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ANNUAL ENVIRONMENTAL REPORT

FOR GREENSTAR RECYCLING (MUNSTER) LIMITED.

SARSFIELDCOURT, CORK

LICENCE NO. W0136-02

JANUARY 2012 – DECEMBER 2012

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1. INTRODUCTION

This is the 2012 Annual Environmental Report (AER) for Greenstar Recycling (Munster) Limited's (Greenstar) Materials Recovery Facility (MRF) located at Sarsfield Court Industrial Estate, Glanmire, County Cork.

The report covers the period from the 1st January 2012 to the 31st December 2012. The content of the AER is based on Schedule H of the Waste Licence (W0136-02) and the report format follows guidelines set in the "Guidance Note for Annual Environmental Report" issued by the Environmental Protection Agency (Agency)[1]. Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013[2].

[1] EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency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 situated within the Sarsfieldcourt Industrial Estate, approximately 8 km northeast of Cork City and 5 km north of Glanmire in the townland of Sarsfieldcourt. The site occupies 1.56 ha and comprises one MRF building and ancillary infrastructure, including administration offices, yard and parking areas and a vehicle wash.

2.2 Waste Management Activities

The licence allows Greenstar to accept and process 99,017 tonnes of waste per annum, comprising commercial/industrial non-hazardous waste, household waste, source separated biodegradable waste for composting and construction and demolition wastes. All waste processing takes place inside the waste transfer building, as specified in Condition 5.1 of the licence.

2.2.1 Waste Types & Processes

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

- Household (42,129 tonnes)
- Commercial & Industrial (47,130 tonnes)
- Construction & Demolition (4,758 tonnes)
- Source separated biodegradable waste for composting (5,000 tonnes), however composting is not currently carried out.

The maximum tonnage of each waste type accepted, except the source separated biodegradable waste for composting, 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 (wood, metals, glass);
- Segregation and bulking of C&D waste;
- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets;
- Separation of organic fines from MSW waste by shredding and trommelling of the waste;
- Bulking of material for transfer to appropriately licensed recycling, recovery and disposal outlets.
- Production, baling and storage of RDF

Household Waste

Mixed household waste as delivered is processed to remove bulky items, food waste, metal and wood. The remaining material is baled and wrapped to produce RDF. .All recyclable material is segregated, where possible, from the waste and transferred off-site to suitable licensed or permitted recycling facilities. The remaining non-recyclable and residual material not suitable for RDF production is sent to licensed landfills post processing

Commercial and Industrial Waste

Greenstar provides skips of various sizes to a wide range of commercial and industrial premises in the Cork Region. Recyclable material is segregated, where possible, from the waste stream and transferred to suitable recycling facilities. The remaining non-recyclable and residual material is sent to licensed landfills or re-directed to the onsite baler for the production of RDF bales of waste material for export to approved recovery facilities.

In addition Greenstar provides a source segregation service for those clients which generate large quantities of commercial and industrial waste. Trained Greenstar staff sort and segregate waste at source and the waste is then collected in skips or bulker vehicles and appropriately transported. All material is transported to the Sarsfieldcourt facility and off-loaded in designated areas and stored pending consignment to recycling facilities or to a licensed landfill.

Construction and Demolition Waste

Construction and demolition material arrives on-site in skips of varying sizes. The loads are inspected and segregated on-site. Recoverable materials are extracted and sent

off-site either for re-use or recycling. The non-recyclable materials are transferred to a licensed landfill.

Biodegradable waste for composting

The facility is allowed to compost up to 5,000 tonnes/year of source separated biodegradable waste for composting. However, Greenstar has not yet started composting. Biodegradable wastes suitable for composting which is accepted at the facility are sent to an offsite composting facility.

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 Existing Plant

No.	Plant	Model	Operational Capacity	Standby Capacity
1	Tromel	Waltec	80 t/hr	0
10	Conveyor Lines	Generic	80 t/hr	0
1	Baler	Bollegraff	12 t/hr	0
1	Articulated Grab	Liebherr L924	100 t/hr	100 t/hr
1	Loading Shovel	Volvo L120	70 t/hr	0
1	Wheel Wash	Eurojet	168 hr/wk	0
1	Picking Line	7-bay sorting line	Not in Use	N/A
1	Weighbridge – 2 Scales	-	56 hr/wk	56 hr/wk
1	Fork Lift	Jungheinrich 3.0 tonnes	60 hr/wk	60 hr/wk
2	Fork Lift	Jungheinrich 2.5 tonnes	60 hr/wk	60 hr/wk
1	Fork Lift	Jungheinrich 3.5 tonnes	60 hr/wk	60 hr/wk
1	Shredder/Bag Opener	M&J 2000	80 t/hr	0
1	Bale wrapper	Crosswrap	12 t/hr	0
1	Articulated Grab	Fuchs ML340	100 t/hr	100 t/hr

3. EMISSION MONITORING

Greenstar implements the comprehensive environmental monitoring programme as specified in the licence to assess the significance of emissions from site activities. The programme includes surface water, wastewater, groundwater, noise and dust monitoring. The monitoring locations are shown on Figure 3.1.

The monitoring results are submitted in reports to the Agency at quarterly intervals. An overview of the results of the monitoring is presented in this Section, with summary data in tables included.

3.1 Surface Water Monitoring

Surface water monitoring was carried out quarterly at three locations (SW-1, SW-2 and SW-3). The Agency collected an additional sample at SW-3 in February 2012. SW-3 is the discharge point from the facility to a stream approximately 100 metres from the eastern boundary of the site. SW-2 is located to the north and upstream of the discharge point and SW-1 is located to the south and downstream of the outfall.

The range of analysis includes pH, electrical conductivity, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), total organic carbon (TOC), ammoniacal nitrogen, dissolved oxygen, total suspended solids (TSS), mineral oils and oils, fats and greases. The Agency sampled the same range of parameters except for oils, fats and greases, nitrate, nitrite and coliforms. The results are presented in Tables 3.1 to 3.3.

The Emission Limit Value (ELV) and Trigger Levels apply solely to the discharge from the facility (SW-3). Both the quarterly and Agency monitoring were 100% compliant with the ELVs and Trigger Levels. The quality of the water in the stream is generally good and is not being impacted by facility activities.

The Agency carried out surface water monitoring in September 2006 and in a letter dated the 8th January 2007 (ref W0136-02/GC06SMcD) requested Greenstar to include nitrate and nitrite in the parameters measured. Total and faecal coliforms were added to the monitoring programme in Q3 2009, also at the Agency's request. The nitrate levels measured in SW-3 in all monitoring events in 2012 were low and were below those detected by the Agency in 2006. Total and faecal coliforms were detected in the stream and at SW-3 on all monitoring occasions. The results indicate that the discharge is not having a significant effect on water quality in the receiving stream.

Table 3.1 Surface water Monitoring Results 2012: SW-1

Parameter	Units	Q1	Q2	Q3	Q4
pH	pH units	7.99	8.16	7.09	8.24
Conductivity	mS/cm	0.270	0.187	0.144	0.269
Temperature	°C	10.8	13.5	13.6	7.4
BOD	mg/l	<1	2	<1	10
COD	mg/l	8	36	<7	12
Ammoniacal Nitrogen	mg/l	0.03	0.13	0.28	0.02
Dissolved Oxygen	mg/l	11	10	11	11
TOC	mg/l	3	15	5	6
TSS	mg/l	<10	28	<10	<10
Oils, Fats & Greases	mg/l	<0.01	<0.01	<0.01	<0.01
Nitrate as NO_3	mg/l	18.9	10.6	13.2	25.8
Nitrite as NO_2	mg/l	<0.02	<0.02	<0.02	<0.02
Mineral Oils	mg/l	<0.01	<0.01	<0.01	<0.01
Total Coliforms	cfu/100ml	2400	46,000	11,000	150
Faecal Coliforms	cfu/100ml	460	46,000	4,600	150

Table 3.2 Surface water Monitoring Results 2012: SW-2

Parameter	Units	Q1	Q2	Q3	Q4
pH	pH units	7.98	8.55	6.72	8.18
Conductivity	mS/cm	0.261	0.334	0.265	0.270
Temperature	°C	10.7	13.1	13.2	7.4
BOD	mg/l	<1	<1	<1	<1
COD	mg/l	7	15	<7	10
Ammoniacal Nitrogen	mg/l	<0.03	0.42	<0.03	0.02
Dissolved Oxygen	mg/l	11	9	10	11
TOC	mg/l	3	6	5	5
TSS	mg/l	<10	12	<10	<10
Oils, Fats & Greases	mg/l	<0.01	<0.01	<0.01	<0.01
Nitrate as NO_3	mg/l	17.0	7.2	20.0	24.2
Nitrite as NO_2	mg/l	<0.02	0.06	<0.02	<0.02
Mineral Oils	mg/l	<0.01	<0.01	<0.01	<0.01
Total Coliforms	cfu/100ml	150	4,600	1,100	93
Faecal Coliforms	cfu/100ml	43	4,600	1,100	43

Table 3.3 Surface water Monitoring Results 2012: SW-3

Parameter	Units	Q1	Q2	Q3	Q4	Agency Results Q-1 2012	Trigger Levels	Emission Limit
pH	pH units	8.23	8.37	8.24	8.50	6.8	N/A	N/A
Conductivity	mS/cm	0.434	0.249	0.395	0.459	0.495	N/A	N/A
Temperature	°C	10.8	13.8	14.1	7.8	8.2	N/A	N/A
BOD	mg/l	<1	1	<1	<1	13	25	N/A
COD	mg/l	9	8	9	8	50	N/A	N/A
Ammoniacal Nitrogen	mg/l	0.22	0.51	0.33	0.30	0.16	N/A	N/A
Dissolved Oxygen	mg/l	9	8	5	5	5.2	N/A	N/A
TOC	mg/l	2	4	7	4	8.7	N/A	N/A
TSS	mg/l	<10	27	<10	<10	<40	35	N/A
Oils, Fats & Greases	mg/l	<0.01	<0.01	<0.01	<0.01	-	N/A	N/A
Nitrate as NO_3	mg/l	7.1	6.7	16.8	12.9	-	N/A	N/A
Nitrite as NO_2	mg/l	0.2	<0.02	0.32	0.25	-	N/A	N/A
Mineral Oils	mg/l	<0.01	<0.01	<0.01	<0.01	1.31	N/A	5
Total Coliforms	cfu/100ml	24,000	460,000	46,000	43,000	-	N/A	N/A
Faecal Coliforms	cfu/100ml	4,600	460,000	11,000	43,000	-	N/A	N/A

3.2 Groundwater Monitoring

There are two groundwater monitoring wells located up and down gradient of site activities. The licence specifies annual groundwater monitoring however, the Agency requested Greenstar to increase the monitoring frequency to biannually in a letter dated the 8th January 2007 (ref W0136-02/GC06SMcD). As with the surface water monitoring, the Agency requested that nitrite and nitrate be included in the list of parameters to be analysed for in the groundwater samples. Groundwater monitoring was carried out biannually at two locations (W-1 and W-2) in Q2 and Q4 2012. The Agency collected additional samples at W-1 and W-2 in February 2012. The direction of groundwater flow is considered to be from west to east towards the stream, which flows along the eastern side of the Industrial Estate. W-2 is at the upgradient and W-1 is at the downgradient side of the site.

The range of analysis included TOC, pH, electrical conductivity, ammoniacal nitrogen, total suspended solids and mineral oils, plus the additional parameters requested by the Agency. The Agency sampled for the same suite of parameters specified in the licence but did not sample for the additional nitrate or nitrate. There are no Emission Limit Value (ELV) nor Trigger Levels. The tables also include the EPA Interim Guideline Values (IGVs) which

were published in May 2003. The IGVs are not statutory guidelines but have been prepared by the EPA to assist in the assessment of impacts on groundwater quality in the context of the implementation of the Water Framework Directive. The Table also includes the Groundwater Regulations Threshold Value (GTV) which were introduced in 2010 (S.I. 9 of 2010) on foot of requirements from the Water Framework Directive and have evolved from the IGVs. The results are included on Tables 3.4 and 3.5.

The quality of the groundwater was good and generally consistent with the previous monitoring carried out. With the exception of pH being just below the IGV range and ammonia in W-2 in the Agency round of monitoring, the results were all below the relevant IGV and GTV levels. The results indicate that the facility is having no impact on groundwater. W-2 is upgradient of the facility and the elevated levels of ammonia are likely related to upgradient off site agricultural practices.

Table 3.4 Groundwater Monitoring Results 2012: W-1

Parameter	Units	Agency Results Q-1 2012	Q2	Q4	IGV	GTV
pH	pH units	6.4	7.30	8.20	6.5-9.5	-
Conductivity	mS/cm	0.256	0.305	0.313	1	0.800-1.875
Temperature	°C	9	12.7	9.8	-	-
TOC	mg/l	27	5	21	NAC	-
Ammoniacal Nitrogen	mg/l	0.09	0.08	0.03	0.12	0.065-0.175
TSS	mg/l	1,266	424	267	N/A	-
Nitrate as NO_3	mg/l	-	12.1	12.5	25	37.5
Nitrite as NO_2	mg/l	-	<0.02	<0.02	0.1	0.375
Mineral Oils	mg/l	<0.01	<0.01	<0.01	0.01	-

Table 3.5 Groundwater Monitoring Results 2012: W-2

Parameter	Units	Agency Results Q-1 2012	Q2	Q4	IGV	GTV
pH	pH units	6.45	7.07	8.44	6.5-9.5	-
Conductivity	mS/cm	0.196	0.197	0.547	1	0.800-1.875
Temperature	°C	9	12.5	9.9	-	-
TOC	mg/l	46	5	31	NAC	-
Ammoniacal Nitrogen	mg/l	2.3	0.06	0.02	0.12	0.065-0.175
TSS	mg/l	6,396	1303	95	N/A	-
Nitrate as NO_3	mg/l	-	11.9	11.6	25	37.5
Nitrite as NO_2	mg/l	-	<0.02	<0.02	0.1	0.375
Mineral Oils	mg/l	<0.01	<0.01	<0.01	0.01	-

3.3 Wastewater Monitoring

Wastewater generated on site is directed to a holding tank located to the east of the site security hut weighbridge building. The accumulated liquid is removed off-site as required to an appropriate wastewater facility for treatment. The volume of wastewater removed in 2012 was 1851.18 tonnes and is shown on Table 5.1 (under EWC code 19 08 05).

Wastewater monitoring was undertaken biannually. The range of analysis was as specified in Schedule D of the Waste Licence and included pH, BOD, COD, ammoniacal nitrogen, total suspended solids and mineral oils. There are no ELV or Trigger levels set for wastewater. The results indicate that the wastewater is suitable for treatment at the off-site wastewater treatment plant. The results are included on Table 3.6.

Table 3.6 Wastewater Monitoring Results 2012

Parameter	Units	Q1	Q3
Temperature	°C	7.58	7.68
pH	pH units	1.419	1.374
Conductivity	mS/cm	559	316
BOD	mg/l	940	978
COD	mg/l	27.33	34.32
Ammoniacal Nitrogen	mg/l	307	8876
TSS	mg/l	1.26	808
Mineral Oils	mg/l	7.58	7.68

3.4 Noise Survey

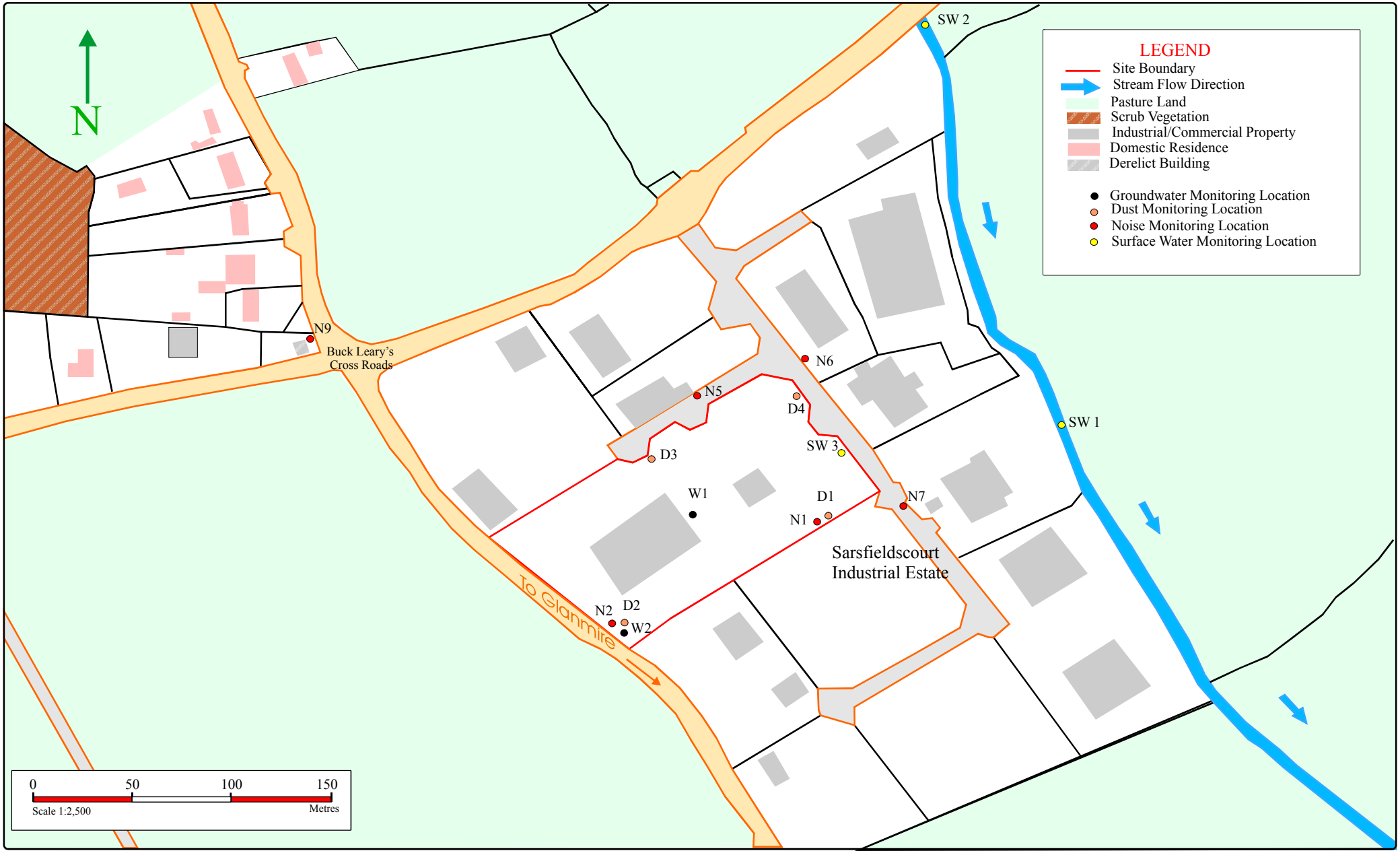
A noise survey is carried out annually at the facility. This was conducted in May 2012. Monitoring was carried out at five noise monitoring locations, N-1, N-2, N-5, N-6 and N-7 specified in the licence and one off-site noise sensitive location N-9. The survey concluded that the facility was fully compliant with its licence requirements. The results are included on Table 3.7.

The licence specifies a daytime noise emission limit of 55 dB at all monitoring locations. Most waste licences however currently issued by the Agency state that specified noise limits should apply to noise sensitive locations only. Given that the Greenstar facility is located in a busy industrial estate, it is considered practical to adopt this approach. Therefore the noise limits of 55 dB daytime and 45 dB night-time limits have been applied to the offsite noise sensitive location N9. Noise emissions from the nearest industrial premises contributed to the noise environment at N9, however no emissions were audible from the Greenstar facility.

Table 3.7 Noise Monitoring Results 2012

Station	Time	LAeq 30 min dB	LAF10 30 min dB	LAF90 30 min dB	Specific level* dB	Noise audible
N1	1212-1242	69	73	53	68	Intermittent truck movements through site entrance dominant when present. Truck movements around site and AHS blow-down also audible. Intermittent truck movements on industrial estate roadway significant. Emissions audible from several nearby commercial premises. No other noise audible.
N2	1246-1316	61	64	56	61	Continuous emissions from Greenstar genset and compressor codominant with bin power washing in progress nearby. No other noise audible.
N5	1433-1503	59	57	47	48	Greenstar AHS continuous hum and intermittent blow-down audible at low level. Trucks on E yard area also audible. No other site emissions audible. Noise from activities at surrounding premises audible, and intermittent vehicle movements on industrial estate roadway. Sporadic vehicle movements on local roadway dominant when present. Birdsong and aircraft.
N6	1400-1430	63	63	48	48-50	Truck movements through entrance, on E yard area, and AHS hum and blow-down audible, although not significant. Intermittent industrial estate traffic noise dominant when present. Noise emissions audible from various sources/activities at surrounding commercial premises. Birdsong and road traffic audible.
N7	1325-1355	65	65	49	49-50	Truck movements through site entrance and on yard areas audible. No other site emissions audible apart from intermittent AHS blow-down. Noise audible from several surrounding commercial premises, including continuous emissions from adjacent facility. Intermittent vehicle movements on industrial estate roadway dominant when present, particularly trucks.
N9	1507-1537	70	72	44	<44	Greenstar emissions not specifically discernible in general commercial noise audible from industrial estate. Occasional emissions from nearest commercial premises more clearly audible. Frequent road traffic through local junction dominant. Birdsong audible during traffic lulls. Dog barking audible at nearby house. Strimmer at house at approx 80 m significant intrusion from 1527.

*Specific level: Sound pressure level contribution considered attributable to facility, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, near field correction if applicable, and other parameters.



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CLIENT
Greenstar Ltd

TITLE
Sarsfieldscourt
Monitoring Locations

Details

FIGURE NUMBER
3.1

Scale
Not To Scale

Revision
A

3.5 Dust Monitoring

The facility conducts dust monitoring on three occasions annually. Due to an oversight the gauges were not submitted to the laboratory for analysis in May/June. Additional gauges were erected in January 2013 and are reported here. The monitoring was undertaken during August/September, November/December and February/March 2013 at four on-site locations (D-1, D-2, D-3 and D-4). The results are included in Table 3.8.

There were no exceedances of the dust deposition limit (350 mg/m^2/day) set in the Licence at any of the monitoring locations during any of the monitoring events in 2012.

Table 3.8 Dust Monitoring Results 2012

	August/September **mg/m^2/day**	November/December **mg/m^2/day**	February/March (2013) **mg/m^2/day**	**Deposition Limit mg/m^2/day**
D-1	29.6	-	17.2	350
D-2	19.7	10.1	-	350
D-3	10.8	11.8	5.9	350
D-4	29.5	11.7	13.2	350

- Gauge Damaged

3.6 Nuisance Control Review

Greenstar installed and commissioned an air emission abatement system in the MRF building in 2006. The system is designed to control dust and odour emissions from within the MRF building. In 2007 two deep bed carbon filters were removed and replaced with two 45,000 m^3/hr annular vessels. This eliminates any possibility of carbon shifting and bed fluidisation.

This odour control system has been custom designed to treat the air volumes in the waste handling area. The system treats approximately 90000 cubic meters of odorous air every hour and has sufficient capacity to deal with the air volumes contained within the processing shed.

The system as designed extracts air from the waste handling area and passes it through a series of filters to remove any dust. The active carbon within the annular vessels acts on the odorous air by binding the odour causing molecules to the carbon thus removing odours from the released air. This technique in conjunction with maintaining the integrity of the extraction area forms the premise for the effective operation of the system and ensures treatment.

The carbon serving the odour abatement system filters is replaced at regular intervals (minimum every 6 months but typically 10 months) and the filters are changed approximately every 12 months. In 2012 carbon replacement occurred on the 11th of February and the 23rd November.

Other controls include automatic fast acting doors installed on both the tunnel entrance and exit and the in and out doorway in the main transfer building. This act in conjunction with a building management system (BMS) which activates an alarm if a door is opened for longer than a pre defined period.

In order to assess the integrity of the main building a smoke integrity test was performed in March 2012. This was attended by the Agency. The integrity of the building was good and the amount of leakage was minimal. Any minor defects were subsequently sealed.

Odour patrols are carried out on the site three times a day at altering times to assess if any odours are detected. The abatement system is tested in house three times each week to ensure that it is working within all specified parameters to ensure adequate treatment. In addition to in house testing the abatement system is tested thoroughly on an annual basis by an external independent third party expert to ensure that it is working correctly.

Greenstar has implemented a detailed Odour Management Plan (OMP) for waste handling operations and this was updated in May 2012. The OMP is a core document detailing operational and control measures appropriate to management and control of odours. It provides sufficient detail to allow facility and maintenance staff to clearly understand the odour management operational procedures for both normal and abnormal conditions.

Routine inspections and litter patrols, cleaning of site roads and yard areas and vermin control (Quality Pest) are maintained.

Greenstar has introduced an Integrated Management System (IMS) and as part of this has developed a list of environmental management procedures, details of which are outlined in Section 7 and include nuisance control measures.

4. SITE DEVELOPMENT WORKS

4.1 Engineering Works

Table 4.1 show the development works carried out in 2012. There are no proposed works planned for 2013.

Table 4.1 Site Infrastructural Works Carried Out in 2012

Description of Works	Scheduled Date of Completion	Completion Date
Upgrade to ESB substation	Q4 2012	Ongoing. Planning permission granted
Set up of Civic Amenity Site	Q4 2012	Ongoing pending licence review
Installation of a C&D holding bay	Q1 2012	Q1 2012
Installation of Hoffman baler	Q1 2012	Q1 2012
Installation of Bolgraff baler	Q2 2012	Q3 2012
Installation of bale wrapper	Q2 2012	Q3 2012

As per condition 3.13.3 of the licence, Integrity testing of all drainage systems (process, foul and surface) was conducted on site in April 2012. During the testing it was noted that there was the following issues:

- Surface Water Line – defect noted at SWMH07
- Process Line – defect noted at PMH04
- Foul Line – defect noted at FWMHA

Subsequent repair work was carried out in Dec 2012 and all of the defects were repaired at point of defect with localised lining. Defect points were resurveyed in Jan 2013 and found to be fit for function.

Summary of Resource & Energy Consumption

Table 4.3 presents an estimate of the resources used on-site during the reporting period.

Table 4.3 Estimates of Resources Used On-Site in 2012

Resources	Quantities 2011	Quantities 2012
Road Diesel	707,000 litres	789,360 litres
Gas Oil	147,157 litres	201,500 litres
Gear Oil	20 litres	30 litres
Ad Blue	5,000 litres	5,200 litres
Hydraulic, Transmission, Engine Oil	2,825 litres	3,600 litres
Anti Freeze	120 litres	80 litres
Electricity	185,000 units	196,000 litres
Truck Wash Detergent	105 litres	100 litres
Carbon	27,000 kg	27,000 kg

4.2 Bund Integrity Test

Bund testing is carried out every three years. The bunds and tanks were tested in June 2012 (Chemstore Unit in Quarantine Area) and September 2012 (underground foul water and process water storage tanks). Completion of bund testing of the covered diesel oil storage tank was completed in February 2013. All bunds were passed fit for function.

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. For comparative purposes the amounts of waste received and consigned in 2010 are presented in Table 5.2. 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 (EWC/HWL) list. A more detailed description of the wastes accepted and consigned are provided in the PRTR submission in Appendix 1.

The total amount received in 2012 was 75,425.402 tonnes. The total amount consigned was 74,036.883 tonnes. The difference consists of waste which remained on site at the end of 2012 and was consigned in 2013, 1,850.50 tonnes of liquid waste and 28 tonnes of activated carbon which were generated onsite in 2012. All the wastes consigned from the site went to recovery and disposal facilities agreed with the Agency.

Greenstar applied for a Waste Licence Review in July 2010 however a proposed decision has not yet been issued by the Agency. The intention of this review is to extend the waste acceptance and operational hours to allow for 24 hour waste acceptance and operation, for the operation of a Civic Amenity Centre and to increase the waste acceptance limits pro-rata from 99,017 to 200,000 tonnes per annum. The waste types will remain the same as the current licence (household, construction & demolition, commercial and industrial and biodegradable non-hazardous wastes). In addition Greenstar have sought to remove the existing requirement to achieve a 50% recovery rate and to revise the compliance locations for noise emission limits from the site boundary to the nearest noise sensitive locations as is best practice. The recycling rate has reduced in recent years due to the increase in mixed municipal waste (MSW) accepted at the facility and the reduction in recyclables which are diverted to the adjacent specialised facility Glyntown Enterprises Ltd. Sarsfieldcourt Industrial Estate, Glanmire.

With the commencement of RDF production on site in August 2012 the amount of material being consigned to landfill for disposal will be significantly reduced. As RDF is deemed recovery when consigned to an EPA approved class 1 incinerator, the recovery percentage will increase from the current figure of 26% recovery to 45% in 2013.

Table 5.1 Waste Received & Consigned 2012

EWC	Description	Waste In	Waste Out
01 03 08	Dust	29.54	
06 13 03	Activated Carbon		28.06
10 01 01	Ash	12.2	
12 01 13	Solder Dross	9.17	
15 01 01	Cardboard & Paper Packaging	142.32	202.14
15 01 02	Plastic Packaging	41.737	4.6
15 01 03	Wooden Packaging	286.535	84.04
15 01 04	Aluminium and Metal	4.004	
15 01 06	Mixed Packaging	194	
15 01 07	Glass Packaging	1,661.247	2,054.18
15 02 03	Solder Tubes and Wipes	0.5	
16 02 14	WEEE	0.05	
16 06 01	Battery Lead Acid		4.222
17 04 11	Cable	9.74	
17 09 04	Mixed C&D	1,428.42	1,238.67
19 08 05	Liquid Waste		1,851.18
19 09 05	Resin	8.12	
19 12 04	Rubber	1.96	
19 12 10	Solid Recovered Fuel	19	
19 12 12	Mixed Residual Waste from mechanical treatment	5.1	12,229.14
20 01 01	Paper & Cardboard	177.454	232.82
20 01 02	Glass	665.34	45.36
20 01 08	Compost and Commercial Food Wastes	2767.694	2373.56
20 01 11	Textiles	2.5	0.64
20 01 35	WEEE	43.338	76.691
20 01 36	WEEE	126.593	
20 01 38	Wood from municipal sources	166.7	144.28
20 01 39	Plastic from municipal sources	225.699	
20 01 40	Metal from municipal sources	60.138	323.82
20 02 01	Glass and Green Waste from municipal sources	17.92	
20 03 01	Mixed Residual Waste	50,671.262	50,383.44
20 03 07	Bulky Waste	16,841.121	2,758.62
	Total Received	75,619	
	Total Consigned		74,035
	Recovered		34038
	Disposed		39996
	Recovery Rate		46%

Table 5.2 Waste Received & Consigned 2011

EWC	Description	Waste In	Waste Out
01 03 08	Dust	19	
10 01 01	C&D Inert Mixed	4	
12 01 13	Solder Dross	19	
15 01 01	Cardboard & Paper Packaging	41	
15 01 02	Plastic Packaging	310	
15 01 03	Wooden Packaging		342
15 01 06	Mixed Packaging	194	
15 01 07	Glass Packaging	1,969	1966
15 02 03	Solder Tubes	1	
16 02 14	WEEE	1	
16 11 06	Kiln Ash	18	
17 09 04	Mixed C&D	757	58
19 08 05	Liquid Waste		1332.5
19 12 09	C&I Fines		18
19 12 12	Mixed Residual Waste from mechanical treatment		60,288
20 01 01	Paper & Cardboard	69	
20 01 02	Glass	374	60
20 01 08	Commercial Food Wastes	886	777
20 01 11	Textiles	1	
20 01 35*	WEEE	40	90
20 01 36	WEEE	129	
20 01 38	Wood from municipal sources	75	45
20 01 39	Plastic from municipal sources	69	
20 01 40	Metal from municipal sources	28	169
20 03 01	Mixed Residual Waste – green bin	1,131	
20 03 01	Mixed Residual Waste – black bin	50,836	
20 03 07	Bulky Waste	10,650	4,676
	Total Received	67,621	
	Total Consigned		69,848
	Recovered		27,263
	Disposed		42,585
	Recovery Rate		39%

Table 5.3 Waste Received & Consigned

	2010	2009	2008	2007	2006	2005
Total Received	68,252.30	54,697.49	61,288.71	88,009.32	68,962.92	67,272.68
Total Consigned	69,987.57	46,393.84	61,879.66	89,229.89	68,664.82	66,486.44
Total Recovered	31,806.90	15,521.44	21,254.99	23,797.77	29,861.54	26,719.68
Total Disposed	38,180.67	40,872.40	40,721.72	65,432.12	38,803.28	39,766.76
Recovery Rate	45.45%	27.52%	34.29%	26.67%	44%	40%

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There were no incidents during the reporting period.

6.2 Register of Complaints

Greenstar maintains a register of complaints received in accordance with Condition 10.4 of the waste licence. The complaints register includes the details of all complaints and the actions carried out in response to each complaint. No complaints were received directly by the facility during the reporting period. The Agency received a complaint on 5th September 2012 on foot of which an inspection occurred. An observation was raised and this was closed out as detailed in correspondence to the Agency dated 12th September 2012. Greenstar was not held to be the source of this complaint.

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 account 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.

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

Details of the site management structure are given below.

Name: Louise Demir

Responsibility: Operations Manager.

Experience: 6 years waste management experience. BSc. Biochemistry (UCC). FÁS Waste Management Course.

Name: Michael Hannon

Responsibility: Support Service Manager / Deputy Operations Manager.

Experience: 12 years waste management experience. FÁS Waste Management Course.

7.1.2 Staff Training

Staff training carried out during the year included operational training. Environmental management system and environmental awareness training was carried out in 2010 and is included on the facility training matrix for 2013. Environmental training is carried out for any new staff employed at the facility as required.

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

Forklift training, 360 Articulated Grab, MEWP, Front Loader, Manual Handling and Lock out Tag Out training was undertaken on 2012. Further training is scheduled on the facility training matrix for 2013.

Objective 2 – Energy & Resource Consumption

Facility management continually assess the resource consumption at the facility.

Objective 3 – Review and Assess the effectiveness of Nuisance Control Procedures

All procedures were reviewed as part of the Integrated Management System. The facility did not create a nuisance in 2012.

Objective 4 – Pollution Prevention

The environmental monitoring programme has shown that the facility is not causing pollution in the local environment.

Objective 5 - Infrastructure

A civic amenity site was scheduled to be set up in 2011. The civic amenity is however subject to a Waste Licence Review which is currently with the Agency.

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 7.3.

7.3 Communications Programme

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

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 at 1890 600 900.

The facility manager meets with any interested other occupants of the Industrial Estate and the representatives of the Glanmire Residence Association to discuss the environmental performance of the facility and address any environmental issues or concerns that may arise.

Table 7.2 Schedule of Objective and Targets 2012

No	2012 Objective	Target	Responsibility	Update
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
		Review and implement findings of Energy Audit		
		Upgrade on site generator to ESB substation		
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
		Complete MRF sealing project and associated smoke testing to assess integrity of MRF building		
		Upgrade BMS system to include monitoring of fast acting vehicle doors and pedestrian doors in the MRF.		
4	**Pollution Prevention**	Strive to ensure that monitoring results comply with the licence limits and investigate any exceedances of emission limit values.	Site Management	Ongoing
		Continue to ensure the integrity and maintenance of all drainage infrastructure.		
5	**Infrastructure**	Set up and operation of a Civic Amenity Site	Site Management	Ongoing pending licence review

Table 7.3 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	Ongoing
2	**Energy & Resource Consumption**	Summarise energy and resource usage on a quarterly basis with a view to reducing consumption	Site Management	Ongoing
		Review and implement findings of Energy Audit	Site Management	Q2 2013
		Upgrade on site generator to ESB substation	Site Management	Q2-Q3
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 monitoring results comply with the licence limits and investigate any exceedances of emission limit values.	Site Management	Ongoing
5	**Infrastructure**	Set up and operation of a Civic Amenity Site	Site Management	Subject to Licence Review

6	**Surface Water Drainage Assessment**	To resolve ongoing elevated levels of coliforms within surface water drainage system.	Site Management	Ongoing
7	**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

7.4 Report Financial Provision

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

Greenstar submitted a Environmental Liability Risk Assessment to the Agency in September 2011. The plan addresses the known liabilities at the facility including site closure. Subject to the agreement of the Agency, Greenstar has financially provided for decommissioning in its accounts to ensure necessary clean closure of the facility.

7.5 Nuisance Controls

Greenstar has contracted a vermin control company Quality Pest to carry out nuisance control at the facility.

7.6 European Pollutant Release and Transfer Register

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.

8. OTHER REPORTS

The following reports were submitted to the Agency in 2012.

- A revised odour management plan was submitted in May 2012.
- A smoke integrity test report was submitted in April 2012.
- An external report on performance of odour control systems (Annual Verification Testing) was submitted in April 2012.
- An assessment of the surface water drainage system was submitted in March

APPENDIX 1

European Pollutant Release and Transfer Register

| PRTR# : W0136 | Facility Name : Greenstar Recycling (Munster) Limited | Filename : W0136_2012 REVA.xls | Return Year : 2012 |

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.16

REFERENCE YEAR	2012

1. FACILITY IDENTIFICATION

Parent Company Name	Greenstar Recycling (Munster) Limited
Facility Name	Greenstar Recycling (Munster) Limited
PRTR Identification Number	W0136
Licence Number	W0136-02

Waste or IPPC Classes of Activity

No.	class_name
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
3.11	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
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.
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
Address 1	Sarsfieldcourt Industrial Estate
Address 2	Sarsfieldcourt
Address 3	Glanmire
Address 4	Cork
	Cork
Country	Ireland
Coordinates of Location	-8.40596 51.9631
River Basin District	IESW
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Malcolm Dowling
AER Returns Contact Email Address	malcolm.dowling@greenstar.ie
AER Returns Contact Position	Environmental Executive
AER Returns Contact Telephone Number	01-2947949
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	01-2947900
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	10
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

Is it applicable?	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) ?	

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 Recycling (Munster) Limited

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

4.2 RELEASES TO WATERS

Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

SECTION A : PRTR POLLUTANTS

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

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

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

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					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)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	06 13 99	No	28.06	wastes not otherwise specified	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0146-02	Knockharley,Navan,Co. Meath,.,Ireland		
Within the Country	15 01 01	No	202.14	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Glyntown Enterprises (Greenstar Ltd), WFP-CK-10-0047-02	Sarsfield Court ,.,Glanmire,Co Cork,Ireland		
Within the Country	15 01 02	No	3.8	plastic packaging	R3	M	Weighed	Offsite in Ireland	Glyntown Enterprises (Greenstar Ltd), WFP-CK-10-0047-02	Sarsfield Court ,.,Glanmire,Co Cork,Ireland		
Within the Country	15 01 02	No	0.8	plastic packaging	R13	M	Weighed	Offsite in Ireland	Green Dragon Recycling Ltd , WFP-CK-10-0060-02	Caherlag ,Glanmire ,Co. Cork,-,ireland		
Within the Country	15 01 03	No	84.04	wooden packaging	R3	M	Weighed	Offsite in Ireland	Glyntown Enterprises (Greenstar Ltd), WFP-CK-10-0047-02	Sarsfield Court ,.,Glanmire,Co Cork,Ireland		
Within the Country	15 01 07	No	2054.18	glass packaging	R3	M	Weighed	Offsite in Ireland	Glassco Recycling,WFP-KE-08-0357-01	Unit 4 Osberstown Business Pk ,Carragh Road ,Naas ,Co. Kildare ,ireland		
Within the Country	16 06 01	Yes	4.222	lead batteries	R4	M	Weighed	Offsite in Ireland	KMK Metals, W0113-03,.,.,Tullamore,Co Offaly,Ireland	.,.,Tullamore,Co Offaly,Ireland	KMK Metals, W0113-03,.,.,Tullamore,Co Offaly,Ireland	.,.,Tullamore,Co Offaly,Ireland
Within the Country	17 09 04	No	1238.67	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(N)277/5	.,.,Mournabbey,Co Cork,Ireland		
Within the Country	19 08 05	No	1851.18	sludges from treatment of urban waste water	R13	M	Weighed	Offsite in Ireland	Acorn Recycling Ltd,W0249-01	.,.,Littleton,Co Tipperary,Ireland		
Within the Country	19 12 12	No	2.88	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	Advanced Skip Hire/Wiser,WCP-CK-09-0620-01	Unit 6 Rosehill Commercial Park,Ballinacurra,Midleton,Co Cork,Ireland		
Within the Country	19 12 12	No	22.24	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	Wiser Bins,WCP-CK-10-0738-01	Unit 6 Rosehill Industrial Estate,Ballinacurra,Midleton, Co. Cork,Ireland		
Within the Country	19 12 12	No	12180.84	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	McGill Environmental Services,WFP-CK-09-011-02	Ballinvoher,.,Castletownroche,Co Cork,Ireland		
Within the Country	19 12 12	No	23.18	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0146-02	Knockharley,Navan,Co. Meath,.,Ireland		
Within the Country	20 01 01	No	232.82	paper and cardboard	R13	M	Weighed	Offsite in Ireland	Glyntown Enterprises (Greenstar Ltd), WFP-CK-10-0047-02	Sarsfield Court ,.,Glanmire,Co Cork,Ireland		
Within the Country	20 01 02	No	45.36	glass	R3	M	Weighed	Offsite in Ireland	Glassco Recycling,WFP-KE-08-0357-01	Unit 4 Osberstown Business Pk ,Carragh Road ,Naas ,Co. Kildare ,ireland		
Within the Country	20 01 08	No	2211.3	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Acorn Recycling Ltd,W0249-01	.,.,Littleton,Co Tipperary,Ireland		
Within the Country	20 01 08	No	162.26	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Miltown Composting,W0270-01	Miltownmore,Fethard,.,Co. Tipperary,Ireland		
Within the Country	20 01 11	No	1.86	textiles	R13	M	Weighed	Offsite in Ireland	Tus Geal Teoranta,WCP-CK-09-0713-01	Liscarrigane ,Ballymakeera ,Macroom ,Co. Cork,ireland		

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	20 01 35	Yes	76.691	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and and 20 01 23 containing hazardous components	R4	M	Weighed	Offsite in Ireland	KMK Metals, W0113-03	.,.,Tullamore,Co Offaly,Ireland	KMK Metals, W0113-03,.,.,Tullamore,Co Offaly,Ireland	.,.,Tullamore,Co Offaly,Ireland
Within the Country	20 01 38	No	129.82	wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	Cork Recycling Company Ltd,WFP-CK-09-0022-02	Lehenaghmore,Togher,Cork, .,Ireland		
Within the Country	20 01 38	No	3.3	wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	CTO Environmental Solutions Ltd/ Cork City Council,WFP-CK-09-0018-02	.,.,Rostellan,Co Cork,Ireland		
Within the Country	20 01 38	No	11.16	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 01 40	No	115.62	metals	R4	M	Weighed	Offsite in Ireland	Davis Recycling at Hammond Lane Metal Co Ltd,WFP-CK-10-0077-02	.,.,Ringaskiddy,Co Cork,Ireland	KMK Metals, W0113-03,.,.,Tullamore,Co Offaly,Ireland	.,.,Tullamore,Co Offaly,Ireland
Within the Country	20 01 40	No	196.42	metals	R4	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd,W0183-01	Millennium Park Ltd ,Ballycoolin,Dublin 11,Dublin 11,Ireland		
Within the Country	20 01 40	No	11.78	metals	R4	M	Weighed	Offsite in Ireland	pouladuff dismantlers,WFP-CK-10-0070-02	forge hill ,cork,CORK,cork,ireland		
Within the Country	20 03 01	No	6219.16	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Advanced Skip Hire/Wiser,WCP-CK-09-0620-01	Unit 6 Rosehill Commercial Park,Ballinacurra,Midleton,Co Cork,Ireland		
Within the Country	20 03 01	No	784.38	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Wiser Bins,WCP-CK-10-0738-01	Unit 6 Rosehill Industrial Estate,Ballinacurra,Midleton, Co. Cork,Ireland		
Within the Country	20 03 01	No	1670.36	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfil,W0201-03	.,.,Carbury,Co Kildare,Ireland		
Within the Country	20 03 01	No	17899.53	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Kerry County Council North Kerry Landfill Site,W0001-04	Muingnaminnane,Tralee,Co. Kerry,.,Ireland		
Within the Country	20 03 01	No	53.92	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Killarney Waste Disposal,W217-01	.,.,Killarney,Co.Kerry,Ireland		
Within the Country	20 03 01	No	4964.84	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0146-02	Knockharley,Navan,Co. Meath,.,Ireland		
Within the Country	20 03 01	No	15404.87	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0178-02	East Galway Residual Landfill Site,Killagh More Ballybaun Ballintober,Ballinasloe,Co Galway,Ireland		
Within the Country	**20 03 01**	**No**	289.68	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	MRF Greenstar Bray,W0053-03	.,Fassaroe,Bray ,Co Wicklow ,Ireland		
Within the Country	20 03 01	No	3049.36	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Glyntown Enterprises (Greenstar Ltd), WFP-CK-10-0047-02	Sarsfield Court ,,Glanmire,Co Cork,Ireland		
Within the Country	20 03 01	No	47.34	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	MRF GES Limerick,W0082-02	Dock Road,.,Limerick,.,Ireland		
Within the Country	20 03 07	No	12.64	bulky waste	R13	M	Weighed	Offsite in Ireland	Ashgrove Plant . t/a as Ashgrove Recycling,W0147-01	Churchfield Industrial Estate,Churchfield,Cork,.,Ireland		
Within the Country	20 03 07	No	3.62	bulky waste	R13	M	Weighed	Offsite in Ireland	Advanced Skip Hire/Wiser,WCP-CK-09-0620-01	Unit 6 Rosehill Commercial Park,Ballinacurra,Midleton,Co Cork,Ireland		
Within the Country	20 03 07	No	2742.56	bulky waste	R13	M	Weighed	Offsite in Ireland	Country Clean Ltd,WMP02/07	Churchfield,JF Connoly Rd,Cork,Cork,Ireland		

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

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 02, 07/06/11
IP-12	Management Review Procedure	Rev 01, 05/07/10
IP-13	Control of Contractors/Visitors Procedure	Rev 02, 29/10/10
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 01, 05/07/10
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

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