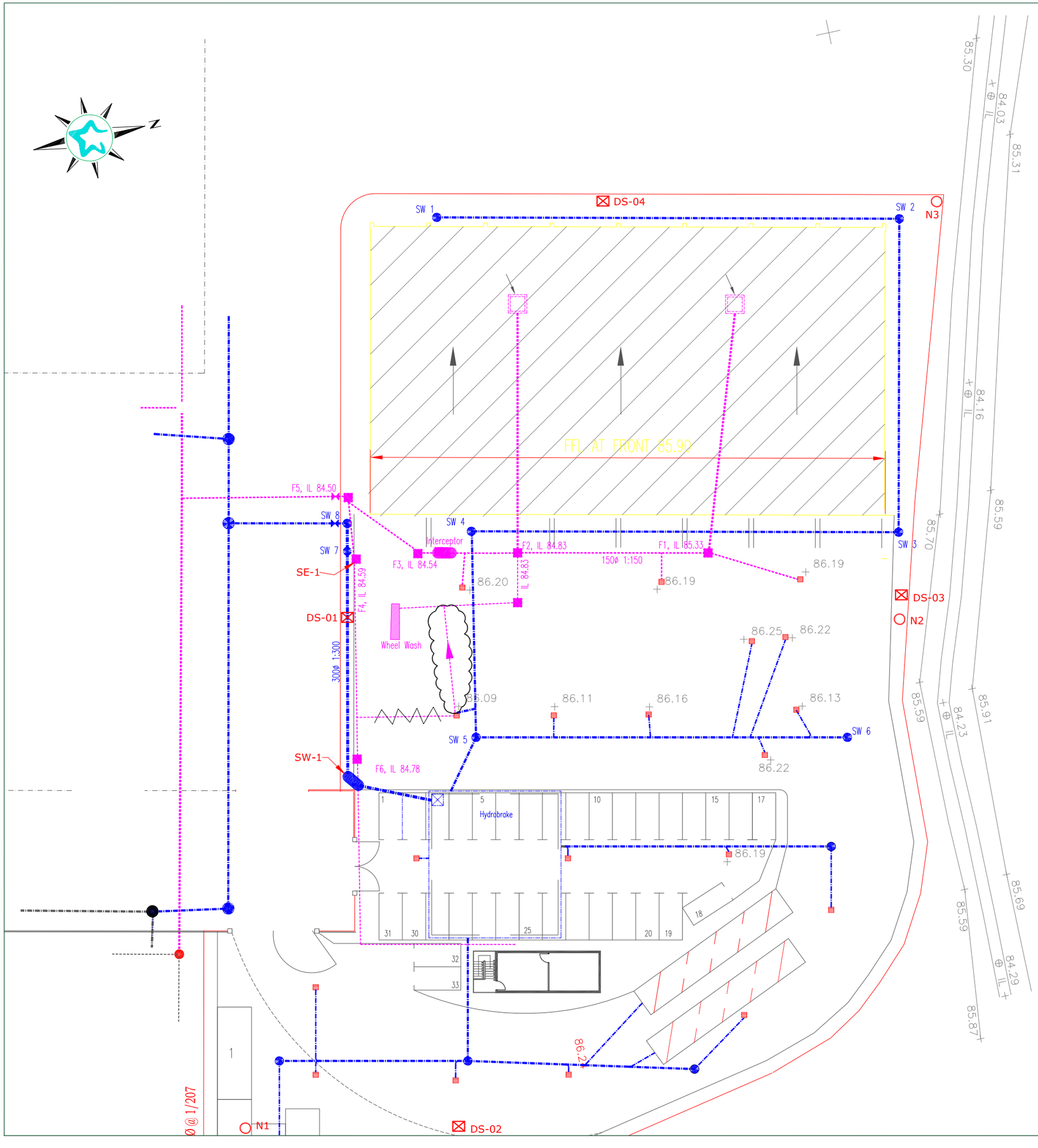
Sampling Point	Organic Dust	Inorganic Dust	Total Dust
	November 2015		
	mg/m²/day		
DS-01	7.18	4.88	12.06
DS-02	4.43	14.25	18.68
DS-03	4.10	7.41	11.50
DS-04	6.56	12.45	19.02
Limit			**350**

Table 3.7: Dust Monitoring Results December 2015

Sampling Point	Organic Dust	Inorganic Dust	Total Dust
	December 2015		
	mg/m²/day		
DS-01	3.81	14.75	18.57
DS-02	8.81	10.72	19.52
DS-03	5.72	10.66	16.38
DS-04	1.57	4.71	6.28
Limit			**350**

3.4.3 Interpretation of Results

No exceedances of the dust deposition limit of 350 mg/m^2/day were evident from the monitoring which took place during the 2015 reporting year.



MANHOLE	DENOTES FOUL SEWER
	DENOTES PROPOSED GULLY INTERCEPTION
	DENOTES STORM WATER SEWER
DS-XX	DENOTES DUST MONITORING POINTS
NX	DENOTES NOISE MONITORING POINT
SE-1	DENOTES SEWER MONITORING POINTS
SW-1	DENOTES SURFACE WATER MONITORING POINT

NSL1 IS LOCATED OFF SITE AT GRID:
E301433, N229185

Client greenstar

Project
GREENOGUE DRAINAGE AS-BUILT

Location
GREENOGUE INDUSTRIAL ESTATE, RATHCOOLE, CO. DUBLIN

Title
FACILITY DRAINAGE AS-BUILT

Project No.	Checked by SS	Drawing No.
File No.	Reviewed by	FIG 001
Created by I McC		

FOR INFORMATION PURPOSES	09/03/15	A
Description	Date	Version

Scale 1:400 A4 Date March 2015


NSL1
N
N3
N2
N1
Greenstar boundary

4 SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

No specified engineering works in accordance with those listed in Schedule B of the IED licence were carried out during the 2015 reporting period.

4.2 Summary of Resource & Energy Consumption

Resources consumed at the Greenogue WTF include water, diesel fuel, truck wash detergent, engine oil and electricity. Table 4.1 presents an estimate of the resources used on-site during 2015 as well as 2014.

Table 4.1: Estimates of Resources used on site – 2014 & 2015

Resource	Quantities used 2014	Quantities used 2015
Water	7,200 litres	6,900 litres
Diesel	34,096 litres	44,117 litres
Truck Wash	225 kg	230 kg
Engine Oil	220 litres	240 litres
Electricity	6,800 kWh	7,502 kWh

4.3 Tank & Pipeline Integrity Testing

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

The 2 no. onsite interceptors were tested by Tobin Consulting Engineers in February 2013 and passed fit for purpose. A report was submitted to the Agency in March 2013.

A CCTV survey of both the wastewater and surface water drainage systems was carried out in April 2013. The pipelines were passed fit for purpose. A report was submitted to the Agency in May 2013.

Bund integrity testing was also completed in April 2013 in compliance with Condition 3.10.5 of the IED licence. Findings were that the integrity and water-tightness of each bund was sound and that each bund was fit for purpose. A report was submitted to the Agency.

Further tank, drum, pipeline and bund testing was not required to be completed in 2015, but is due to be carried out in 2016.

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 2015 is presented in the PRTR submission in Appendix 1.

Table 5.1 shows the quantities of wastes accepted and consigned for the reporting period. The total quantity of waste accepted was 55,362 tonnes and the total amount consigned was 54,971 tonnes. The records show that more waste was received at the site than was consigned from it. The difference is due to waste which remained onsite at the end of 2015 which will be consigned in 2016.

For comparative purposes, the quantity of waste received and consigned from 2004 to 2015 is presented in Table 5.3.

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 Licences is retained on site for Agency inspection.

Table 5.1: 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	

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

Table 5.2: Waste Received & Consigned in 2014

EWC	Description	Waste In	Waste Out
080399	wastes not otherwise specified	0.20	
130503	interceptor sludge		22.30
150101	paper and cardboard packaging	2,416.46	2,421.70
150102	Plastic Packaging	13.46	38.13
150103	wooden packaging	82.12	588.76
150104	metallic packaging	4.67	
150105	Composite Packaging	8.06	
150106	mixed packaging	3,777.62	3,484.70
150203	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	27.28	
170203	plastic	3.08	
170504	soil and stones other than those mentioned in 17 05 03	43.05	2,713.54
170802	gypsum-based construction materials other than those mentioned in 17 08 01	5.16	
170904	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	2,016.26	
190902	sludge from water clarification	11,363.80	11,157.28
190905	saturated or spent ion exchange resins	38.66	
191204	plastic and rubber	1.08	
191209	minerals (for example sand, stones)	132.68	
191210	combustible waste (refuse derived fuel)	4.40	

EWC	Description	Waste In	Waste Out
191212	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	36.43	15.72
200101	paper and cardboard	52.08	14.04
200102	glass	3.26	
200108	biodegradable kitchen and canteen waste	6,329.55	5,815.08
200138	wood other than that mentioned in 20 01 37	1,310.42	861.98
200139	plastics	31.86	4.82
200140	metals	272.09	296.96
200201	biodegradable waste	1,472.76	1,304.44
200301	mixed municipal waste	19,727.94	25,072.63
200303	street-cleaning residues	77.34	
200307	bulky waste	12,602.98	7,714.12
	Total Received	**61,854.75**	
	Total Consigned		**61,526.20**
	Recovery		**50,523.52**
	Disposal		**11,002.68**
	Recovery Rate (%)		**82.11**

Table 5.3: Previous Waste Consignments

Description	Total Received	Total Consigned
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

6 ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

The level of total suspended solids detected at SW-1 in Q2 was greater than the applicable trigger level of 35 mg/l. The sampling took place on the 4th of June 2015, with a level of 85 mg/l being detected. This exceedance was reported to the Agency via the Eden system as incident no. INCI008089. Surface water flow was low on the date of sampling and thus some sediment may have been disturbed during the sampling. The result for total suspended solids detected in the following round of monitoring (Q3 – August 2015) was 18 mg/l.

The levels of ammonia recorded during the weekly monitoring in December 2015 were elevated. Ammonia levels recorded on the 1st of December 2015 (3.9 mg/l), 7th of December 2015 (3.75 mg/l) and 11th of December 2015 (3.03 mg/l) were in exceedance of normal levels. The elevated levels were reported to the Agency via the Eden system as incident no. INCI009327.

6.2 Register of Complaints

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

There were no reported complaints to the Agency in 2015. Direct contact was made with Facility Management on three occasions in relation to potential odour from site activity. On each occasion, the matter was investigated fully and alternative off-site sources including an additional nearby waste facility were identified as more likely sources.

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 IED 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 7.1 and Table 7.2.

7.1.1 Site Management

The management and staffing structure is outlined below:

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 FÀS Waste Management Course.
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 FÀS Waste Management Course.
Name:	Jonathon O'Keeffe (Nominated Deputy)
Responsibility:	Dispatch Manager
Experience:	10 years working in waste management. Has completed the FÀS Waste Management Course.

7.1.2 Staff Training

Two staff members completed a Waste Management Training Programme in 2015.

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 7.1.

7.2.2 Projected 2016 Objectives and Targets

The projected targets and objectives for 2016 are presented in Table 7.2.

Table 7.1: Progression of 2015 Objectives and Targets

No.	Objective	Target	Responsibility	Time scale
1	**Document a Preventative Maintenance (PM) plan for the inspection and cleaning of plant & equipment wrt fire**	Incorporate into existing Site Inspection Database (EF-10A) and site specific PM plans	**Site Management/EHS**	On-going, site specific PM plans currently under review
2	**Document PM plan for all hardstand and drainage infrastructure on site**	Incorporate into existing Site Inspection Database (EF-10A)	**Site Management/EHS**	Completed
3	**Review EWC codes in active use group wide and implement recommendations at each site**	Review EWC codes with Finance/WIMS & advise changes to site management	**EHS/Finance/WIMS**	Completed
4	**Increase awareness of Odour Management on site group wide**	Specify Odour detection in Site Inspection Database (EF-10A) on a daily basis and generate actions as appropriate. Apply for funding for additional odour suppression infrastructure if necessary	**Site Management/EHS**	Completed
5	**Track Energy Usage on site**	Record electricity, gas, water and fuel consumption on site group wide	**Site Management/EHS**	Ongoing
6	**Review Bird Control Measures**	Re-assess current bird control measures and implement additional if necessary	**Site Management/EHS**	Various different measures implemented during the year
7	**Environmental Training**	Two staff members to complete waste management training programme	**Site Management/EHS**	Completed, 2 staff members trained
8	**Setting of Surface Water trigger levels**	Complete surface water investigation and submit required data and proposed trigger level to EPA for approval	**Site Management/EHS**	On-going - CI in place to resolve on-going SW issues

Table 7.2: Projected 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	Q1-Q2
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	Q2
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	Q2
4	**CRAMP, ELRA & Financial Provision**	CRAMP, ELRA & Financial Provision to be reviewed	EHS team	Q2/Q3
5	**Waste acceptance, classification & records**	EWC training for all weighbridge ops. Centralisation of all licences & permits incl NWCPs for hauliers.	EHS team	Q2/Q3
6	**Pipeline integrity & bund testing**	Arrange for integrity testing of pipelines and bunds as per licence requirements.	Site Management/EHS	Q2/Q3
7	**Energy Audit**	Completed energy audit as per amended licence conditions	Site Management/EHS	Q4
8	**ISO 14001/OHSAS 18001 Recertification**	Completion of external ISO certification audit at the facility	Site Management/EHS	Q4

7.3 Communications Programme

A commitment has been made by Greenstar to make its Environmental, Health & Safety Policy and other relevant records available to the public and interested parties. To facilitate this, a Communications Prgramme has been established by Greenstar. 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 whcih have been implemented and which were adjusted in 2015 have proved effective in limiting the number of birds at the site.

An odour control system was installed onsite by Greenstar 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 54,971 tonnes of waste consigned from the facility approximately 75% 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 decommisoning plan and the ELRA is scheduled for 2016.

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 WTF building is directed to a silt trap and then to a petrol/oil interceptor before entering the municipal sewer system.

Approximately 47.68 m^3 of wastewater was removed from the drainage interceptors and transported off-site during the 2015 reporting period.

8 OTHER REPORTS

8.1 European Pollutant Release and Transfer Register

A copy of the EPRTR return submitted to the Agency via the web-based data reporting system is included in Appendix 1.

APPENDIX 1

European Pollutant Release and Transfer Register

Environmental Protection Agency

Guidance to completing the PRTR workbook

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2015

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	Malcolm Dowling
AER Returns Contact Email Address	malcolm.dowling@greenstar.ie
AER Returns Contact Position	Group Compliance Manager
AER Returns Contact Telephone Number	012947976
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	8
User Feedback/Comments	Surface water trigger level limits for total suspended solids were exceeded at times during 2015. Elevated levels of ammonia were alos recorded during the December weekly surface water monitoring in 2015. The above occurrances were reported to the Agency
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) ?	

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

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

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

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

* 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: Method Code	Method Used: Designation or Description	Facility Total Capacity m3 per hour	
Total estimated methane generation (as per site model)	0.0				N/A	
Methane flared	0.0				0.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0				N/A	

4.2 RELEASES TO WATERS

Link to previous years emissions data

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 concerns Releases from your facili

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

* 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

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			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

SECTION B : REMAINING 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			
			Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
238	Ammonia (as N)	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited.	30.92	30.92	0.0	0.0
303	BOD	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited.	976.33	976.33	0.0	0.0
306	COD	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited.	2004.0	2004.0	0.0	0.0
308	Detergents (as MBAS)	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited.	1.27	1.27	0.0	0.0
314	Fats, Oils and Greases	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited.	67.47	67.47	0.0	0.0
343	**Sulphate**	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited.	68.47	68.47	0.0	0.0
240	Suspended Solids	M	PER	Based on an estimate of water used in the wheel wash. Analysis is ISO accredited.	1317.33	1317.33	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

SECTION A : PRTR POLLUTANTS

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

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

Please enter all quantities on this sheet in Tonnes

0

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 Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	13 05 03	Yes	7.42	interceptor sludges	R13	M	Weighed	Offsite in Ireland	Rilta Environmental Ltd ,W0192-03 Greenogue Business Park Rathcoole Co Dublin . ireland	Greenogue Business Park ,Rathcoole ,Co Dublin ,.,ireland	Rilta 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	9.42	oily water from oil/water separators	R13	M	Weighed	Offsite in Ireland	Rilta Environmental Ltd ,W0192-03 Greenogue Business Park Rathcoole Co Dublin . ireland	Greenogue Business Park ,Rathcoole ,Co Dublin ,.,ireland	Rilta 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	686.48	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	108.0	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd,W0183-01	Millennium Park,Ballycoolin, Dublin 11,.,Ireland		
Within the Country	15 01 01	No	1353.0	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd,W0183-01	Millennium Park,Ballycoolin, Dublin 11,.,Ireland		
Within the Country	15 01 01	No	158.58	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Rebox Recycling,CP D95/1	Unit 2B Kylemore Industrial Estate,Killen Road,Ballyfermot,Dublin 10,Ireland		
Within the Country	15 01 02	No	2.48	plastic packaging	R13	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd,W0183-01	Millennium Park,Ballycoolin, Dublin 11,.,Ireland		
Within the Country	15 01 02	No	10.4	plastic packaging	R13	M	Weighed	Offsite in Ireland	Leinster Environmental/Eco WM Ltd ,WFP-LH-09-0004-01 Dundalk Louth - - ireland	Dundalk,Louth,-,-,ireland		
Within the Country	15 01 02	No	2.62	plastic packaging	R13	M	Weighed	Offsite in Ireland	Leinster Environmental/Eco WM Ltd ,WFP-LH-09-0004-01 Dundalk Louth - - ireland	Dundalk,Louth,-,-,ireland		
Within the Country	15 01 03	No	10.5	wooden packaging	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd ,WP-008-02	Lawlesstown , Clonmel ,Co. Tipperary ,-,ireland		
Within the Country	15 01 03	No	58.56	wooden packaging	R3	M	Weighed	Offsite in Ireland	Max Pallet Services Ltd,Licence - exempt	Johnston Bridge,Enfield,Co Meath,.,Ireland		
Within the Country	15 01 06	No	3198.36	mixed packaging	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland		
Within the Country	17 05 04	No	142.86	soil and stones other than those mentioned in 17 05 03	R5	M	Weighed	Offsite in Ireland	Kilbracken,COR-LS-09-001-01	Kilbracken,Fisherstown,County Laois,.,ireland		
Within the Country	17 09 04	No	1319.22	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	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland		
Within the Country	19 09 02	No	6904.52	sludges from water clarification	R3	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	19 09 02	No	3208.74	sludges from water clarification	R3	M	Weighed	Offsite in Ireland	Greenstar Ltd ,W0146-01	Knockharley Landfill ,Kentstown ,Co Meath ,.,ireland		
Within the Country	19 09 02	No	222.66	sludges from water clarification	R3	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland		
Within the Country	19 12 07	No	7.88	wood other than that mentioned in 19 12 06 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd ,WP-008-02	Lawlesstown , Clonmel ,Co. Tipperary ,-,ireland		
Within the Country	19 12 12	No	35.2		R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland		
Within the Country	20 01 08	No	3296.1	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 08	No	40.44	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Ormonde Organics,W0287-01	Kilowen,Portlaw,Waterford,Co. Waterford,Ireland		
Within the Country	20 01 08	No	2609.32	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Thorntons Kilmainhamwood Compost ,W0195-02	-,Ballynalurgan ,Kilmainhamwood , Kells Co Meath.,ireland		
Within the Country	20 01 38	No	1447.44	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	394.84	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland		
Within the Country	20 01 40	No	261.42	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	93.92	metals	R4	M	Weighed	Offsite in Ireland	Clearcirlce,WCP-LK-08-589-01	ClearCircle Metals (Limerick) Ltd ,Ballysimon Road ,Limerick,.,ireland		
Within the Country	20 01 40	No	204.52	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	736.7	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Bord na Mona Composting ,W0198-01	Kilberry Athy ,Co Kildare,-,-,ireland		
Within the Country	20 02 01	No	374.88	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd ,WP-008-02	Lawlesstown , Clonmel ,Co. Tipperary ,-,ireland		
Within the Country	20 03 01	No	54.3	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	midland waste,W0131-02	Navan,-,-,county meath,ireland		
Within the Country	20 03 01	No	4789.2	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	1417.6	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	20 03 01	No	1489.36	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Greyhound Recyling & Recovery,W0205-01	Crag Avenue,Clondalkin Industrial Estate,Clondalkin,Dublin 22,Ireland		
Within the Country	20 03 01	No	4024.16	mixed municipal waste	R1	M	Weighed	Offsite in Ireland	Indaver IWMF ,W0167-02 Carranstown Duleek Co Meath - ireland	Carranstown ,Duleek,Co Meath,-,ireland		
Within the Country	20 03 01	No	7123.88	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Greenstar Ltd ,W0146-01	Knockharley Landfill ,Kentstown ,Co Meath ,.,ireland		
Within the Country	20 03 01	No	1131.96	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Oxigen Environmental Limited,W-0208-1	Ballymount Industrial Estate ,Ballymount Road Lower ,Clondalkin ,Dublin 22,ireland		
Within the Country	20 03 01	No	24.94	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Thorntons Kilmainhamwood Compost ,W0195-02	-,Ballynalurgan ,Kilmainhamwood , Kells Co Meath.,ireland		
Within the Country	20 03 01	No	85.8	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Panda,W039-02	Ballymount Cross,Tallaght,Dublin 24,-,ireland		
Within the Country	20 03 01	No	14.48	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	3.1	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd,W0183-01	Millennium Park,Ballycoolin, Dublin 11,.,Ireland		
Within the Country	20 03 03	No	75.5	street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	20 03 07	No	7830.38	bulky waste	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0053-03	Bray Depot,Fassaroe,Bray,Co Wicklow,Ireland		

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

Link to previous years waste data
Link to previous years waste summary data & percentage change
Link to Waste Guidance

APPENDIX 2

Procedures List

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

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

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

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

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