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Mr Joe Hunter,
Office of Environmental Enforcement,
South/South West Region,
Environmental Protection Agency,
Curraleigh,
Inniscarra,
Co. Cork

28th March 2012

RE: Annual Environmental Report – Greenstar Environmental Services Ltd – Dock Road, Limerick (Reg. No. W0082-02)

Dear Mr Hunter,

Please find enclosed original and 2 no. copies of the 2012 Annual Environmental Report for the above referenced site.

Yours sincerely,

Michael Watson

1204803/MW/CW
Encl
CC: Mr Malcolm Dowling, Greenstar Ltd.
Ms Mary Dwane, GES, Dock Road, Limerick

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ANNUAL ENVIRONMENTAL REPORT

GREENSTAR ENVIRONMENTAL SERVICES LIMITED

MATERIALS RECOVERY FACILITY

DOCK ROAD, LIMERICK

LICENCE NO. W0082-02

JANUARY 2012 – DECEMBER 2012

Prepared For: -

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

Prepared By: -

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

28th March 2013

Project	Annual Environmental Report 2013			
Client	Greenstar Environmental Services Ltd. W0082-02			
Report No	Date	Status	Prepared By	Reviewed By
0480305	13/03/2013	Draft	Michael Watson MA, MCIWM.	Mr Jim O'Callaghan MSc
	15/03/2013	Draft	Michael Watson MA, MCIWM.	Mr Jim O'Callaghan MSc
	28/03/2013	Final		

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1. INTRODUCTION

This is the 2012 Annual Environmental Report (AER) for the Greenstar Environmental Services Ltd. (GES), Materials Recovery Facility (MRF) at Ballykeefe, Dock Road, Limerick (W0082-02) and covers the reporting period January 2012 to December 2012. The AER has been prepared in compliance with Condition 10.6 of the Licence.

The content is based on Schedule F of the Licence and the report format follows guidelines set in the "Guidance Note for Annual Environmental Report" issued by the Environmental Protection Agency (Agency)[1]. Cognisance was also taken of the Agency AER Draft Guidance Document and Draft AER Templates issued in January 2013[2].

[1] EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency

[2] EPA (Environmental Protection Agency) 2012 Draft AER Guidance Document

2. SITE DESCRIPTION

2.1 Site Location and Layout

The facility is located on the Dock Road in Limerick, in an area dominated by industrial and commercial buildings and activities. It is adjacent to the N69, on the main Limerick to Foynes road.

There are two adjoining buildings, comprising a recycling area and transfer area. There is also a separate office building and adjoining vehicle and plant maintenance workshop located close to the site entrance. The open yard areas are paved and are used for external waste storage bays (C&D, glass, metals and timber), baling and storage of wrapped wastes, skip storage, truck parking and a vehicle washing area (not in use during the reporting period). The entire site, including the floors of the transfer buildings and the open yards, are paved with concrete.

2.2 Waste Management Activities

The Licence allows GES to accept and process 90,000 tonnes of commercial and industrial, construction and demolition and municipal wastes.

2.2.1 Waste Types & Processes

The facility is authorised to accept the following waste types and quantities, as specified in Schedule A of the Licence: -

- Commercial and Industrial Waste (70,000 tonnes),
- Municipal (15,500 tonnes),
- Construction & Demolition (4,500 tonnes).

In July 2012 Schedule A of the Licence was amended by the Agency to allow for the following waste types and quantities-

- Commercial and Industrial Waste (10,500 tonnes),
- Municipal (75,000 tonnes),
- Construction & Demolition (4,500 tonnes).

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

The key processes carried out at the facility include: -

- Segregation of recyclable materials (paper, cardboards, plastic, wood, metals, glass);
- Bulking up of Municipal Solid Waste;
- Segregation and bulking of C&D waste;
- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets, and
- Timber shredding
- Baling and wrapping of waste material (20 03 01)

Commercial and Industrial Waste

Both mixed and segregated commercial waste is collected from commercial sources. Commercial waste rich in recyclables (paper, cardboard, glass, metal, green waste and wood) is delivered by both permitted third party hauliers and by GES vehicles. Plastic, card and paper are baled and stored prior to transfer to a suitable permitted/licensed off-site recycling outlet. Timber recovered from the mixed C&I waste stream and that delivered to the facility as a single waste stream is shredded onsite. Biodegradable wastes suitable for composting are sent to an offsite composting facility. The remaining non-recyclable material is bulked and sent to appropriate licensed disposal facilities.

C&D Waste

Waste loads include mixed construction and demolition wastes and soil and stone. The material arrives in skips of varying sizes. The loads are inspected, with any plasterboard removed and placed in a dedicated skip located inside the building, and the remainder off loaded into an external C&D bay. The majority of the incoming waste is recovered and sent off-site either for re-use or recycling. The non-recyclable materials are transferred to a licensed landfill.

Municipal Waste

All mixed MSW is handled inside the building. The incoming waste is deposited on the floor of the building and is then compacted, for removal and disposal at an approved residual landfill facility or re-directed to the onsite baler for the production of wrapped bales of waste material for export to approved recovery facilities.

Timber Shredding

Untreated timber pallets and untreated construction timbers were shredded in the northern area of the yard and stored in a shred timber bay prior to dispatch either for use as a compost bulking/aeration agent, or as raw material for chipboard/MDF manufacturers. This process was discontinued in 2012.

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 capacity.

Table 2.1 Existing Plant

No.	Plant	Operational Capacity tpd	Standby Capacity tpd
1	360° Komatsu Excavator	100	70
1	Volvo Loading Shovel	500	350
2	Doppstadt shredders	200	150
1	Doppstadt trommel	200	140
1	Waste Baler	200	150

3. EMISSION MONITORING

The monitoring specified in the licence includes surface water, wastewater, groundwater, dust and noise monitoring. The monitoring locations are shown on Figure 3.1. The monitoring results are included in reports submitted to the Agency at quarterly intervals and an overview of the monitoring completed in 2012 is presented in this Section.

3.1 Surface Water Monitoring

Surface water is generated by rainfall on roofs and the paved open yard areas. The run-off is collected and is currently discharged via 1 No. three chamber interceptor to a man made drain at the eastern site boundary. The drain discharges to the Ballinacurra Creek, which ultimately joins the River Shannon.

The Licence requires surface water monitoring at two discharge points from the oil interceptor (FE1A and FE1B) FE1B is at the overflow point and the only flow occurs during periods of very high rainfall. Following discussions with the Agency in January 2012 the discharge point FE1B was sealed and all discharges from the interceptor directed through FE1A.

Monitoring is also required in the drain upstream (WS9) and downstream (WS10) of the discharge points. In July 2007, the Agency amended the monitoring programme to include an inspection chamber on the surface water drainage system prior to treatment at the interceptors (Metal Bay manhole (MH) 5). Following agreement with the Agency in Q1 2012, monitoring of MH-5 ceased after February 2012.

The monitoring results are included on Tables 3.1 to 3.5. The proposed emission limit value (ELV) for BOD and TSS were exceeded at the discharge in February, July and October. In April and November 2012 BOD was exceeded at the discharge location.

Table 3.1 Surface Water Monitoring Results – February 2012

Parameter	Units	MH-5	WS9 - UP	FE1A Discharge	WS10-DOWN	Range 2011	ELV*	EQS
pH	pH units	7.55	8.28	7.76	8.21		-	
BOD	mg/l	42	1	44	2	*4-106*	*25*	
Total Suspended Solids	mg/l	37	12	86	<10	*<1-113*	*60*	
Ammonia Nitrogen	mg/l	3.15	0.45	3.64	0.93		*4*	
Fats Oils Grease	mg/l	<0.01	<0.01	0.52	<0.01		-	-
Mineral Oils	mg/l	<0.01	<0.01	<0.01	<0.01		*5*	*0.01*
TOC	mg/l	40	6	48	15		-	-
Arsenic - dissolved	ug/l	<0.9	<0.9	<0.9	2			*25*
Cadmium - dissolved	ug/l	<0.03	<0.03	<0.03	<0.03		-	*5*
Chromium - dissolved	ug/l	0.5	<0.2	0.5	<0.2		-	*30*
Copper - dissolved	ug/l	10	3	<3	<3		-	*30*
Mercury - dissolved	ug/l	<0.5	<0.5	<0.5	<0.5		-	*1*
Nickel - dissolved	ug/l	14	1.2	14.1	<0.2		-	*20*
Lead - dissolved	ug/l	3	1.9	1.2	0.7		-	*10*
Zinc - dissolved	ug/l	117.8	1.7	47.5	<1.5		-	*100*

* ELV applies to discharges – FE1A & B only.
# No flow at monitoring location

Table 3.2 Surface Water Monitoring Results – April 2012

Parameter	Units	WS9 - UP	FE1A Discharge	WS10-DOWN	Range 2011	ELV*	EQS
pH	pH units	8.16	7.79	8.24		-	
BOD	mg/l	1	37	4	*4-106*	*25*	
Total Suspended Solids	mg/l	40	12	<10	*<1-113*	*60*	
Ammonia Nitrogen	mg/l	0.20	1.99	0.27		*4*	
Fats Oils Grease	mg/l	<0.01	<0.01	<0.01		-	-
Mineral Oils	mg/l	<0.01	<0.01	<0.01		*5*	*0.01*
TOC	mg/l	18	40	20		-	-
Arsenic - dissolved	ug/l	<2.5	<2.5	<2.5			*25*
Cadmium - dissolved	ug/l	<0.5	<0.5	<0.5		-	*5*
Chromium - dissolved	ug/l	<1.5	2.4	<1.5		-	*30*
Copper - dissolved	ug/l	<7	<7	<7		-	*30*
Mercury - dissolved	ug/l	<1	<1	<1		-	*1*
Nickel - dissolved	ug/l	<2	6	<2		-	*20*
Lead - dissolved	ug/l	<5	<5	<5		-	*10*
Zinc - dissolved	ug/l	8	24	5		-	*100*

* ELV applies to discharges – FE1A & B only.

Table 3.3 Surface Water Monitoring Results – 3rd July 2012

Parameter	Units	WS9 - UP	FE1A Discharge	WS10-DOWN	Range 2011	ELV*	EQS
pH	pH units	7.44	7.15	7.50		-	
BOD	mg/l	2	72	2	*4-106*	*25*	
Total Suspended Solids	mg/l	<2	130	2	*<1-113*	*60*	
Ammonia Nitrogen	mg/l	<1	<1	<1		*4*	
Fats Oils Grease	mg/l	<1	17.2	<1		-	-
Mineral Oils	mg/l	<0.001	0.013	<0.001		*5*	*0.01*
TOC	mg/l	<7	33	<7		-	-
Arsenic - dissolved	mg/l	3	5	3			*25*
Cadmium - dissolved	mg/l	<0.2	<0.2	<0.2		-	*5*
Chromium - dissolved	mg/kg	<1	<1	<1		-	*30*
Copper - dissolved	mg/l	<0.2	<0.2	<0.2		-	*30*
Mercury - dissolved	mg/l	0.1	0.2	<0.01		-	*1*
Nickel - dissolved	mg/l	<0.2	<0.2	<0.2		-	*20*
Lead - dissolved	mg/l	<0.2	<0.2	<0.2		-	*10*
Zinc - dissolved	mg/l	<0.2	<0.2	<0.2		-	*100*

* ELV applies to discharges – FE1A & B only

Table 3.4 Surface Water Monitoring Results – 5th October 2012

Parameter	Units	WS9 - UP	FE1A Discharge	WS10-DOWN	Range 2011	Trigger *	ELV*	EQS
pH	pH units	7.24	6.41	6.82			-	
BOD	mg/l	7	176	89	*4-106*	*25*		
Total Suspended Solids	mg/l	9	70	51	*<1-113*	*60*	*60*	
Ammonia Nitrogen	mg/l	0.51	0.29	0.04			*4*	
Fats Oils Grease	mg/l	<1	11.1	3.3			-	-
Mineral Oils	ug/l	<1	2.03	<1			*5*	*0.01*
TOC	mg/l	4	39.32	19.27			-	-
Arsenic - dissolved	ug/l	1	1	1				*25*
Cadmium - dissolved	ug/l	0.2	0.2	0.2			-	*5*
Chromium - dissolved	ug/l	<0.6	2	1			-	*30*
Copper - dissolved	ug/l	13	16	13			-	*30*
Mercury - dissolved	ug/l	0.1	0.1	0.1			-	*1*
Nickel - dissolved	ug/l	<2	4.4	2.4			-	*20*
Lead - dissolved	ug/l	<0.8	1.10	1.4			-	*10*
Zinc - dissolved	ug/l	11	22	13			-	*100*

* ELV & Trigger applies to discharges – FE1A only.

Table 3.5 Surface Water Monitoring Results – 2nd November 2012

Parameter	Units	WS9 - UP	FE1A Discharge	WS10-DOWN	Range 2011	Trigger *	ELV*	EQS
pH	pH units	7.36	6.77	7.27			-	
BOD	mg/l	2	*50*	8	*4-106*	*25*		
Total Suspended Solids	mg/l	8	*50*	15	*<1-113*	*60*	*60*	
Ammonia Nitrogen	mg/l	0.27	0.14	0.19			*4*	
Fats Oils Grease	mg/l	<1	1.2	<1			-	-
Mineral Oils	ug/l	<1	<1	<1			*5*	*0.01*
TOC	mg/l	3.57	22.63	4.25			-	-
Arsenic - dissolved	ug/l	0.001	0.002	0.001				*25*
Cadmium - dissolved	ug/l	0.2	0.2				-	*5*
Chromium - dissolved	ug/l	2	1	<0.6			-	*30*
Copper - dissolved	ug/l	3	4	3			-	*30*
Mercury - dissolved	ug/l	0.0001	0.0001	<0.0001			-	*1*
Nickel - dissolved	ug/l	<2	2.6	<2			-	*20*
Lead - dissolved	ug/l	<0.8	0.8	<0.8			-	*10*
Zinc - dissolved	ug/l	8	20	15			-	*100*

* ELV & Trigger applies to discharges – FE1A only.

Limerick County Council Monitoring

An engineer from Limerick County Council collected a sample from the drain, approximately 2m downstream of the GES surface water discharge on the 19th December 2012. The Council noted that there was no discharge from the GES site at the time the sample was taken. It is understood that the sampling is part of a wider surface water assessment being completed by the Council in this area of Dock Road. GES and other neighbours in the area are currently assisting the Council with their work in attempting to map the surface water flows in the vicinity of the industrial area.

The results, which are presented on Table 3.6, show the quality of the water in the drain immediately downstream of the GES discharge location was good. Nitrate, orthophosphate and hydrocarbons were not detected. The BOD, COD, TSS and ammonia levels were also low.

Table 3.6 Surface Water Monitoring Results – 19th December 2012

Parameter	Units	WS7 DOWN	Trigger*	ELV*
COD	pH units	25		-
BOD	mg/l	6	*25*	
Total Suspended Solids	mg/l	23	*60*	*60*
Ammonia Nitrogen	mg/l	0.99		*4*
Nitrate	mg/l	<2		-
Ortophosphate	mg/l	<0.025		-
Hydrocarbons	mg/l	<0.01		-

3.2 Foul water Monitoring

Foul water is treated in the on-site Klargestor treatment plant, with the treated effluent discharged to an on-site percolation area. Following a request by the Agency in December 2011 a detailed Waste Water Treatment System Risk Assessment was completed by IE Consulting Engineers in 2012. The report showed that the average daily treated effluent discharge to the percolation area is 0.4m^3/day, which is a relatively low volume of discharge. When rainfall over the percolation area is taken into consideration, the total hydraulic loading is 0.483m^3/day. Effluent monitoring data for 2011 to date indicates concentrations of all parameters within the treated effluent (pre sand filter) are within the Agency's recommended minimum performance standards and within the manufacturer's design standards.

Foul water monitoring is required at two monitoring locations, FE2 which is the discharge from the treatment plant and at the truckwash discharge. The truckwash has not been used since Q3 2010 and therefore no samples were collected at this location during the monitoring period.

The monitoring results are included on Table 3.7. There are no ELVs set in the licence and for comparative purposes the table includes the performance standards set in the EPA Waste Water Treatment Manual Guidelines. The discharge was generally of good quality, with the exception of TSS levels in January and October. The TSS is however relatively low and at this level is not considered significant. The treated effluent discharges to ground and it is understood that the percolation area is not categorised as being located in a nutritionally sensitive area.

Table 3.7 – Foul Water Monitoring Results 2012

Parameter	Units	Jan*	Feb	Apr	June	July	Oct	Dec	Performance Standards
pH	pH units	7.6	6.72	8.21	7.35	7.46	6.73	7.55	*Ns*
BOD	mg/l	3.8	1	<1	2	6	11	-	*20*
TSS	mg/l	37	26	23	<2	26	81	7	*30*
Ammoniacal Nitrogen	mg/l	0.06	2	0.43	0.2	<1	0.12	0.49	*20*
Fats Oils Grease	mg/l	-	<0.01	<0.01	<1	3.4	<1	6.6	*Ns*
Sulphate	mg/l	33	65.61	76.8	26.8	44.3	160.5	56.9	*Ns*
Total Phosphorous	mg/l	-	0.569	0.609	0.17	<1	2.54	0.32	*Ns*
Total Nitrogen	mg/l	-	22.1	14.2	<7	10.47	40.51	<10	*Ns*
Nitrate	mg/l	-	33.6	54.5	15.59	32.60	136.2	26.89	*Ns*
Nitrite	mg/l	-	0.70	0.38	0.16	1.68	<0.66	<0.66	*Ns*
COD	mg/l	44	30	22	15	51	116	29	*Ns*

*EPA monitoring.
-Not Analysed
Ns – Not set

3.3 Groundwater Monitoring

Groundwater monitoring is carried out bi-annually at three wells, GWM1, GWM2 and GWM3. GWM1 is close to the entrance to the dry recyclables recycling building, GWM2 is at the northern site boundary and is downgradient of site activities. GWM3 is outside the operational area and is upgradient of site activities.

The Agency also carried out groundwater monitoring wells in January 2012. The analysis conducte by the Agency included some of the parameters listed in the licence and others that are not. The results are presented on Table 3.8. The results for OCM monitoring carried out in February and October 2012 are presented in Tables 3.9 and 3.10.

There are no ELVs or Trigger Levels set in the Licence. For interpretation purposes the results had, up to Q2 2011, been compared to the Interim Guideline Values (IGV) for groundwater published by the Agency. Since then, the results are also compared to the Threshold Values for groundwater (GTV) quality introduced by the European Communities Environmental Objectives (Groundwater) Regulations 2010 S.I. No 9 of 2010.

The IGV levels represent typical background or unpolluted conditions, however levels higher than the IGV can occur naturally, depending on the local geological and hydrogeological conditions. While the Threshold Values are more appropriate for large scale abstraction wells used for potable supply, they can be used to assess the significance of contamination where present in groundwater. Because not all parameters monitored have been assigned Threshold Values, the relevant IGV continue to be used for comparative purposes.

In February and October, the ammoniacal nitrogen at all monitoring points exceeded both the GTV and IGV. All other parameters were below their respective limits. DRO, Undecane and aliphatic hydrocarbons were not detected at any monitoring locations. All other parameters were below their respective GTV and IGVs.

The Agency monitoring confirmed that the pH, BOD and COD levels were consistent with the monitoring carried out by the licensee, however the TSS level in all three wells was higher than previously detected. The reason for this is unknown. Facility management were not informed of any possible issue over groundwater quality on the day the samples were collected and therefore an investigation into the possible cause was not carried out.

The Agency detected hydrocarbons at GWM1 and GWM2, but not at GWM3. This is not consistent with the findings of the monitoring conducted by the licensee from 2010 to Q3 2012. Low levels of hydrocarbons were detected by the Agency at GWM3 in January & August 2010 and at GWM1 in August 2010. Facility management have confirmed that there were no incidents at the facility prior to the Agency sampling that could be the source of the hydrocarbons and also there were no known offsite incidents that could be a possible source.

The hydrocarbon results are considered unusual in the context of the previous and subsequent (February and August 2012) monitoring carried out at the site by both GES and the Agency and suggest that the results may be anomalous.

Table 3.8 Agency Groundwater Monitoring Results – January 2012

Parameter	Units	GWM1	GWM2	GWM3	GTV	IGV
pH	-	6.8	7.2	7.3	6-9	6-9
BOD	mg/l	28	11	3.5	-	-
COD	mg/l	380	67	71	-	-
TSS	mg/l	3617	1046	2556	-	-
Oils, Fats & Greases	mg/l	nm	nm	nm	-	-
Mineral Oils	mg/l	0.332	0.459	<0.01	-	0.01
DRO	mg/l	0.755	0.660	<0.046	-	0.01

Nm- Not Measured
- No Value

Table 3.9 Groundwater Monitoring Results – February 2012

Parameter	Units	GWM1	GWM2	GWM3	GTV	IGV
BOD	mg/l	6	1	<1	-	-
TSS	mg/l	6316	310	94	-	-
Dissolved Oxygen	mg/l	7	10	8	-	NAC
Oils, Fats & Greases	mg/l	<0.01	<0.01	<0.01	-	-
Total Phosphorus	mg/l	4.643	0.635	0.100	-	-
Ammoniacal Nitrogen	mg/l	10.51	2.66	0.68	0.175	0.12
Conductivity	mS/cm	0.955	0.882	0.696	1.875	1.000
DRO	mg/l	<0.01	<0.01	<0.01	-	0.01
Aliphatic Hydrocarbons	mg/l	<0.01	<0.01	<0.01	-	0.01
Undecane	mg/l	<0.01	<0.01	<0.01	-	-

Table 3.10 - Groundwater Monitoring Results – 2nd August 2012

Parameter	Units	GWM1	GWM2	GWM3	GTV	IGV
BOD	mg/l	<1	2	<1	-	-
TSS	mg/l	6066	2188	345	-	-
Dissolved Oxygen	mg/l	5	7	7	-	NAC
Oils, Fats & Greases	mg/l	<0.01	<0.01	<0.01	-	-
Total Phosphorus	mg/l	1.755	0.705	0.184	-	-
Ammoniacal Nitrogen	mg/l	9.77	3.90	1.11	0.175	0.12
Conductivity	mS/cm	0.747	0.965	0.855	1.875	1.000
DRO	mg/l	<0.01	<0.01	<0.01	-	0.01
Aliphatic Hydrocarbons	mg/l	<0.01	<0.01	<0.01	-	0.01
Undecane	mg/l	<0.01	<0.01	<0.01	-	-

3.4 Noise Monitoring

The annual noise survey was carried out on the 24th May 2012 at three onsite boundary monitoring (NI1 – NI3) locations and one offsite location (NI4). The survey was conducted when the site was fully operational and confirmed that noise emissions fully complied with the licence conditions and that the facility is not impacting negatively on the nearest sensitive receptors. A summary of the noise results is shown on Table 3.11.

Noise limits set out in the waste licence are considered applicable to Noise Sensitive Locations (NSLs). An inspection of the nearest NSLs during the survey indicated that facility operations were not audible, and thus lower than the 55 dB daytime noise limit. The three onsite locations are dominated by facility activities but there are No NSLs in the vicinity of the these locations. At NI4, GES emissions were not audible.

Table 3.11 Noise Monitoring Results 2012

Station	Time	LAeq 30 min dB	LAF10 30 min dB	LAF90 30 min dB	Specific level* dB	Noise audible
NI1	0821-0851	57	58	48	55	Occasional loader and clamp truck movements audible at low level in main yard. Loader also slightly audible when in building. Loader dominant on sporadic occasions when entering N yard area. Starlings on NW boundary continuously dominant. Road traffic to E continuously significant in background.
NI2	0827-0857	61	62	50	61	Loader and clamp truck operations dominant around yard and in building. Tracked excavator on construction activity near NE corner slightly audible continuously, significantly screened by intervening structures. Tracked excavator with grab operating at 40 m from 0853. Bird calls and offsite road traffic significant.
NI3	0854-0924	54	56	51	53	Clamp truck operating almost continuously in main yard audible at low level. Baler and conveyor in nearest corner of building also continuously audible at low level. Distant road traffic to SW continuously audible at low level. Bird song/calls and rustling vegetation.
NI4	0933-1003	70	73	61	<<61	No site emissions audible, apart from sporadic trucks using access road. Dock Road traffic continuously intrusive. No other noise audible.

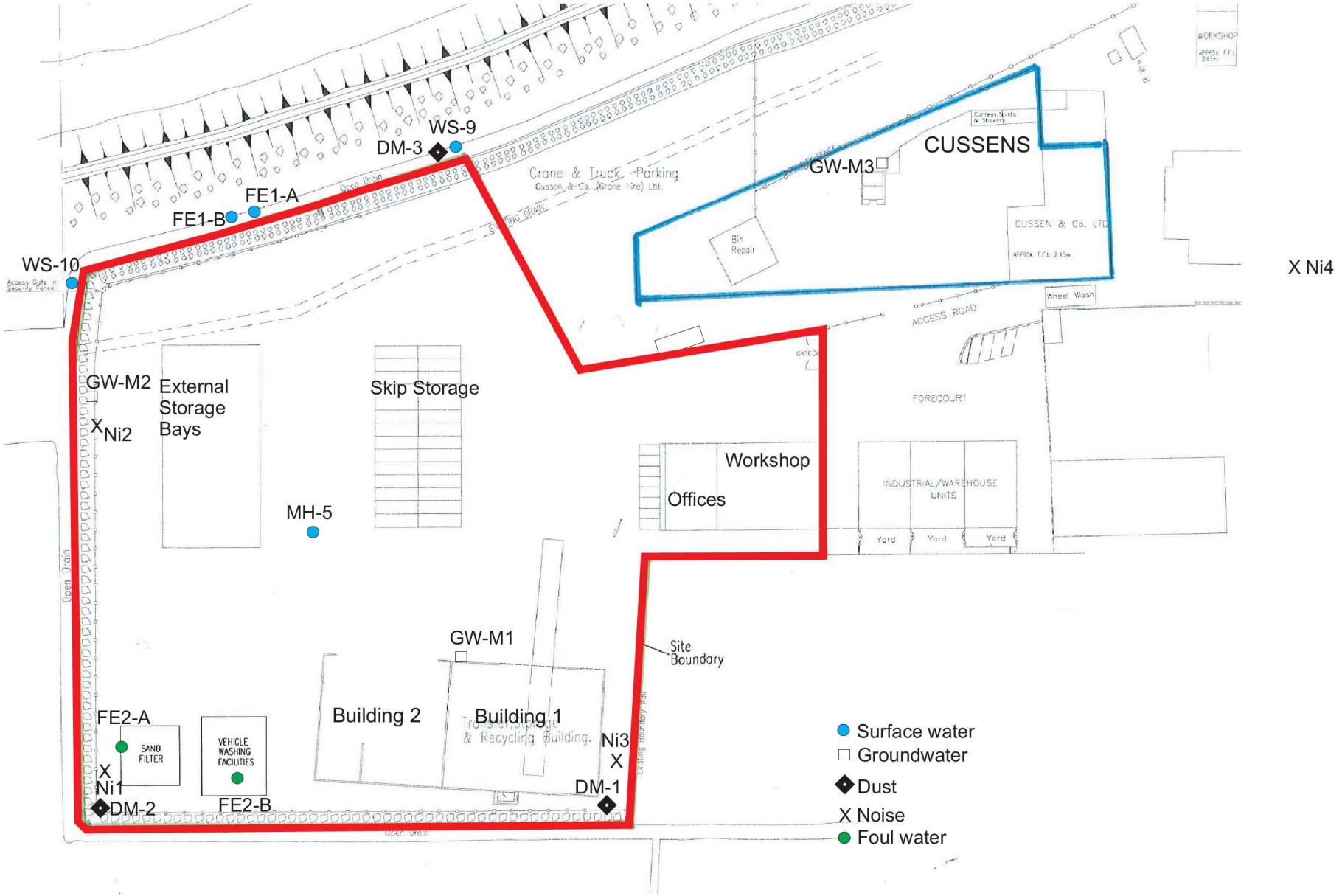
3.5 Dust Monitoring

Dust monitoring was carried out on two occasions (between May and September as required by the licence) at three on-site locations (DM1, DM2 and DM3) in July and July/August 2012. As required by the licence, a third monitoring event for outside this period (October – April) was conducted in December 2012, however due to an oversight the gauges were not submitted to the laboratory for analysis. Additional gauges were erected in January 2013 and are reported here for the winter period. The results of the monitoring are included on Table 3.12.

The dust emission limit (350 mg/m^2/day) was not exceeded at any monitoring location during the monitoring period.

Table 3.12 Dust Monitoring Results 2012

Dust Emission (mg/m^2/day) **Sample Location**	**July** **30 Days**	**July-August** **30 Days**	**January** **30 days**	**Emission Limit (mg/m^2/day)**
DM1	24.3	62.6	17.0	350
DM2	20.6	47.9	11.6	350
DM3	42.5	60.1	4.03	350



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CLIENT
Greenstar Environmental ServicesLtd.

TITLE
Monitoring Locations
Limerick W0082-02

FIGURE NUMBER
3.1

Scale
Not To Scale

Revision
A

4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works (SEW)

No Specified Engineering Works were carried out in 2012. Additional works were carried out, following discussions with Agency, at the surface water monitoring location (FE1a) in Q2 2012. The monitoring location is at the base of an embankment and concrete steps were provided to improve the access.

An extensive CCTV survey of the surface water drainage system was conducted by AQS Drainage Engineers on February 17th 2012. The survey confirmed the surface water layout as well as identifying a number of defects in the surface water lines, some small cracks in the first chamber of the interceptor and further cracks in the pipeline connecting the final chamber of the interceptors to the discharge point at FE1a. Blacklough Constuction Engineers were engaged to carry out the necessary drainage repair works and this was completed in May 2012.

The onsite Klargester system was given a comprehensive service by Molloy Engineering Ltd in September 2012.

4.2 Summary of Resource & Energy Consumption

Table 4.1 presents an estimate of the resources used on-site during the reporting period and for comparative purposes the volumes for 2011.

Table 4.1 Estimate of Resources Used On-Site 2012 & 2011 –

Resources	Quantities 2012	Quantities 2011
Diesel (green)	60,000 litres	43,000 litres
Electricity	113,567 KwH Units	65,000 Units
Hydraulic Oil	4500 litres	400 litres
Engine Oil	1500 litres	150 litres
Mains Water	8200 m^3	265 m^3

4.3 Bund Integrity & Pipeline Testing

The Licence was Technically Amended on February 2nd 2011 and now includes condition 3.11.5 which states that the integrity testing of all underground pipelines and tanks must be carried out every 3 years. This most recent testing bund test was completed in November 2011 and will be carried out again in 2015. The bund was passed fit for purpose.

The integrity of the surface water drainage system including the interceptor was assessed through a CCTV survey in 2012. Defects were subsequently addressed through a range of civil works completed in May 2012.

5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

Table 5.1 shows the total quantities of waste received and consigned from the facility in 2012. Table 5.2 shows the total quantities of waste received and consigned in 2011. Table 5.3 shows the quantities of waste received and consigned in previous years. A breakdown of the waste types is provided in accordance with the European Waste Catalogue and Hazardous Waste list. A more detailed breakdown of the wastes received and consigned is presented in the PRTR submission in Appendix 1. The total quantity of waste received was 55,992 tonnes. The total waste consigned was 55,430 tonnes. The difference (562 tonnes) remained onsite at the end of 2012 pending removal offsite in early 2013.

All the wastes consigned from the site went to authorised recovery and disposal facilities.

Table 5.1 Waste Received & Consigned 2012

EWC	Description	Waste In	Waste Out
06 13 99	Activated Carbon	10.16	
07 01 12	Sludge	263.18	
13 05 03	Sludge	92.76	
15 01 01	Cardboard & Paper Packaging	3,785.85	6,517.37
15 01 02	Plastic Packaging	58.6	444.79
15 01 07	Glass Packaging	108.24	26.68
17 05 04	Soil & Stones	15.12	
17 08 02	Plasterboard from C&D	15.52	
17 09 04	Mixed C&D	1,645.52	2591.54
19 08 12	Interceptor Sludge	3.4	
19 09 02	LDF Filter Cake		349.9
19 12 07	Wood		98.26
19 12 09	Soil & Stone	8.84	
20 01 01	Paper & Cardboard	1,306.07	393.92
20 01 02	Glass	189.36	166.5
20 01 08	Commercial food waste	464.59	182.86
20 01 11	Textiles	9.18	4.04
20 01 23	WEEE	0.68	
20 01 35*	WEEE	2.46	
20 01 38	Timber	721.94	907.88
20 01 39	Plastic	275.90	50.78
20 01 40	Metal	696.62	1,055.09
20 02 01	GreenWaste	8.38	128.54
20 03 01	Mixed Residual Waste	33,341.63	18,678.74
20 03 01	Baled MSW		15,088.38
20 03 01	Mixed Dry Recyclables	8,814.55	7,171.78
20 03 03	Street Cleaning	1,017	
20 03 07	Bulky Waste	3,136.56	1,572.6
	Total Received	**55,992**	
	Total Consigned		**55,430**
	Disposal		**19,055**
	Recovery		**36,375**
	Recovery Rate		**65.62%**

Table 5.2 Waste Received & Consigned 2011

EWC	Description	Waste In	Waste Out
07 02 12	Sludge	336	
13 05 03	Sludge	2,029	
15 01 01	Cardboard & Paper Packaging	2,286	7,584
15 01 02	Plastic Packaging	147	737
15 01 03	Wooden Packaging	9	
15 01 04	Metallic Packaging	28	
15 01 06	Mixed Packaging	6,197	2,252
15 01 07	Glass Packaging	101	147
17 08 02	Plasterboard from C&D	53	21
17 09 04	Mixed C&D	2,370	2320
19 08 01	WWTP Screenings		2,317
19 12 07	Timber		1,396
19 12 12	Mixed Dry C&I		14,332
20 01 01	Paper & Cardboard	1,345	758
20 01 02	Glass	103	1
20 01 08	Commercial food waste	468	268
20 01 35*	WEEE	2	
20 01 38	Timber	997	
20 01 39	Plastic	809	6
20 01 40	Metal	728	1,012
20 02 01	GreenWaste		93
20 03 01	Mixed Residual Waste	10,329	
20 03 01	Mixed Dry Recyclables	4,210	
20 03 07	Bulky Waste	3	98
	Total Received	**32,550**	
	Total Consigned		**33,355**

Table 5.3 Waste Received & Consigned

	2012	2011	2010	2009	2008
Total Received	55,992	32,550	34,835	42,536	58,203
Total Consigned	55,430	33,335	34,476	41,547	58,654

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

The proposed trigger level and emission limit value (ELV) for BOD and TSS respectively were exceeded at the surface water discharge in February, July and October. In April and November 2012 the BOD level exceeded the trigger level at the surface water discharge location. All exceedances were treated as incidents and reported to the Agency, Limerick County Council and the Fisheries board.

6.2 Register of Complaints

GES maintains a register of complaints received in accordance with Condition 10.4 of the Licence. No complaints were received during the reporting period.

7. ENVIRONMENTAL DEVELOPMENT & CONTROL

7.1 Environmental Management Programme Report

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

The IMS has been developed for the achievement of continual improvement taking into account the requirements of the Waste Licence Conditions. GES has prepared and effectively implemented documented procedures and instructions in accordance with the requirements of both the OHSAS 18001:2007 and ISO 14001:2004. Following successful accreditation to both standards in November 2011, two internal surveillance audits were performed during 2012 and found the IMS to be well maintained.

The schedule of Objectives and Targets, including their status for 2012 (Table 7.1), as well as the proposed Objectives and Targets for 2013 (Table 7.2) are presented below. An index of procedures used at the facility is included in Appendix 2.

7.1.1 Site Management Structure

Management and Staffing structure: -

Name: Mary Dwane,

Responsibility: Depot Manager

Experience: 12 years experience waste management experience; has completed the FÁS waste management course.

Name: Michael Whelan,

Responsibility: Facility Manager

Experience: 12 years experience waste management experience; has completed the FÁS waste management course.

7.1.2 Staff Training

Staff training carried out during the year included waste collection permit training. Details on staff training for 2012 are available in the facility office.

7.2 Environmental Management Programme

7.2.1 Schedule of Objectives 2012

The objectives that were achieved during this reporting period are outlined in Table 7.1. Details on the progress made are also included on the table and an evaluation of what has been achieved to date is presented below.

Objective 1 – Awareness and Training

Environmental Awareness Training carried out once every 3 years and was done in Q4 2011 as part of ISO 14001 certification. Staff were trained on the conditions present in the waste collectors permit which helps ensure that only those wastes allowed for acceptance are the facility are collected.

Objective 2 – Energy & Resource Consumption

Reviewed quarterly across the Greenstar/Greenstar Environmental Services Group.

Objective 3 – Review & Assess the Effectiveness of Nuisance Control Procedures

Procedures subject to review during annual internal and external audits or depending on whether there is a change to the operation.

Objective 4 – Pollution Prevention

The surface water drainage system and interceptor is cleaned every 2-3 months as part of a maintenance programme. AQS Drainage Engineers attended the site on the 7th , 8th and 9th of February 2012 and carried out a significant clean out of the surface water system removing approximately 25 tonnes of material off site and consigned to Rilta & ENVA for treatment. Repairs to the surface water drainage system were completed in 2012. Also, to improve access for yard cleaning, a significant number of decommissioned skips and bins were removed from the site during 2012 for recycling.

The onsite Klargester system was given a comprehensive service by Molloy Engineering Ltd in September 2012.

Objective 5 – Monitoring location Access

Access to the surface water monitoring location FE1a was improved in Q2 2012. Concrete steps were provided down an embankment to the surface water discharge pipe (FE1a).

7.2.2 Schedule of Objectives 2013

A schedule of targets and objectives for 2013 has been set by the management of the facility. These objectives are outlined in Table 7.2.

7.3 Communications Programme

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

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

7.4 Report Financial Provision

GES has adequate insurance cover for environmental liabilities to €10,000,000 for any one occurrence, which will apply to "sudden identifiable and unintended incidents".

GES submitted a Decommissioning Plan to the Agency in October 2011. The plan addresses the known liabilities at the facility including site closure. Subject to the agreement of the Agency, GES proposes to place a charge on company assets to cover those costs.

Table 7.1 Objectives and Targets for 2012

No	Objective	Target	Responsibility	Status
1	**Awareness and Training**	Continue to ensure that appropriate training is carried out specific to all site personnel as per the Company's established Training Matrix.	Site Management	Ongoing
2	**Energy & Resource Consumption**	Summarise energy and resource usage on a quarterly basis with a view to reducing consumption	Site Management	Ongoing
3	**Review and Assess the Effectiveness of Nuisance Control Procedures**	Continually review and assess all nuisance control procedures to ensure minimal impact on the surrounding area.	Site Management	Ongoing
4	**Pollution Prevention**	Strive to ensure that emissions comply with the licence limits and investigate any exceedances of emission limit values.	Site Management	Ongoing
		Conduct further repairs to defects in the surface water pipeline system.	Site Management	Completed
5	**Monitoring Location Access**	Improve access to surface water monitoring location FE1a	Site Management	Completed

Table 7.2 Schedule of Objective and Targets 2013

No	Objective	Target	Responsibility	Timescale
1	**Awareness and Training**	Continue to ensure that appropriate training is carried out specific to all site personnel as per the Company's established Training Matrix.	Site Management	Q1 – Q4 2013
2	**Energy & Resource Consumption**	Summarise energy and resource usage on a quarterly basis with a view to reducing consumption	Site Management	Q1 – Q4 2013
3	**Review and Assess the Effectiveness of Nuisance Control Procedures**	Continually review and assess all nuisance control procedures to ensure minimal impact on the surrounding area.	Site Management	Q1 – Q4 2013
		Commission a bird control specialist to assess the facility and compile recommendations regarding any bird control measures which may be employed at the facility should they be required.		
4	**Connect the waste water emissions to the Local Authority WWTP**	Progress agreements with neighbours within the industrial estate and Limerick County Council to allow for the connection of the foul water discharges to the municipal foul sewer.	Site Management	Q1-Q3 2013
5	**Pollution Prevention**	Strive to ensure that emissions comply with the licence limits and investigate any exceedances of emission limit values.	Site Management	Ongoing
6	**Drainage Maintenance**	Conduct further clean outs in the surface water pipeline system and interceptor.	Site Management	Q1 & Q3 2013

No	Objective	Target	Responsibility	Timescale
7	**Odour Management**	Compile an Odour Management Plan for the facility and include it on the training matrix referred to in Objective 1	Site Management	Q2 2013
8	**Aid Limerick County Council with their SW investigation**	Provide assistance to Limerick County Council as they attempt to map the surface water flows in the vicinity of the facility	Site Management	As needed
9	**Licence Review**	Compile Environmental Impact Statement to accompany a planning application and waste licence review application to increase tonnages at the facility.	Group Environmental Manager	Q2 2013
10	**Waste Storage**	Review waste wood processing & storage practices taking account of the recent Agency Position Paper on the Management of Wood Waste	Site Management	Q2 2013

7.5 Nuisance Controls

GES has contracted a vermin control company to carry out nuisance control at the facility. Rentokil Initial Ltd provides and maintains forty bait boxes at the facility and also carries out insect control measures as required. Weekly nuisance and litter inspections are carried out by the Environmental Officer and litter picks are carried out daily.

7.6 European Pollutant Release and Transfer Register Regulation

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

8. OTHER REPORTS

No other reports were specified by the Agency.

APPENDIX 1

European Pollutant Release and Transfer Register

Environmental Protection Agency

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.15

REFERENCE YEAR	2012

1. FACILITY IDENTIFICATION

Parent Company Name	Greenstar Environmental Services Limited
Facility Name	Greenstar Environmental Services Ltd
PRTR Identification Number	W0082
Licence Number	W0082-02

Waste or IPPC Classes of Activity

No.	class_name
3.12	Repackaging 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	Ballykeefe Townland
Address 2	Waste Management Section
Address 3	Dock Road
Address 4	Limerick
	Limerick
Country	Ireland
Coordinates of Location	-8.66662 52.651
River Basin District	IEGBNISH
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
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	20
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

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

4.1 RELEASES TO AIR

Link to previous years emissions data

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: Greenstar Environmental Services Ltd

Please enter summary data on the quantities of methane flared and / or utilised	**T (Total) kg/Year**	**M/C/E**	**Method Used**		**Facility Total Capacity m3 per hour**	
			Method Code	**Designation or Description**		
Total estimated methane generation (as per site model)	0.0				N/A	
Methane flared	0.0				0.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0				N/A	

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					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

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
					0.0	0.0	0.0	0.0

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

4.4 RELEASES TO LAND

Link to previous years emissions data

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

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)
						M/C/E	Method Used				
To Other Countries	15 01 01	No	3275.33	paper and cardboard packaging	R13	M	Weighed	Abroad	Cellmark USA,TFS Broker IRE/G180/11	.,.,.,.,Ireland	
Within the Country	15 01 01	No	23.64	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Bailey Waste Recycling,WFP-FG-08-0002-01	Rosemount Business Park,.,Ballycooling,Dublin,Ireland	
To Other Countries	15 01 01	No	445.08	paper and cardboard packaging	R13	M	Weighed	Abroad	Marwin,IRE/AG027/11	.,.,.,.,IRELAND	
Within the Country	15 01 01	No	128.4	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Irish Paper Recycling Ltd,W0263-01	Ballymount Road,Walkinstown,.,Dublin 12,Ireland	
To Other Countries	15 01 01	No	1837.94	paper and cardboard packaging	R13	M	Weighed	Abroad	MLM Ltd,Broker IRE / G 022/11	.,.,.,.,Ireland	
To Other Countries	15 01 02	No	102.64	plastic packaging	R13	M	Weighed	Abroad	Choice Waste Management,IRE/AG050/11	.,.,.,.,Ireland	
Within the Country	15 01 02	No	270.27	plastic packaging	R13	M	Weighed	Offsite in Ireland	Leinster Environmental,WFP-LH-09-0004-01	Dundalk,.,.,.,Louth,Ireland	
Within the Country	15 01 02	No	24.74	plastic packaging	R13	M	Weighed	Offsite in Ireland	Irish Paper Recycling Ltd,W0263-01	Ballymount Road,Walkinstown,.,Dublin 12,Ireland	
Within the Country	20 03 01	No	191.28	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	WERS Ltd,WFP-G-09-0002-01	Tuam,.,.,Galway,Ireland	
Within the Country	20 01 39	No	18.76	plastics	R13	M	Weighed	Offsite in Ireland	WERS Ltd,WFP-G-09-0002-01	Tuam,.,.,Galway,Ireland	
Within the Country	20 03 01	No	1007.82	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Kilarney Waste Disposal,W0217-01	Kilarney ,.,.,Co Kerry,Ireland	
Within the Country	20 01 08	No	182.86	biodegradable kitchen and canteen waste	R13	M	Weighed	Offsite in Ireland	Acorn Recycling Ltd,. W0249-01	Ballybeg Composting Facility,Littleton,.,Co Tipperary,Ireland	
Within the Country	19 12 07	No	4.78	wood other than that mentioned in 19 12 06	R13	M	Weighed	Offsite in Ireland	martin Ryan Haulage,.	.,.,.,.,Ireland	
Within the Country	20 01 38	No	217.82	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Cremins Farm Compost,WFPLK2009 23A R1	Broadford,.,.,Co Limerick,Ireland	
Within the Country	20 01 38	No	376.78	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Eirebloc,ck (s0503-07)	Lissarda,.,.,Co Cork,Ireland	
Within the Country	19 12 07	No	93.48	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd,WP-008-02	Lawlesstown,Clonmel,.,Co Tipperary,ireland	
Within the Country	20 03 07	No	50.98	bulky waste	D15	M	Weighed	Offsite in Ireland	Greenstar Millennium,w0183-01	Ballycoolin,.,.,Dublin,Ireland	
Within the Country	20 03 07	No	1374.12	bulky waste	R13	M	Weighed	Offsite in Ireland	Greenstar Millennium,w0183-01	Ballycoolin,.,.,Dublin,Ireland	
Within the Country	20 03 01	No	7105.94	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Greenstar Connaught Landfill,W0178-01	.,.,Kilconnell,Co Galway,Ireland	
Within the Country	20 03 07	No	24.2	bulky waste	D5	M	Weighed	Offsite in Ireland	Greenstar Knockharley,W0146-01	Knockharley,.,.,Meath,Ireland	
Within the Country	20 03 01	No	561.08	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Drehid Landfill,W0201-03	Carbury,.,.,Kildare,Ireland	
Within the Country	20 01 01	No	69.82	paper and cardboard	R13	M	Weighed	Offsite in Ireland	Bailey Waste Recycling,WFP-FG-08-0002-01	Rosemount Business Park,.,Ballycooling,Dublin,Ireland	

Within the Country	20 01 01	No	276.3	paper and cardboard	R13	M	Weighed	Offsite in Ireland	Irish Paper Recycling Ltd,W0263-01	Ballymount Road,Walkinstown,.,Dublin 12,Ireland
Within the Country	20 01 02	No	10.54	glass	R13	M	Weighed	Offsite in Ireland	Mallow Contracts,CK(No)277/5	.,.,Mourneabbey,Co Cork,Ireland
Within the Country	20 01 39	No	32.02	plastics	R13	M	Weighed	Offsite in Ireland	Leinster Environmental,WFP-LH-09-0004-01	Dundalk,.,.,Louth,Ireland
Within the Country	20 01 40	No	346.1	metals	R4	M	Weighed	Offsite in Ireland	Hegarty Metals,WFP LK 11-0001-01	Limerick,.,.,Co Limerick,Ireland
Within the Country	20 01 40	No	708.29	metals	R4	M	Weighed	Offsite in Ireland	Davis Recycling,WFP-DC-09-0013-01	Ringsend,.,.,Dublin 4,Ireland
Within the Country	20 02 01	No	128.54	biodegradable waste	R13	M	Weighed	Offsite in Ireland	Cremins Farm Compost,WFPLK2009 23A R1	Broadford,.,.,Co Limerick,Ireland
Within the Country	20 03 01	No	24.8	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Greenstar Millennium,w0183-01	Ballycoolin,.,.,Dublin,Ireland
Within the Country	20 03 07	No	25.66	bulky waste	D5	M	Weighed	Offsite in Ireland	North Kerry Landfill,W0001-04	Tralee,.,Co Kerry,.,ireland
Within the Country	20 03 01	No	4793.52	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Gortnaduma Landfill,W0017-03	.,.,.,Co Limerick,Ireland
Within the Country	20 03 01	No	1794.76	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Greenstar Knockharley,W0146-01	Knockharley,.,.,Meath,Ireland
Within the Country	19 09 02	No	349.9	sludges from water clarification	D5	M	Weighed	Offsite in Ireland	Greenstar Connaught Landfill,W0178-01	.,.,Kilconnell,Co Galway,Ireland
Within the Country	20 01 01	No	47.8	paper and cardboard	R13	M	Weighed	Offsite in Ireland	Cellmark USA,TFS Broker IRE/G180/11	.,.,.,.,Ireland
To Other Countries	15 01 01	No	479.9	paper and cardboard packaging	R13	M	Weighed	Abroad	International Recycling (Europe) Ltd,TFS Broker IRE/G050/11	.,.,.,.,United Kingdom
To Other Countries	15 01 02	No	47.1	plastic packaging	R13	M	Weighed	Abroad	J&A Young (Leicester),TFS Broker IRE/G058/11	.,.,.,.,UNITED KINGDOM
Within the Country	20 01 11	No	4.04	textiles	R13	M	Weighed	Offsite in Ireland	Textile Recycling Ltd,Exempt WERS Ltd,WFP-G-09-0002-01	Glen Abbey Complex,Belgard Rd,Tallaght,Dublin 24,Ireland
Within the Country	20 03 01	No	1601.16	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Dillons Waste,WFP-KY-10-001	Tuam,.,.,Galway,Ireland
Within the Country	20 03 01	No	4346.72	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd,WP-008-02	The Kerries,Traless,Co Kerry,.,Ireland
Within the Country	20 03 07	No	97.64	bulky waste	R13	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd,WP-008-02	Lawlesstown,Clonmel,.,Co Tipperary,ireland
Within the Country	20 03 01	No	23.78	mixed municipal waste	D15	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd,WP-008-02	Lawlesstown,Clonmel,.,Co Tipperary,ireland
Within the Country	20 01 38	No	313.28	wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd,WP-008-02	Lawlesstown,Clonmel,.,Co Tipperary,ireland
Within the Country	20 03 01	No	4399.66	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	North Kerry Landfill,W0001-04	Tralee,.,Co Kerry,.,ireland
To Other Countries	20 03 01	No	7041.48	mixed municipal waste	R1	M	Weighed	Abroad	AZN Meorduk,North Barabant 855078	Moerdjk,.,Moerdjk,.,Netherlands
To Other Countries	20 03 01	No	5334.04	mixed municipal waste	R1	M	Weighed	Abroad	EON (BKB),Groningen Nr 2007 13.472/24 MV	Metal Park 25,.,Farsum,Delfzijl,Netherlands
To Other Countries	20 03 01	No	2712.86	mixed municipal waste	R1	M	Weighed	Abroad	EON,M1939-07	Ostra Promenaden,.,Norrkoping,601 71,Sweden
To Other Countries	15 01 01	No	302.08	paper and cardboard packaging	R13	M	Weighed	Abroad	Marl Lyndon Ltd,IRE/G021/12	.,.,.,.,UNITED KINGDOM

Within the Country	17 09 04	No	2591.54	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	Mallow Contracts,CK(No)277/5	.,.,Mourneabbey,Co Cork,Ireland
Within the Country	20 01 02	No	155.96	glass	R13	M	Weighed	Offsite in Ireland	Glassco Recycling Ltd,WFP KE 08 0357 01	.,.,Naas ,Co Kildare,ireland
Within the Country	15 01 07	No	26.68	glass packaging	R13	M	Weighed	Offsite in Ireland	Glassco Recycling Ltd,WFP KE 08 0357 01	.,.,Naas ,Co Kildare,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

APPENDIX 2

Procedures List

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 01, 05/07/10
IP-04	Legal & Regulatory Requirements Procedure	Rev 02, 05/11/10
IP-05	Objectives, Targets & Management Programmes Procedure	Rev 01, 05/07/10
IP-06	Competence, Training & Awareness Procedure	Rev 01, 05/07/10
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

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

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 02, 13/09/10
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

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	Circ List	02	Amendment to document control	M.D & O.C
04.04.11	13	SP-02	03	Inclusion of Site Specific Maintenance schedules	O.C
07.06.11	14	IP-11	02	Inclusion of H&S & Env Internal Audit Schedules	M.D & O.C
14/09/11	15	EP-02	02	Inclusion of decommissioning of plant/equipment	S.B
15/09/11	16	IP-09	02	Inclusion of Statutory Inspections	O.C
01/12/11	17	SP-09	01	Inclusion of new procedure for SCGT	O.C
01/12/11	18	SP-10	01	Inclusion of new procedure for SCGT	O.C
03/05/12	19	SP-01	02	Amendment to remove SF 028	O.C
05/05/12	20	SP-11	01	Inclusion of a new procedure for Greenogue	O.C
28/05/12	21	IP-11	03	General Amendments to internal audit procedure	M.D & O.C
08/06/12	22	IP-13	03	Grammatical amendment	M.D & O.C

Circulation List

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