



**ANNUAL ENVIRONMENTAL REPORT**  
**FOR GREENSTAR LTD.**  
**DEEP WATER QUAY SLIGO**  
**LICENCE NO. W0058-01**  
**JANUARY 2013 – DECEMBER 2013**

**Prepared For: -**

Greenstar Ltd.,  
Unit 6,  
Ballyogan Business Park,  
Ballyogan Road,  
Sandyford,  
Dublin 18

**Prepared By: -**

O' Callaghan Moran & Associates,  
Granary House,  
Rutland Street,  
Cork

**31<sup>st</sup> March 2014**

Project		Annual Environmental Report 2013		
Client		Greenstar Ltd. W0058-01		
Report No	Date	Status	Prepared By	Reviewed By
0481005	21/03/2013	Draft	Michael Watson MA MCIWM	Mr Barry Sexton MSc
	31/03/2013	Final	Michael Watson MA MCIWM	Mr Barry Sexton MSc

---

# TABLE OF CONTENTS

---

	<u>PAGE</u>
<b>1. INTRODUCTION.....</b>	<b>1</b>
<b>2. SITE DESCRIPTION.....</b>	<b>2</b>
2.1 SITE LOCATION AND LAYOUT .....	2
2.2 WASTE MANAGEMENT ACTIVITIES .....	2
2.2.1 Waste Types.....	2
2.2.2 Plant List.....	4
<b>3. EMISSION MONITORING .....</b>	<b>5</b>
3.1 SURFACE WATER MONITORING .....	5
3.2 GROUNDWATER MONITORING.....	7
3.3 FOUL WATER MONITORING .....	8
3.4 NOISE SURVEY .....	9
3.5 DUST MONITORING .....	11
3.6 LANDFILL GAS MONITORING .....	11
<b>4. SITE DEVELOPMENT WORKS .....</b>	<b>13</b>
4.1 ENGINEERING WORKS .....	13
4.2 SUMMARY OF RESOURCE & ENERGY CONSUMPTION .....	13
<b>5. WASTE RECEIVED AND CONSIGNED 2013 .....</b>	<b>14</b>
<b>6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS .....</b>	<b>18</b>
6.1 INCIDENTS .....	18
6.2 REGISTER OF COMPLAINTS.....	18
<b>7. ENVIRONMENTAL DEVELOPMENT .....</b>	<b>19</b>
7.1 ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT .....	19
7.1.1 Site Management Structure .....	19
7.1.2 Staff Training.....	20
7.2 ENVIRONMENTAL MANAGEMENT PROGRAMME PROPOSAL .....	20
7.2.1 Schedule of Objectives 2013 .....	20
7.2.2 Schedule of Objectives 2014 .....	20
7.3 COMMUNICATIONS PROGRAMME .....	24
7.4 ELRA & REPORT ON FINANCIAL PROVISION .....	24
<b>8. OTHER REPORTS.....</b>	<b>25</b>
8.1 EUROPEAN POLLUTANT RELEASE AND TRANSFER REGISTER REGULATION .....	25

**APPENDIX 1** - European Pollutant Release and Transfer Register

**APPENDIX 2** - Procedures List

---

# 1. INTRODUCTION

---

This is the 2013 Annual Environmental Report (AER) for the Greenstar Ltd (In Receivership) (Greenstar), Materials Recovery & Transfer facility (MRF) at Deep Water Quay, Sligo. It covers the period from the 1<sup>st</sup> January 2013 to the 31<sup>st</sup> December 2013. During the reporting period, Greenstar was in receivership but ownership of the company and transfer of the licence to Starrus Eco Holdings Ltd (trading as Greenstar) was completed in March 2014.

The content is based on Schedule B of the Waste Licence (Reg. No. W0058-01) and the report format follows guidelines set in the “Guidance Note for Annual Environmental Report” issued by the Environmental Protection Agency (Agency)<sup>1</sup>. Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013<sup>2</sup>.

---

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

<sup>2</sup> EPA (Environmental Protection Agency) 2012 Draft AER Guidance Document

---

## 2. SITE DESCRIPTION

---

### 2.1 Site Location and Layout

The facility is located at Deepwater Berths Road, approximately 1.5 km northwest of Sligo town centre and 1 km from a relief road linking the N4 to the N15.

The licensed area, which encompasses approximately 11,000 m<sup>2</sup> and is accessed off the Deepwater Berths Road, is occupied by one waste transfer building, site offices, open yard areas and a civic amenity area.

The main building encompasses approximately 2,322 m<sup>2</sup> and is divided into three bays. The site offices, which are located beside the main entrance, comprise a two storey building encompassing approximately 84 m<sup>2</sup>. The north western yard is paved with concrete and provides access to the waste processing building. The south-eastern yard is also paved and comprises the civic amenity area and an open paved yard area.

### 2.2 Waste Management Activities

The facility is licensed to accept 100,000 tonnes per annum of household waste, commercial waste, industrial non-hazardous waste and construction and demolition waste for processing and/or transfer for disposal or recovery.

#### 2.2.1 Waste Types

The facility is licensed to accept the following waste types: -

- Household (41,400 tonnes);
- Commercial (4,600 tonnes);
- Industrial Non-hazardous (45,000 tonnes);
- Construction & Demolition (C&D) (9,000 tonnes);

No hazardous wastes or liquid waste are accepted.

Waste bulking and segregation take place inside the waste transfer building, as specified in Condition 5.1 of the Licence and includes:

- Segregation of recyclable material (paper, cardboard, plastic, wood, aluminium cans);
- Baling of segregated materials;
- Sorting and segregation of C&D waste;
- Bulking up of Municipal Solid Waste;
- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets.

### *Household Waste*

Residual or black bin household waste arrives in refuse collection vehicles. It is then bulked up in the waste transfer building and loaded into large bulk transporters for consignment to an appropriately licensed landfill. Source segregated household dry recyclables are baled and stored prior to transfer to permitted/licensed off-site recycling facilities.

### *Commercial and Industrial Waste*

Both mixed and segregated commercial waste is collected from commercial outlets. Commercial waste containing many recyclable waste streams (paper, cardboard, glass, metal, green waste and wood) is delivered to the facility by both permitted third party hauliers and by Greenstar vehicles. Plastic, card and paper are baled and stored prior to transfer to a suitable permitted/licensed off-site recycling outlet. Biodegradable wastes that are suitable for composting are sent to an offsite authorised composting facility. The remaining non-recyclable material is bulked and sent to appropriately licensed landfills.

### *C&D Waste*

Waste loads include mixed construction and demolition wastes and soil and stone. The material arrives in skips of varying sizes. The waste loads are inspected and then bulked. The majority of the incoming material is recovered and sent off-site either for re-use or recycling at authorised facilities. The non-recyclable elements are transferred to a licensed landfill.

### *Civic Amenity Area*

The civic amenity area is located to the south-east of the waste transfer building and has its own dedicated entrance for members of the public. There are a number of dedicated closed skips for MSW, dry recyclables (cardboard, plastics, metals, papers etc) and WEEE.

#### *2.2.2 Plant List*

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

**Table 2.1** Plant List – 2013

<b>No.</b>	<b>Plant</b>	<b>Model</b>	<b>Operational Capacity</b>	<b>Standby Capacity</b>
1	Baler	Boa	7t/hr	7t/wk
1	Paper Shredder	Alleghney	500kg/hr	500kg/hr
5	Trucks	Skip Trucks *3	60hr/wk	-
		Refuse Trucks *4	60hr/wk	-
1	Hook Lifter	Scania	65hr/wk	-
1	Loading Shovel	Caterpillar 938G	70t/hr	-
1	Fork Lift	Yale x2	65hr/wk	-
	Trommel	Powerscreen	60t/hr	
1	Grab	Fuchs MHL340	25t/hr	-
1	Weighbridge	Avery Weightronic	46hr/wk	-

---

### **3. EMISSION MONITORING**

---

Greenstar implements a comprehensive environmental monitoring programme to assess the significance of emissions from site activities as per Schedule E of the Waste Licence. The programme includes surface water, foul water, groundwater, noise, landfill gas and dust monitoring. The monitoring locations are shown on Figure 3.1. The monitoring results are submitted to the Agency at quarterly intervals. An overview of the monitoring conducted in 2013 is presented in this Section.

#### **3.1 Surface Water Monitoring**

The surface water drainage system, serving roofed and open yard areas, discharges via a silt trap and petrol/oil interceptor to the Garavogue River. The interceptor and drains are cleaned as required.

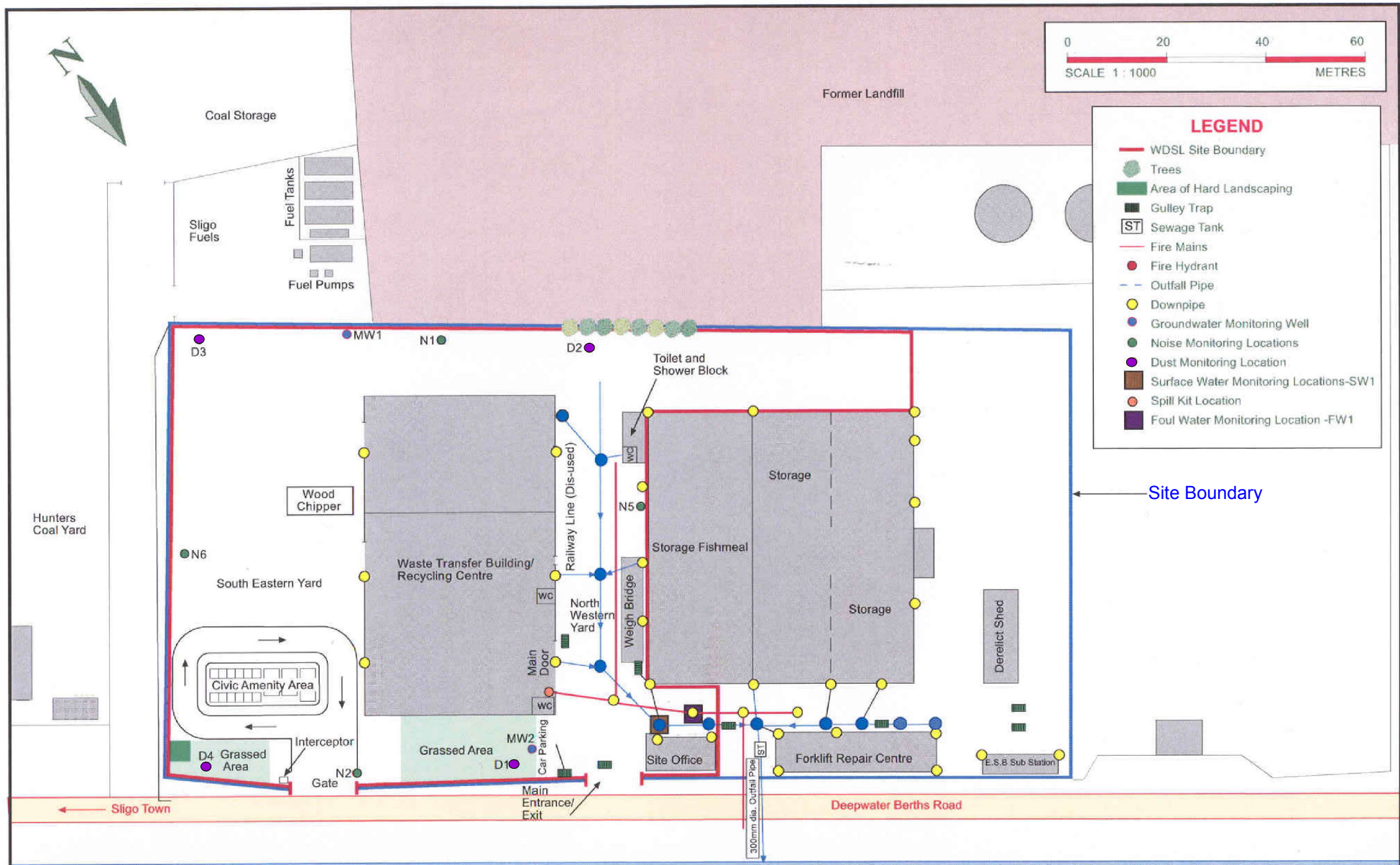
Surface water monitoring is carried out in accordance with Condition 9.2 and Schedule E of the Licence at quarterly intervals at the final discharge point (SE-2). The range of analysis is as specified in Schedule E and includes pH, electrical conductivity, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), ammoniacal nitrogen, chloride, surfactants, total suspended solids (TSS), mineral oils, and oils, fats and greases.

The results, which are shown on Table 3.1, indicate the discharge is generally of good quality. There was a marginal exceedance of the TSS emission limit values (ELV) set in the licence for surface water emissions in Q4 2013. The Agency, Sligo Borough Council and the Fisheries Board were notified at the time the sample results were received. There was no exceedance of the ELVs for BOD, Fats Oils and Grease or pH and the general quality of the discharge in Q4 was good.

The source of the elevated suspended solids is unknown but there were no incidents recorded prior to sampling likely to have led to the elevated levels and may have been due to the disturbance of sediments while sampling. The yard and storm water maintenance schedule in place at the facility is working well. This was the first exceedances of the ELVs for TSS since July 2012 and at this level the exceedances is not considered significant.

Given the low flow rate of the discharge and the assimilative capacity of the Garavogue it is considered that the elevated TSS had an imperceptible impact on the water quality in the Estuary.





O' Callaghan Moran & Associates.  
 Granary House, Rutland Street,  
 Cork Ireland.  
 Tel. (021) 4321521 Fax. (021) 4321522  
 email : info@ocallaghanmoran.com

CLIENT

Greenstar Ltd

Details

© Ordnance Survey Ireland. Government of Ireland.

FIGURE NUMBER

3.1

TITLE

Monitoring Locations

Scale

Not To Scale

Revision

A

This drawing is the property of O'Callaghan Moran & Associates and shall not be used, reproduced or disclosed to anyone without the prior written permission of O'Callaghan Moran & Associates and shall be returned upon request.

**Table 3.1** Surface Water Results for 2013

Parameter	Units	SE-2 Q1	SE-2 Q2	SE-2 Q3	SE-2 Q4	Emission Limit (Grab Sample)
pH	pH units	7.2	6.84	6.91	6.9	6 – 9
Conductivity	mS/cm	0.630	0.710	0.598	0.498	N/A
Chloride	mg/l	8	20.74	20.49	19.7	N/A
Ammoniacal Nitrogen	mg/l	0.04	0.537	0.753	0.5	N/A
COD	mg/l	97	10	33	56	N/A
BOD	mg/l	23	<2	<2	<1	24
Total Suspended Solids	mg/l	27	7	25	58	36
Surfactants	mg/l	0.24	<1	<1	<0.21	N/A
Mineral Oils	mg/l	0.5	0.010	**	0.495	N/A
Oils, Fats & Greases	mg/l	<2	<1	**	<5	12

N/A - not applicable

\*Condition 7.7.1.3. No grab sample shall exceed 1.2 times the emission limit value.

### 3.2 Groundwater Monitoring

There are no direct or indirect emissions to ground from the facility. Groundwater monitoring is carried out annually at two locations (MW1 and MW2) shown on Figure 3.1. MW1 is located on the southern boundary of the site in an open paved yard area, and MW2 is at the northern boundary near the main entrance to the site. MW1 is upgradient of site activities, while MW2 is downgradient.

The laboratory analysis included the annual range of parameters specified in Schedule E5 of the Licence. The parameters were ammoniacal nitrogen, BOD, chloride, mineral oils, pH, faecal coliforms and total coliforms.

The methodologies were all ISO/CEN approved or equivalent. There are no trigger limits set in the Licence and the results are compared to the Interim Guideline Values (IGV) on groundwater quality published by the Agency and the Groundwater Threshold Values (GTV) set out in the European Communities Environmental Objectives (Groundwater) Regulations (S.I. 9 of 2010). The IGVs are not statutory, but were developed to assist in the assessment of impacts on groundwater quality. The IGVs are based on, but are more conservative than the Drinking Water quality standards. GTVs have only been established for core indicator parameters. The summary results for 2013 are shown on Table 3.2.

Elevated levels of ammoniacal nitrogen and mineral oils were detected in the upgradient well (MW-1). Elevated levels of ammoniacal nitrogen were also detected in the downgradient well (MW-2). Low levels of faecal and total coliforms were detected in the downgradient well, but at levels not considered to be significant.

The closed Finiskiln landfill is immediately south west and up hydraulic gradient of the site. The landfill was operated by Sligo Borough Council from 1958 to 1994 and was used for the

disposal of municipal solid waste. The Garavogue River estuary is immediately north of the site.

The elevated ammoniacal nitrogen may be attributable to the former landfill. Elevated chloride has been detected in the groundwater in the recent past and is likely associated with saltwater intrusions from the estuary.

The mineral oil level in MW-1 (675mg/l) is higher than that recorded in February 2013 (118mg/l) but similar to the levels detected in 2011 (670 mg/l). MW1 is approximately 5m from a neighbouring kerosene and diesel distribution centre. There are no on-site sources of hydrocarbon contamination in the vicinity of this well and it is understood that the source of the contamination is a leak that occurred at the distribution centre. Greenstar informed the distribution centre, the Agency and Sligo County Council of the discovery of the oil contamination in 2006. A summary report of groundwater monitoring results from 2004 to 2013 was submitted to the Agency in May 2013 with emphasis on mineral oil concentrations recorded at the up-gradient well (MW-1).

**Table 3.2** Groundwater Monitoring Results – May 2013

Parameter	Units	MW1	MW2	IGV	GTV
pH	pH units	6.9	6.6	6-9	-
Chloride	mg/l	21.24	9.9	30	24-187.5
Ammoniacal Nitrogen	mg/l	1.67	1.39	0.15	0.065-0.175
BOD	mg/l	8.45	<2	-	-
Mineral Oils	mg/l	675	<0.0001	10	-
Faecal Coliforms	cfu/100ml	<1	16.1	0	-
Total Coliforms	cfu/100ml	<1	90.4	0	-

### 3.3 Foul Water Monitoring

Foul water is generated by floor runoff in the transfer building and sanitary discharges. In July 2010, following agreement with the Agency, the drainage system was connected to the Sligo County Council municipal sewer, which connects to the municipal waste water treatment plant located approximately 500 m from the facility. Monitoring is carried out at one location (SE-1), the final discharge point from the facility. A technical amendment issued in January 2013 defines the current monitoring schedule for emissions to sewer. Foul water monitoring is carried out quarterly in accordance with Condition 9.2 and Schedule E.7 of the licence. The sampling location is shown on Figure 3.1 and the monitoring results are presented on Table 3.3.

The range of analysis as specified in Schedule E.7 of the amended Waste Licence includes pH, BOD, COD, ammoniacal nitrogen, chloride, detergents, total suspended solids, mineral oils and oils, fats and greases. The sampling and analysis was carried out in accordance with recognised quality assurance and control procedures.

The ELVs set in the licence are based on a direct discharge to the Garavogue River. As the discharge to the river has stopped, the Licence ELVs are no longer applicable. In approving the connection to the municipal sewer, the Sanitary Authority set discharge limits and these are included in Table 3.3. The foul water discharge complied with the ELVs in 2013.

A technical amendment granted in January 2013 significantly altered the existing monitoring regime and introduced a requirement to obtain composite samples of foul water samples for a number of parameters (including pH, BOD, COD, Chloride, detergents, total suspended solids, mineral oil and Oils Fats and Greases). This requirement to obtain composite samples was appealed by Greenstar and with the agreement of Sligo County Council, the Agency advised that it was appropriate to maintain the current sampling technique (grab sampling).

**Table 3.3** Foul Water Monitoring Results for 2013

Parameter	Units	SE-1 Q1 2013	SE-1 Q2 2013	SE-1 Q3 2013	SE-1 Q4 2013	Sanitary Authority Emission Limits
pH	pH Units	6.5	6.73	7.25	7.2	6 – 10
BOD	mg/l	41	2.67	5.03	<2	3,000
COD	mg/l	162	84	39	<10	6,000
Chloride	mg/l	14	18.99	18.49	14.4	-
Ammoniacal Nitrogen	mg/l	1.08	0.381	10.2	0.17	100
Total Suspended Solids	mg/l	18	141	7.6	<2	1,250
Surfactants	mg/l	0.114	0.154	0.179	<0.21	100
Oils, Fats & Greases	mg/l	<2	<1	2.63	<5	100
Mineral Oils	mg/l	<0.01	0.083	<0.01	0.05	10

### 3.4 Noise Survey

All waste processing is carried out internally which provides significant attenuation for noise emissions from waste processing. The annual noise survey was carried out on the 12<sup>th</sup> July 2013 in accordance with Schedule E of the Licence. Monitoring was carried out at the four noise monitoring locations, N-1, N-2, N-5 and N-6 shown on Figure 3.1. The results are summarised on Table 3.4. The survey concluded that the facility was fully compliant with its licence requirements as there were no impacts from facility activities at any potentially noise sensitive locations.

The nearest sensitive receptors to the facility are private residences located approximately 200 metres to the east of the facility across the Garavogue River at Cartron. There are also some individual residences located close to the Finiskiln Industrial Estate approximately 200 metres south of the facility. An inspection undertaken by the acoustic consultant in the vicinity of the nearest sensitive locations prior to the onsite noise survey established that noise emissions from the study site were not audible or discernible at these locations.

**Table 3.4** Noise Monitoring Results July 2013

Station	Time	LAeq 30 min dB	LAF10 30 min dB	LAF90 30 min dB	Specific level* dB	Noise audible
N1	1456- 1526	55	53	42	55	Plant in waste processing building audible through facade. Trucks on yards also audible at low level. Sporadic vehicle movements past N1. Offsite, intermittent vehicle movements audible at low level on access road outside boundary.
N2	1606- 1636	62	61	44	61	User waste disposal activities at CAS dominant, arising chiefly from car movements through entrance, and glass bottle disposal. Occasional truck emissions clearly audible within waste processing building. Intermittent road traffic outside boundary significant. At 1633, Greenstar truck entered CAS, collected 1 bin, and returned to main yard.
N5	1424- 1454	69	72	57	69	Truck idling on yard at 8 m entirely dominant until 1435. No other noise audible, until truck reversed into waste processing building at 1435. Noise audible thereafter from truck and vehicle movements on yard, and waste processing operations in building.
N6	1529- 1559	59	62	42	59	Idling forklift truck in yard at 50 m dominant 1533-1552. Outside this period, waste processing operations in building almost continuously audible and dominant until 1554. Thereafter, occasional waste disposal activity noise audible at CAS. Starlings significant. Offsite, intermittent road traffic clearly audible, and dominant when passing E boundary.

\*Specific level: Sound pressure level contribution considered attributable to facility

### 3.5 Dust Monitoring

There are significant off-site sources of dust in the vicinity of the facility which is located in an industrial area of Sligo Port. In dry weather Greenstar dampen down access roads and the paved yards. Dust monitoring was carried out three times during the year in accordance with Schedule E of the Licence at four on-site locations (D1, D2, D3 and D4) as shown on Figure 3.1. The Licence requires that two of these monitoring events be carried out between May and September. Dust monitoring was carried out in June, July/August and September. The results of the dust monitoring are presented in Table 3.5.

The dust deposition limit (350 mg/m<sup>2</sup>/day) was exceeded at one of the four monitoring locations (D4 - 493 mg/m<sup>2</sup>/day) in July/August 2013. The limits were not exceeded at any location in either June or September 2013.

The sources of the dust at each of the locations is not exclusively the Greenstar facility, which is located in a busy port surrounded by a variety of industrial activities, including an open coal storage facility to the west and south west, a petrol and oil distribution centre to the south, a fish meal storage warehouse to the east and an unvegetated partially restored local authority landfill to the south. The facility is also bounded to the north by the Port road leading to other industrial units further along the quay.

Location D4 is on the western boundary of the facility, adjacent to the Port access road and close to the open coal storage yard. When collecting the gauges, Greenstar staff noted the presence of black dust and some vegetation indicating the presence of coal dust from the coal yard and some leaves from some adjacent trees. Given the low levels recorded at D1, D2 and D3 in July /August 2013 it is not considered that the levels recorded at D4 are indicative of emissions from the Greenstar facility. It is considered that the elevated levels are due to offsite sources.

**Table 3.5** Dust Monitoring Results 2013

	<b>June '13 mg/m<sup>2</sup>/day</b>	<b>July/Aug '13 mg/m<sup>2</sup>/day</b>	<b>September'13 mg/m<sup>2</sup>/day</b>	<b>Deposition Limit mg/m<sup>2</sup>/day</b>
D1	232	306.75	25.54	350
D2	36	115.38	114.6	350
D3	186	323.08	14.29	350
D4	164	493.27	17.2	350

### 3.6 Landfill Gas Monitoring

The annual gas monitoring was carried out in accordance with Schedule E of the Licence and included measurements of methane, carbon dioxide, oxygen and atmospheric pressure from the two groundwater monitoring wells (MW1 & MW2) and the facility office on the 19<sup>th</sup> December 2013. OCM carried out the gas measurements using a Gas Data LSMx gas analyser. The meter

was calibrated before use. The detection limit is 0.1% for methane, carbon dioxide and oxygen. The results are shown on Table 3.6. There are no trigger limits set in the waste licence. Carbon dioxide and methane were not detected at any of the monitoring locations. There is no evidence that landfill gas is present in the soils beneath the facility.

**Table 3.6** Landfill Gas Monitoring Results 2013

LANDFILL GAS MONITORING FORM				Baseline		Ambient	x
Site Name: Greenstar Ltd. – Sligo Depot				Site Address: Greenstar, Sligo.			
Operator: GREENSTAR				National Grid Reference:			
Site Status: Operational				Date: 19/12/2013			
Instrument used: Gas Data LMSx		Normal Analytical Range: 0 – 100%					
Monitoring Personnel: OCM				Weather: Cold, Rain earlier			
Results							
Sample ID	Borehole/ spike/other	CH <sub>4</sub> (% v/v)	CO <sub>2</sub> (% v/v)	O <sub>2</sub> (% v/v)	Barometric Pressure (mb)	Comment	
MW1	Borehole	0.0	0.1	19.5	1002		
MW2	Borehole	0.0	0.1	21.1	1002		
OFFICE	-	0.0	0.1	19.5	1002		

---

## 4. SITE DEVELOPMENT WORKS

---

### 4.1 Engineering Works

No engineering works were completed during the reporting period.

It is intended to concrete the permeable portion of the site currently used for the storage of empty wheelie bins at the north western boundary. For operational reasons, it is also intended to resurface portion of the MRF building floor. The MRF building was constructed in two phases and the southern area of the floor is at a slightly lower level to the northern area. It is intended to raise the floor at the southern area to remove the divide between both sides of the building.

The facility has sufficient plant capacity to handle the volumes of waste accepted at the facility. It is not expected that the existing methods, processes, waste types accepted and operating procedures will not be altered significantly in 2013. The Agency will be notified of all specified engineering works as per Condition 4.18 of the Licence.

### 4.2 Summary of Resource & Energy Consumption

Table 4.1 presents an estimate of the resources used on-site during the reporting period and the previous two years. An energy audit was completed in compliance with Condition 9.13 of the Technical Amendment during 2013 and an Energy Management Policy was developed subsequent to this. Resource use has decreased since 2011 related to a reduction in business activity.

**Table 4.1** Estimates of Resources Used On-Site 2013, 2012 & 2011

Resources	Quantities 2013	Quantities 2012	Quantities 2011
Vehicle Diesel	129,152 Litres	140,486 litres	142,189 litres
Diesel (green)	19,800 Litres	23,766 litres	25,648 litres
Electricity	87,018 Units	123,466 kwh	112,276 kwh
Hydraulic & Engine Oil	600 litres	1,400 litres	800 litres



---

## **5. WASTE RECEIVED AND CONSIGNED 2013**

---

Table 5.1 shows the quantities of wastes accepted and consigned for the reporting period. A more detailed description of the wastes received and consigned in 2013 is presented in the PRTR submission in Appendix 1.

The total quantity of waste received was 16,032 tonnes and the total amount consigned was 16,556 tonnes. For comparative purposes the amounts of waste received and consigned from 2003 to 2011 are presented in Tables 5.2 and 5.3. As per Condition 5.8 of the Licence all the wastes consigned from the site went to authorised recovery and disposal facilities and a copy of the relevant Facility Permit or Waste Licences retained on site for Agency inspection.

The records show that more waste was consigned from the site than accepted. The difference was 524 tonnes. The difference relates to wastes held on site at the end of 2012.

**Table 5.1** Waste Received & Consigned 2013

<b>EWC</b>	<b>Description</b>	<b>Waste In</b>	<b>Waste Out</b>
02 07 05	Interceptor Sludge	552	573
15 01 01	Cardboard Packaging	854	1,317
15 01 02	Plastic Packaging	381	167
15 01 04	Metallic Packaging	60	5
15 01 05	Tetrapak	15	-
15 01 06	Mixed Packaging	2,293	-
15 01 07	Glass Packaging	88	1,711
15 02 03	Absorbenst	1	
16 03 06	Silver Strips	205	189
17 02 01	Wood	12	-
17 02 03	Plastic	6	-
17 05 04	Soil & Stone from C&D Waste	48	-
17 09 04	Mixed C&D	169	58
19 08 02	Waste from Desanding	7	-
19 08 12	Sludges from biological treatment of waste water	-	14
19 09 02	Sludges from water clarification	43	15
19 12 07	Wood other	-	27
19 12 09	minerals	-	170
19 12 12	Other Wastes	-	10,321
20 01 01	Paper & Cardboard	370	278
20 01 02	Glass Municipal	63	39
20 01 08	Biodegradeable Kitchen & Canteen Waste Wastes	227	75
20 01 11	Textiles	12	8
20 01 36	Discarded electronic equipment	36	168
20 01 38	Wood from municipal sources	199	-
20 01 39	Plastic from municipal sources	35	-
20 01 40	Metal from municipal sources	53	47
20 02 01	Biodegradable garden & park waste	45	-
20 03 01	Mixed Residual Waste from mechanical treatment	1,980	324
20 03 07	Bulky Waste	8,274	1,050
	<b>Total Accepted</b>	<b>16,032</b>	
	<b>Total Consigned</b>		<b>16,556</b>
	<b>Recovery</b>		<b>7,140</b>
	<b>Disposal</b>		<b>9,416</b>
	<b>Recovery Rate</b>		<b>c43%</b>

**Table 5.2** Waste Received & Consigned 2012

<b>EWC</b>	<b>Description</b>	<b>Waste In</b>	<b>Waste Out</b>
02 07 05	Interceptor Sludge	450	428
15 01 01	Cardboard Packaging	1360	1,729
15 01 02	Plastic Packaging	375	242
15 01 03	Wooden Packaging	0.68	-
15 01 04	Metallic Packaging	36	21.05
15 01 05	Tetrapak	26	-
15 01 07	Glass Packaging	118	55.3
15 01 09	Textile Packaging	1.52	-
16 03 06	Silver Strips	221	75
17 05 04	Soil & Stone from C&D Waste	0.82	-
17 09 04	Mixed C&D	212	569
19 08 02	Grit	11	-
19 09 02	Sludges from water clarification	-	13.5
20 01 01	Paper & Cardboard	216	276
20 01 02	Glass Municipal	52	9.4
20 01 08	Biodegradeable Kitchen & Canteen Waste Wastes	357	209
20 01 11	Textiles	12	13.3
20 01 33	Batteries	2.55	0.7
20 01 35*	WEEE	249	245
20 01 38	Wood from municipal sources	212	68
20 01 39	Plastic from municipal sources	3	28
20 01 40	Metal from municipal sources	53.7	94
20 02 01	Biodegradable garden & park waste	42.65	-
20 03 01	Mixed Residual Waste from mechanical treatment	8,095	7,660
20 03 07	Bulky Waste	6,132	7,463
	<b>Total Accepted</b>	<b>18,234</b>	
	<b>Total Consigned</b>		<b>19,201</b>
	<b>Recovery</b>		<b>7,423</b>
	<b>Disposal</b>		<b>11,778</b>
	<b>Recovery Rate</b>		<b>38.5%</b>

**Table 5.3** Total Tonnages Received and Consigned in 2003-2013

<b>Year</b>	<b>Tonnes per Annum</b>	<b>Tonnes Recovered</b>	<b>Tonnes Landfilled</b>
<b>2003/2004</b>	14,484	2,199	12,285
<b>2004</b>	18,548	6,351	12,197
<b>2005</b>	21,500	6,750	12,694
<b>2006</b>	23,196	8,393	15,634
<b>2007</b>	32,271	9,224	24,672
<b>2008</b>	36,993	7,082	32,148
<b>2009</b>	24,267	8,760	16,864
<b>2010</b>	17,359	7,215	11,277
<b>2011</b>	24,982	8,961	16,021
<b>2012</b>	19,201	7,423	11,778
<b>2013</b>	16,556	7,140	9,416

---

## **6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS**

---

### **6.1 Incidents**

There were two minor environmental incidents during the reporting period which related to an exceedance of the dust deposition limit and surface water ELV. There were no other incidents at the facility as defined by the Licence.

The dust deposition limit (350 mg/m<sup>2</sup>/day) was exceeded at one of the four monitoring locations (D4 - 493 mg/m<sup>2</sup>/day) in July/August 2013. The limits were not exceeded at any location in either June or September 2013. The limits were not exceeded at any location in either June or September 2013. It is considered that the dust source was off site rather than an emission associated with site activities. The exceedance was reported to the Agency in accordance with Condition 3.3 of the Licence.

There was a marginal exceedance of the TSS emission limit values (ELV) set in the licence for surface water emissions in Q4 2013. The Agency, Sligo Borough Council and the Fisheries Board were notified of this exceedance.

Greenstar investigated the incident, but the cause could not be established. There were no incidents prior to sampling likely to have led to the elevated levels and the yard and storm water maintenance schedule was found to be effective.

### **6.2 Register of Complaints**

Greenstar maintains a register of complaints received in accordance with Condition 3.12 of the Licence. During 2013, Greenstar was informed by Sligo County Council of a single complaint from an anonymous source relating to litter nuisance at the facility in August 2013. Greenstar investigated the complaint and conducted an intensive litter pick. All relevant staff were informed of the requirement to ensure operations do not give rise to nuisance. A response was issued to the Agency on 16<sup>th</sup> August 2013.

---

## 7. ENVIRONMENTAL DEVELOPMENT

---

### 7.1 Environmental Management Programme Report

Greenstar have implemented an Integrated Management System (IMS) in accordance with the requirements of Occupational Health and Safety Assessment Series (OHSAS) 18001:2007 and International Standard Organisation (ISO) 14001:2004 in order to manage the Health, Safety and Environmental performance of their business and to control health and safety risk and to minimise their environmental aspects and impacts.

The IMS has been developed for the achievement of continual improvement taking into the requirements of the Waste Licence Conditions. Greenstar has prepared and effectively implement documented procedures and instructions in accordance with the requirements of both the OHSAS 18001:2007 and ISO 14001:2004. A successful IMS external surveillance audit was conducted on 4<sup>th</sup> July 2013.

As part of this IMS, Greenstar has developed a list of environmental, management, operating and maintenance procedures, details of which are outlined in Appendix 2. The schedule of Objectives and Targets, including their status for 2013 (Table 7.1), as well as the proposed Objectives and Targets for 2014 (Table 7.2) are presented below.

#### 7.1.1 Site Management Structure

**Name:** Barry Gallagher

**Responsibility:** Operations Manager; overall management of the site, responsible for management of all fleet activities

**Experience:** 23 years experience. N.C.B.S

**Name:** Anthony Lynch

**Responsibility:** Yard Foreman, management of baler, pickers, forklift driver and yard cleaner

**Experience:** 12 years

**Name:** Louise Lynch

**Responsibility:** Administration Manager, office administration

**Experience:** 11 years

### *7.1.2 Staff Training*

Environmental Awareness training was carried out for all staff in June 2013.

## **7.2 Environmental Management Programme Proposal**

### *7.2.1 Schedule of Objectives 2013*

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

### *7.2.2 Schedule of Objectives 2014*

The schedule of targets and objectives for 2014 are presented in Table 7.2.

**Table 7.1** Schedule of Objective and Targets 2013

No.	Objective	Target	Timescale	STATUS
1	<b>Awareness and Training</b>	Continue to ensure that appropriate training is carried out specific to all site personnel as per the Company's established Training Matrix	<b>Q1-Q4</b>	<b>Completed Q2</b>
2	<b>Energy &amp; Resource Consumption</b>	Complete an Energy Audit in compliance with Condition 9.13 of the Technical Amendment	<b>Q1-Q4</b>	<b>Completed</b>
3	<b>Pollution Prevention</b>	Strive to ensure that monitoring results comply with the licence limits and investigate any exceedances of emission limit values.	<b>Q1-Q4</b>	<b>Completed</b>
4	<b>Infrastructural Development</b>	Investigate the costs and develop SEW proposals to concrete the empty wheelie bin storage area and also to raise the floor at the southern section of the MRF building to come into line with the newer floor at the northern portion of the building.	<b>Q3-Q4</b>	<b>Postponed to 2014</b>
5	<b>Environmental Liabilities</b>	Commission the completion of an ELRA in 2013	<b>Q3</b>	<b>Completed</b>
6	<b>Accident Prevention (Environmental Impacts)</b>	Complete an Accident Prevention Procedure for the facility in compliance with Condition 10.8 of the Technical Amendment	<b>Q3</b>	<b>Completed</b>
7	<b>Maintain the current 'Compliant' status to the ISO 18001/14001</b>	Review procedures to ensure compliance with the external ISO audit scheduled for July 2013	<b>Q3</b>	<b>Audit Pass Q3</b>
8	<b>Odour Management</b>	Compile an Odour Management Plan for the facility and include it on the training matrix referred to in Objective 1	<b>Q2 – Q3</b>	<b>Currently Under Revision</b>



**Table 7.2** Schedule of Objective and Targets 2014

<b>No.</b>	<b>Objective</b>	<b>Target</b>	<b>Timescale</b>	<b>Responsibility</b>
<b>1</b>	<b>Integrity Testing of all above ground bunds in Compliance with Condition 4.12.4 of Licence</b>	In compliance with Condition 4.12.4, testing is to be carried out and report submitted to the Agency	<b>Q3-Q4</b>	<b>Site Management/EHS</b>
<b>2</b>	<b>Infrastructural Development – Hardstanding and drainage</b>	Investigate the costs and develop SEW proposals to concrete the empty wheelie bin storage area and also to raise the floor at the southern section of the MRF building to come into line with the newer floor at the northern portion of the building.	<b>Q3-Q4</b>	<b>Site Management/EHS</b>
<b>3</b>	<b>Reduce energy consumption and provide energy awareness training to employees</b>	Tenders will be sought to review the current lighting system and introduce a lighting system with lower energy demands.	<b>Q2 2014</b>	<b>Site Management/EHS</b>
<b>4</b>	<b>Odour Impacts</b>	Compile an Odour Management Plan for the facility and include it on the training matrix	<b>Q2 – Q3</b>	<b>Site Management/EHS</b>
<b>5</b>	<b>Development and adoption of Fire Prevention Procedure at the facility</b>	Reduce risk of fire and enable early detection	<b>Q2 2014</b>	<b>Site Management/EHS</b>
<b>6</b>	<b>Review of Emergency Response Plan to incorporate fire prevention procedure and new structure</b>	Revision of Plan and additional training for site personnel	<b>Q2 2014</b>	<b>Site Management/EHS</b>
<b>7</b>	<b>Achieve re-certification to ISO 14001 and OHSAS 18001 standard</b>	3 year certification period expires in 2014. The facility requires re-certification.	<b>Q3/Q4 2014</b>	<b>Site Management/EHS</b>

<b>8</b>	<b>Develop and maintain traffic management plan at the facility</b>	Review of all on-site traffic management	<b>Q2/Q3 2014</b>	<b>Site Management/EHS</b>
<b>9</b>	<b>Environmental Training of Facility Staff</b>	Update training presentation and ensure training of key managerial staff	<b>Q2/Q3 2014</b>	<b>Site Management/EHS</b>
<b>10</b>	<b>Site Signage</b>	Facility Notice Boards to be replaced to reflect new ownership	<b>Q1 2014</b>	<b>Site Management/EHS</b>

### **7.3 Communications Programme**

Greenstar are committed to setting the standard in waste management and ensuring environmental compliance in all operations. To this end Greenstar has drawn up a Communications Programme, which details how members of the public are facilitated in accessing environmental information at the facility.

Records available for public inspection on-site include:-

- Environmental, Health & Safety Policy;
- Waste Licence;
- Licence Application and Review documentation;
- Monitoring Records;
- Complaints File;
- EPA Correspondence File.

Opening Times for Inspection of Records are from 10 am – 4 pm.

Visits to the site should be arranged in advance by ringing the Facility Manager or Supervisor at 071 - 9143037.

### **7.4 ELRA & Report on Financial Provision**

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

---

## **8. OTHER REPORTS**

---

### **8.1 European Pollutant Release and Transfer Register Regulation**

Under the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006 Greenstar are required to submit information annually to the Agency. A copy of the information submitted to the Agency via the web-based data reporting system is included in Appendix 1.

# **APPENDIX 1**

## European Pollutant Release and Transfer Register

[Guidance to completing the PRTR workbook](#)

# AER Returns Workbook

Version 1.1.18

<b>REFERENCE YEAR</b>	2013
-----------------------	------

## 1. FACILITY IDENTIFICATION

Parent Company Name	Starrus Eco Holdings Limited
Facility Name	
PRTR Identification Number	W0058
Licence Number	W0058-01

### Waste or IPPC Classes of Activity

No.	class_name
3.11	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
Address 1	Deepwater Quay
Address 2	Sligo
Address 3	
Address 4	
	Sligo
Country	Ireland
Coordinates of Location	-8.48919 54.28
River Basin District	IEWE
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
<b>AER Returns Contact Name</b>	Malcolm Dowling
<b>AER Returns Contact Email Address</b>	malcolm.dowling@greenstar.ie
<b>AER Returns Contact Position</b>	Group Compliance Manager
<b>AER Returns Contact Telephone Number</b>	012947976
<b>AER Returns Contact Mobile Phone Number</b>	
<b>AER Returns Contact Fax Number</b>	
<b>Production Volume</b>	0.0
<b>Production Volume Units</b>	
<b>Number of Installations</b>	0
<b>Number of Operating Hours in Year</b>	0
<b>Number of Employees</b>	8
<b>User Feedback/Comments</b>	As the samples are grab samples there can be a variation in concentrations throughout the year. All ELVs were complied with
<b>Web Address</b>	

## 2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(c)	Installations for the disposal of non-hazardous waste
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?	No
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

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

| PRTR# : W0058 | Facility Name : | Filename : W0058\_2013.xls | Return Year : 2013 |

31/03/2014 16:51

**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		Emission Point 1	QUANTITY	
			Method Code	Designation or Description		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		Emission Point 1	QUANTITY	
			Method Code	Designation or Description		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

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : W0058 | Facility Name : | Filename : W0058\_2013.xls | Return Year : 2013 |

31/03/2014 16:49

**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 Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
06	Ammonia (NH3)	M	ALT	Floorwash down	0.088	0.088	0.0	0.0
					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 Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
306	COD	M	ALT	Floor Washdown	2.21	2.21	0.0	0.0
303	BOD	M	ALT	Floor Washdown	0.38	0.38	0.0	0.0
308	Detergents (as MBAS)	M	ALT	Floor Washdown	0.004	0.004	0.0	0.0
314	Fats, Oils and Greases	M	ALT	Floor Washdown	0.789	0.789	0.0	0.0
324	Mineral oils	M	ALT	Floor Washdown	0.001	0.001	0.0	0.0
<b>240</b>	<b>Suspended Solids</b>	M	ALT	Floor Washdown	1.66	1.66	0.0	0.0

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



4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

| PRTR# : W0058 | Facility Name : | Filename : W0058\_2013.xls | Return Year : 2013 |

31/03/2014 16:49

**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 facility

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

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : W0058 | Facility Name : | Filename : W0058\_2013.xls | Return Year : 2013 |

31/03/2014 16:44

**SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS**

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

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

**SECTION B : REMAINING PRTR POLLUTANTS**

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

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

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

POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
						0.0	0.0	0.0

\* 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:

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR#: W0058 | Facility Name: | Filename: W0058\_2013.xls | Return Year: 2013 |

31/03/2014 16:52

Please enter all quantities on this sheet in Tonnes

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: 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		Non	Non Haz Waste: Address of Recover/Disposer				
Within the Country	02 07 05	No	543.0	sludges from on-site effluent treatment	R13	M	Weighed	Offsite in Ireland	Envirogrind Ltd,env/143/wp4		Donegal Road Pettigo		Pettigo,Donegal ,,,, Ireland	
To Other Countries	15 01 01	No	545.0	paper and cardboard packaging	R13	M	Weighed	Abroad	MLM Ltd (ACM Europe UK),TFS Broker	IRE/G021/11	.....,UNITED KINGDOM			
To Other Countries	15 01 01	No	141.0	paper and cardboard packaging	R13	M	Weighed	Abroad	Cellmark USA, IRE/G180/11		200 Tamal Plaza., California		,, 95245 ,United States	
To Other Countries	15 01 01	No	452.0	paper and cardboard packaging	R13	M	Weighed	Abroad	Mark Lydon Enterprises Ltd,IRE/G021/12		.....,United Kingdom			
Within the Country	15 01 02	No	167.0	plastic packaging	R13	M	Weighed	Offsite in Ireland	Leinster Environmental,WP		Haggartstown,....Dundalk,Co		Louth,Ireland	
Within the Country	15 01 07	No	31.0	glass packaging	R13	M	Weighed	Offsite in Ireland	Rehab Recycling Ltd. ,WPR	004	Ballymount Avenue		,Clondalkin,Dublin	
To Other Countries	16 03 06	No	189.0	organic wastes other than those mentioned in 16 03 05	R13	M	Weighed	Abroad	JBR Recovery Ltd,EPR/BJ9878IQ		Oldbury		Road,Westbromich,Westmidl	ands,B70 9BS,UNITED KINGDOM
Within the Country	17 09 04	No	58.0	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	Norris Plant Hire ,WP SO-05-	52	Cloverhill ,,,,Co Sligo,Ireland		Rosemount Business	
Within the Country	20 01 01	No	3.0	paper and cardboard	R13	M	Weighed	Offsite in Ireland	Bailey Waste,WFP-FG-08-	002-01	park,.,ballycoolin dublin		11,.,Ireland	
Within the Country	20 01 02	No	39.0	glass	R13	M	Weighed	Offsite in Ireland	Rehab Recycling Ltd. ,WPR	004	Ballymount Avenue		,Clondalkin,Dublin	
Within the Country	20 01 08	No	75.0	biodegradable kitchen and canteen waste	R13	M	Weighed	Offsite in Ireland	Barna Waste ,W0106-02		Carrowbrowne,Headford		Rd,Co Galway,., Ireland	
Within the Country	20 01 11	No	8.0	textiles	R13	M	Weighed	Offsite in Ireland	Textile Recycling Ltd,WPR014		Greenogue,Dublin		24,.,.,Ireland	
Within the Country	20 01 40	No	32.0	metals	R13	M	Weighed	Offsite in Ireland	Clearcircle Metals Ltd.,		.....,Limerick,.,ireland		Millennium Business Park	
Within the Country	20 03 01	No	18.0	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Greenstar Limited ,W0183-	01	.,Ballycoolin, Dublin 11,		Ireland	
Within the Country	20 03 01	No	306.0	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Indaver,W0167-02		Carranstown,Duleek,Meath,.,		Ireland	
Within the Country	20 03 07	No	344.0	bulky waste	D1	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0146-02		Knockharley,Co		Meath,.,.,Ireland	
Within the Country	20 03 07	No	226.0	bulky waste	R13	M	Weighed	Offsite in Ireland	Greenstar Limited ,W0183-	01	.,Ballycoolin, Dublin 11,		Ireland	
Within the Country	20 03 07	No	480.0	bulky waste	D5	M	Weighed	Offsite in Ireland	Bord Na Mona,W0201-03		Drehid Landfill,Co		Kildare,.,.,Ireland	
Within the Country	02 07 05	No	30.0	sludges from on-site effluent treatment	R13	M	Weighed	Offsite in Ireland	Bord Na Mona,W0201-03		Drehid Landfill,Co		Kildare,.,.,Ireland	
Within the Country	15 01 01	No	72.0	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	materia Environment,.,		.....,Ireland		Marwin Environmental	
Within the Country	15 01 01	No	53.0	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Trading Ltd.,		.....,Ireland			
Within the Country	15 01 01	No	54.0	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	MRF Rosemount,.,		.....,Ireland			
Within the Country	15 01 04	No	5.0	metallic packaging	R13	M	Weighed	Offsite in Ireland	Casual ( Single),.,		.....,Ireland			
Within the Country	15 01 06	No	36.0	mixed packaging	R13	M	Weighed	Offsite in Ireland	MRF Bray,.,		.....,ireland			
Within the Country	15 01 06	No	1675.0	mixed packaging	R13	M	Weighed	Offsite in Ireland	Barna Waste ,W0106-02		Carrowbrowne,Headford		Rd,Co Galway,., . Ireland	

Within the Country	19 08 12	No	14.0 sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11	R13	M	Weighed	Offsite in Ireland	Envirogrind Ltd,env/143/wp4	Donegal Road Pettigo ,Pettigo,Donegal ,,,, Ireland
Within the Country	19 09 02	No	15.0 sludges from water clarification	R13	M	Weighed	Offsite in Ireland	Envirogrind Ltd,env/143/wp4	Donegal Road Pettigo ,Pettigo,Donegal ,,,, Ireland
Within the Country	19 12 07	No	27.0 wood other than that mentioned in 19 12 06	R13	M	Weighed	Offsite in Ireland	Arigna Fuels Ltd. ,WMP 14/06	Arigna ,,, Carrick-On-Shannon ,Co. Roscommon ,, Ireland
Within the Country	19 12 09	No	170.0 minerals (for example sand, stones) other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R13	M	Weighed	Offsite in Ireland	Norris Plant Hire ,WP SO-05-52	Cloverhill ,,,,Co Sligo,Ireland
Within the Country	19 12 12	No	1652.0 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R13	M	Weighed	Offsite in Ireland	Greenstar Limited ,W0183-01	Millennium Business Park ,,Ballycoolin, Dublin 11, Ireland
Within the Country	19 12 12	No	2069.0 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0146-02	Knockharley,Co Meath,,,,Ireland
Within the Country	19 12 12	No	39.0 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R13	M	Weighed	Offsite in Ireland	Indaver,W0167-02	Carranstown,Duleek,Meath,, Ireland
Within the Country	19 12 12	No	6561.0 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R13	M	Weighed	Offsite in Ireland	Bord Na Mona,W0201-03	Drehid Landfill,Co Kildare,,,,Ireland
Within the Country	20 01 01	No	211.0 paper and cardboard	R13	M	Weighed	Offsite in Ireland	MRF Rosemount,.	,,,,,,Ireland
Within the Country	20 01 01	No	64.0 paper and cardboard	R13	M	Weighed	Offsite in Ireland	MRF Bray,.	,,,,,,Ireland
Within the Country	20 01 36	No	168.0 discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R13	M	Weighed	Offsite in Ireland	KMK Metals,W0113-03	Tullamore,,,,Co Offaly,Ireland
Within the Country	20 01 40	No	15.0 metals	R13	M	Weighed	Offsite in Ireland	Davis recycling International Ltd,.	,,,,,,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



<b>Doc. No.:</b> Control	<b>Revision No.:</b> As Shown	<b>Issue Date:</b> As Shown
<b>Approved By:</b>	Malcolm Dowling – Group Environmental Manager Oliver Callan – Group H&S Manager	<b>Page 1 of 5</b>

**Integrated Procedures - IP**

IP-01	Document & Record Control Procedure	Rev 01, 05/07/10
IP-02	Health & Safety Risk Assessment Procedure	Rev 01, 05/07/10
IP-03	Environmental Aspects & Impacts Procedure	Rev 02, 09/09/13
IP-04	Legal & Regulatory Requirements Procedure	Rev 02, 09/09/13
IP-05	Objectives, Targets & Management Programmes Procedure	Rev 02, 09/09/13
IP-06	Competence, Training & Awareness Procedure	Rev 03, 15/04/13
IP-07	Communication & Consultation Procedure	Rev 01, 05/07/10
IP-08	Monitoring, Measurement & Improvement Procedure	Rev 01, 05/07/10
IP-09	Evaluation of Compliance Procedure	Rev 02, 15/09/11
IP-10	Non Conformances, Corrective/Preventive Actions Procedure	Rev 03, 01/02/11
IP-11	Internal Audit Procedure	Rev 03, 28/05/12
IP-12	Management Review Procedure	Rev 01, 05/07/10
IP-13	Control of Contractors/Visitors Procedure	Rev 03, 08/06/12
IP-14	Health & Safety & Environmental Monitoring	Rev 02, 29/10/10
IP-15	Emergency Preparedness & Response Procedure	Rev 02, 01/02/11
IP-16	Accident Prevention Procedure	Rev 03, 30/06/13

**Safety Procedures - SP**

SP-01	Permit to Work Procedure	Rev 02, 03/05/12
SP-02	Maintenance & Calibration Procedure	Rev 03, 04/04/11
SP-03	Mobile Plant Procedure	Rev 01, 05/07/10
SP-04	Fork Truck Procedure	Rev 01, 05/07/10
SP-05	Operation of Fixed Plant Procedure	Rev 01, 05/07/10
SP-06	Lock Out / Tag Out Procedure	Rev 01, 05/07/10
SP-07	Health & Safety Notification Procedure	Rev 01, 05/07/10
SP-08	Motor Claim Notification Procedure	Rev 01, 01/02/11
SP-09	MSW Shredder routine Maintenance & Clearing of Blockages Procedure (SCGT)	Rev 01, 01/12/11
SP-10	Weighbridge & Tipping Procedure (SCGT)	Rev 01, 01/12/11
SP-11	Cleaning of Washing Bay (Greenogue)	Rev 01, 05/05/12
SP-12	Ballymount CRF Safe Systems of Work	Rev 01, 23/09/13



<b>Doc. No.: Control</b>	<b>Revision No.: As Shown</b>	<b>Issue Date: As Shown</b>
<b>Approved By:</b>	Malcolm Dowling – <i>Group Environmental Manager</i> Oliver Callan – <i>Group H&amp;S Manager</i>	<b>Page 2 of 5</b>

**Environmental Procedures - EP**

EP-01	Office Waste & Energy Management Procedure	Rev 01, 05/07/10
EP-02	Decommissioning and Aftercare Procedure	Rev 02, 14/09/11
EP-03	Environment Communications Procedure	Rev 03, 16/10/13
EP-04	Waste Permits & Licences Procedure	Rev 01, 05/07/10
EP-05	Waste Acceptance Procedure	Rev 01, 05/07/10
EP-06	Unacceptable Waste Procedure	Rev 01, 05/07/10
EP-07	Waste & Material Storage Procedure	Rev 01, 05/07/10
EP-08	Waste Processing Procedure	Rev 01, 05/07/10
EP-09	Site Infrastructure Procedure	Rev 01, 05/07/10
EP-10	Nuisance Management Procedure (Site Specific)	(Site Specific)
EP-11	Civic Amenity Site Procedure	Rev 01, 05/07/10

<b>Doc. No.:</b> Control	<b>Revision No.:</b> 02	<b>Issue Date:</b> 1 <sup>st</sup> February 2011
<b>Approved By:</b>	Malcolm Dowling – Group Environmental Manager Oliver Callan – Group H&S Manager	<b>Page 3 of 5</b>

**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





<b>Doc. No.: Control</b>	<b>Revision No.: 02</b>	<b>Issue Date: 1<sup>st</sup> February 2011</b>
<b>Approved By:</b>	Malcolm Dowling – <i>Group Environmental Manager</i> Oliver Callan – <i>Group H&amp;S Manager</i>	<b>Page 4 of 5</b>

Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
30/06/13	25	IP-16	1	Inclusion of new procedure	M.D.
09/09/13	26	IP-03	2	Use of Scannell Software Solutions (Enviromanager) instead of IF-03A	M.D & O.C
09/09/13	27	IP-04	3	Use of Scannell Software Solutions (Enviromanager) instead of IF-03A	M.D & O.C
09/09/13	28	IP-05	2	Use of Scannell Software Solutions (Enviromanager) instead of IF-03A	M.D & O.C
16/10/13	29	EP-03	3	Introduction of EPA ALDER Portal	K.B
23/09/13	30	SP-12	1	Introduction of SP-12O.C	



<b>Doc. No.:</b> Control	<b>Revision No.:</b> 02	<b>Issue Date:</b> 1 <sup>st</sup> February 2011
<b>Approved By:</b>	Malcolm Dowling – <i>Group Environmental Manager</i> Oliver Callan – <i>Group H&amp;S Manager</i>	<b>Page 5 of 5</b>

**Circulation List**

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

<b>Copy Number</b>	<b>Holder</b>
1 (Master Copy)	Environmental, Health & Safety (EHS) Executive
2	Greenstar Limited Intranet – Electronic Copy