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environmental management for business

Office of Environmental Enforcement,
Environmental Protection Agency,
McCumiskey House,
Richview,
Clonskeagh,
Dublin 14.

31st March 2010

RE: 2009 Annual Environmental Report – Greenstar Ltd –Tallaght - Reg. No. W0079-01

Dear Sir,

Please find enclosed an original and 2 no. copies of the 2009 Annual Environmental Report (AER) for the above referenced facility. The AER file has been uploaded to the EPA website and is a true copy of the original Annual Environmental Report. The AER/PRTR emissions data reporting workbook has also been uploaded to the EPA website.

Should you have any questions, please call me.

Yours sincerely,

Michael Watson

0904802/MG/JC
Encs.
c.c. Ms. Suzanne Byrne, Greenstar Ltd.,
Ms. Rose Lloyd, MSM Ltd., Tallaght

email. info@ocallaghanmoran.com Website: www.ocallaghanmoran.com

O'Callaghan Moran & Associates. Registration No. 8272844U

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ANNUAL ENVIRONMENTAL REPORT

FOR GREENSTAR LTD

COOKSTOWN INDUSTRIAL ESTATE

TALLAGHT, DUBLIN 24

LICENCE NO. W0079-01

JANUARY 2009 – DECEMBER 2009

Prepared For: -

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

Prepared By: -

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

31st March 2010

Project	Annual Environmental Report 2009			
Client	Greenstar Ltd. W0079-01			
Report No	Date	Status	Prepared By	Reviewed By
0480205	26/03/2010	Draft	Martina Gleeson PhD	Michael Watson MA.
0480205 Rev A	30/03/2010	Draft 2	Martina Gleeson PhD	Michael Watson MA.
0480205 Rev B	31/03/2010	Final Issue	Martina Gleeson PhD	Michael Watson MA.

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1. INTRODUCTION

This is the Annual Environmental Report (AER) for Greenstar Ltd. (Greenstar), waste transfer and recovery facility at Unit 41, Cookstown Industrial Estate, Tallaght, Dublin 24. In November 2008, Greenstar leased the facility to a retail recovery operator, Midland Scrap Metal Ltd (MSM) who began operations at the site in December 2008. Greenstar retains responsibility for complying with the Licence conditions and resumed the environmental monitoring programme in accordance with Licence conditions in December 2008. The AER covers the period from the 1st January 2009 to 31st December 2009.

The content of the AER is based on Schedule C of the Waste Licence. The report format follows guidelines set in the "Guidance Note for Annual Environmental Report" issued by the Agency[1].

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

2. SITE DESCRIPTION

2.1 Waste Management Activities

The facility operates under a waste licence (W0079-01) issued by the Agency in January 2000. This licence allows for the processing of up to 145,000 tonnes per annum of materials comprising commercial and industrial waste (30%) and construction and demolition waste (70%). Following a period of closure, during which a licence surrender process was commenced, the site re-opened in late 2008.

There was a shift in the main processing activity which is now limited to the recovery and processing of ferrous and non ferrous metals. The metals are from a variety of sources, primarily construction and demolition sites, specialist industries that handle metal and existing waste recovery facilities.

Following advice received from the Agency, Greenstar applied for a review of the waste licence to encompass the shift in focus of type of activity at the facility. Whilst formerly the operator (Greenstar) was paid to accept C&I or C&D material at the site, the current operator (MSM) now pays for all material (unprocessed scrap metal) accepted at the site. Following processing, the metal is then sold to specialist recycling facilities.

Strict waste acceptance procedures are in place at the facility to ensure that only appropriate non-hazardous metal is accepted. A copy of the waste acceptance procedure is included in Appendix 1. Prior to temporary closure in 2006, the facility was primarily involved in processing C&D and C&I waste. The principal activity was storage prior to transport to offsite facilities. These waste types are no longer accepted with the exception of metals arising from these sectors. The principal activity is now metals recovery and this operation involves the segregation, cutting and baling of material prior to transfer off-site for sale. Only fully recyclable, non hazardous metals are purchased.

Waste Processes 2009.

Ferrous Metals

All incoming waste is weighed at the weighbridge and then stockpiled prior to processing. Prior to tipping, loads are subject to waste acceptance and inspection procedures. All contaminant material is removed and stored in a dedicated quarantine storage area prior to removal to a suitable licensed facility. The incoming metal is graded according to size before processing. The main process involves hydraulic shearing of material to a manageable size suitable for metal recovery. The sheared material is a product for reuse in the metals industry and is stored on-site pending loading and transfer to a processor. Material loading and unloading is by forklift/crane.

Non-ferrous Metals

All incoming non–ferrous metal loads are subject to the waste acceptance and inspection procedures prior to treatment. The material is subject to a selection or separation process, prior to baling. The majority of incoming material is pre-sorted to a certain degree to reflect different commercial values associated with different material. The material is sorted by size. Once baled, these smaller bales of non-ferrous material are stored in secure containers, prior to transfer. Oversized pieces are also cut to ensure suitability for baling with the large bailer. If unsuitable for baling, pieces are stored separately prior to removal off-site.

Plant & Equipment

The plant and equipment that are used are set out in Table 2.1.

Table 2.1: Plant & Equipment

Plant Item	Quantity
Mobile Shears Baler	1
Non Ferrous Baler	1
Atlas 1804 – Scrap Handling Machine	1
Solmec Scrap Handling machine	1
Hand Held Cutters	4
Fork Lift	2
Cable Stripper	1
JCB teleporter with bucket attachment	1
Skid steer loader with bucket attachment	1

2.1.1 Waste Types

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

- Commercial & Industrial (30% of total tonnage per annum, 43,500 tonnes),
- Construction & Demolition (70% of total tonnage per annum, 101,500 tonnes).

No hazardous wastes or liquid waste are accepted. Activity at the facility is now limited to metal recovery primarily from the commercial and industrial sector.

3. EMISSION MONITORING

Greenstar implements a comprehensive environmental monitoring programme to assess the significance of emissions from site activities. The programme includes monitoring of sewer emissions as well as dust and noise monitoring. The monitoring locations are shown on Figure 3.1. The monitoring results are submitted to the Agency at quarterly intervals. An overview of the monitoring conducted in the reporting period is presented in this Section.

3.1 Wastewater

Wastewater from the facility discharges to the municipal foul sewer. In Q1 2009 emissions to the sewer were monitored at two locations (E-1 and E-3). E-1 was at the discharge from the vehicle wash bay and E-3 was at the discharge from the waste transfer building.

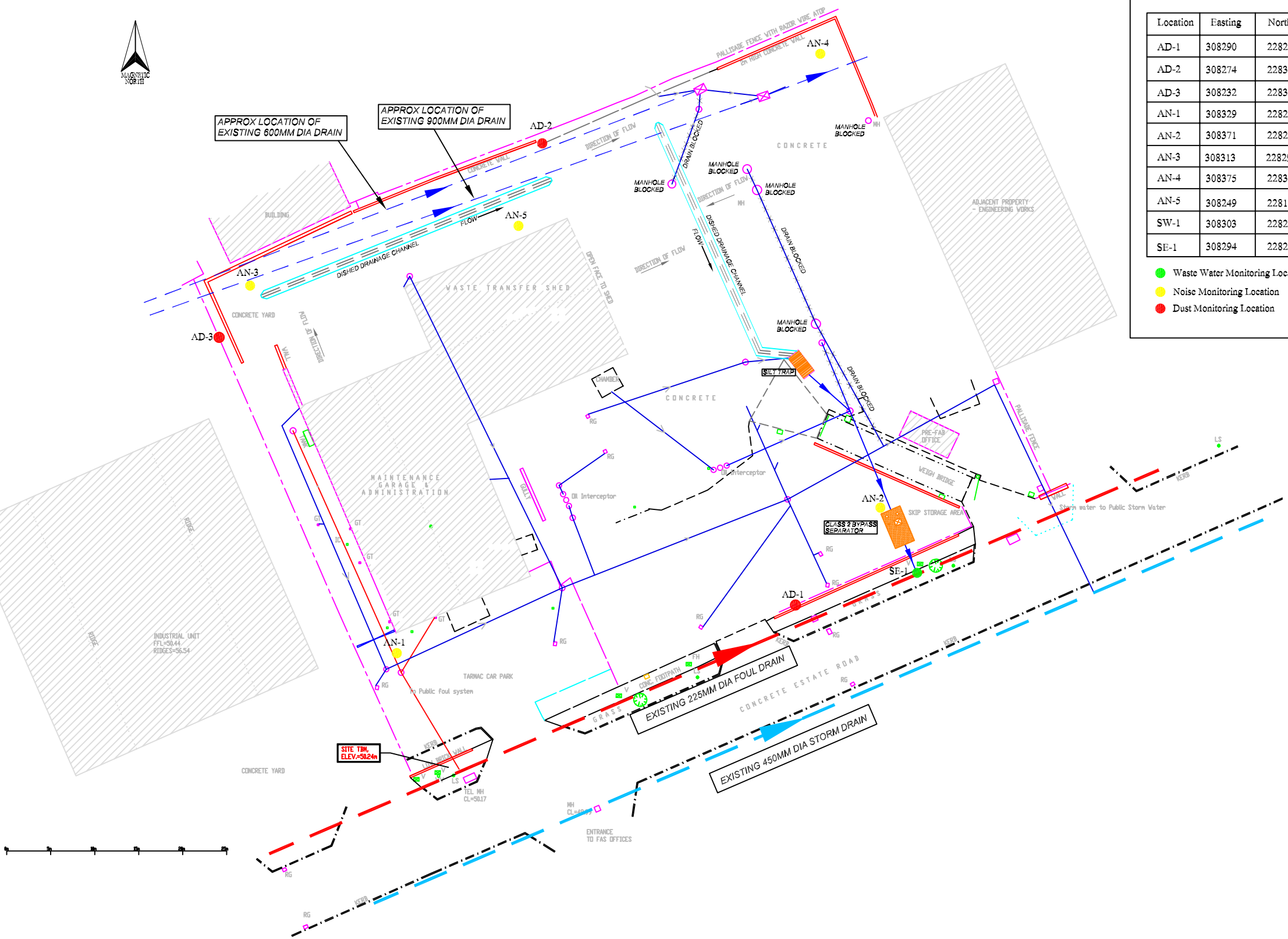
Vehicle washing is no longer carried out at the facility and following approval from the Agency, the surface water drainage system was significantly upgraded in April 2009 to ensure that all run-off from the former vehicle wash area, the transfer station floor and the main working yard area is conveyed to a settlement sump tank, which allows for settlement and collection of any solids within the run-off. The discharge is then channelled through a Class 2 by-pass separator before discharging to the municipal foul sewer.

All process wastewater discharge now leaves the facility at a single location and the upgrade to the drainage system involved changes to the monitoring locations. From Q2 2009, the wastewater discharge was monitored at one location (SE-1).

The range of quarterly analysis was as specified in Schedule C of the Waste Licence and includes pH, ammoniacal nitrogen, Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Oils, Fats & Greases (OFG), surfactants, sulphate and mineral oil. All of the parameters were significantly below the Emission Limit Values (ELVs) set in the Licence. The results are included on Tables 3.1 and 3.2.

Table 3.1 Wastewater Monitoring Results Q1 2009 E-1, E-3

Parameter	Units	E1	E3	ELV
pH	pH Units	7.44	7.36	6 to 10
Temperature	°C	3.4	3.9	42
Ammoniacal Nitrogen	N mg/l	2.2	0.5	70
BOD	mg/l	7	9	2,000
COD	mg/l	85	44	4,000
Total Suspended Solids	mg/l	97	40	700
Oils, Fats & Greases	mg/l	2.13	3.319	100
Surfactants	mg/l	0.7	0.8	100
Sulphate	mg/l	32.3	32.37	1000



NOTES

Location	Easting	Northing
AD-1	308290	228276
AD-2	308274	228330
AD-3	308232	228312
AN-1	308329	228235
AN-2	308371	228265
AN-3	308313	228291
AN-4	308375	228317
AN-5	308249	228183
SW-1	308303	228288
SE-1	308294	228288

- Waste Water Monitoring Location
- Noise Monitoring Location
- Dust Monitoring Location

REV	DATE	DESCRIPTION	DRN	CHKD	APP

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CLIENT

Greenstar Ltd.

TITLE

Monitoring Locations

SCALE	FIGURE No.	REV.
NTS A3	3.1	

Table 3.2 Wastewater Monitoring Results Q2-Q4 2009 SE-1

Parameter	Units	Q2	Q3	Q4	ELV
pH	pH Units	7.98	7.81	7.95	6 to 10
Temperature	°C	12.6	13.5	6	42
Ammoniacal Nitrogen	N mg/l	1.21	2.37	2.8	70
BOD	mg/l	47	43	60	2,000
COD	mg/l	162	201	970	4,000
Total Suspended Solids	mg/l	29	41	<10	700
Oils, Fats & Greases	mg/l	1.73	0.237	1.581	100
Surfactants	mg/l	2.6	0.5	2.3	100
Sulphate	mg/l	167	142.9	146.8	1000
Mineral Oil	mg/l	0.35	<0.01	0.16	N/A

3.2 Dust Monitoring

Dust monitoring is carried out monthly at three monitoring locations on the site boundaries. D-1 is located on the southern boundary, D-2 is on the northern boundary and D-3 is located on the western boundary of the facility. The dust deposition limit set in the Licence (350 mg/m^2/day) was exceeded on seven occasions at monitoring location D-2. The Agency was informed of the exceedances in accordance with Conditions 3.3 and 3.4 of the Licence. The results are included on Table 3.3.

Dust control measures being implemented at the facility include the deployment of a road sweeper on a regular basis and also dampening down of the paved areas. Although the facility was closed between April 2006 and November 2008, dust monitoring was carried out until July 2007. The monitoring from May 2006 to July 2007 identified a number of exceedances of the deposition limit, indicating that there are significant off-site sources of dust.

Table 3.3 Dust Monitoring Results 2009

	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09
D1	134	91	264	261	245	229	92	70	193	172	71	*
D2	**601**	270	**672**	**733**	**770**	**617**	**545**	180	151	**442**	255	*
D3	100	111	182	203	271	194	82	52	151	203	79	*

* - Dust gauges damaged due to severe frost

3.3 Noise Survey

Noise monitoring surveys were carried out bi-annually at the facility, once in February 2009 and again in August 2009. The nearest sensitive receptor is Tallaght Hospital, which is west/southwest of the facility. Monitoring station (NSL1) is located at the northeast gate to the hospital complex, 200 m from the facility. Results of noise monitoring during 2009 are summarised in Tables 3.4 and 3.5.

Noise mitigation measures in place at the facility include the use of concrete acoustic barriers. Both noise monitoring events found that emissions from facility did not impact on the nearest noise sensitive location.

In February 2009, the $L_{Aeq\ 30\ min}$ level recorded at NSL1 (Tallaght Hospital) was 57 dB. In August 2009, the $L_{Aeq\ 30\ min}$ level recorded at NSL1 was 53 dB. The noise environment at this station was influenced by a multitude of sources, including local and distant traffic and emissions from surrounding commercial premises.

It was not possible to definitively determine if Greenstar emissions were audible here due to the variety of noise sources audible, including another waste management facility located 100 m to the east of NSL1. If Greenstar emissions were audible at this station, their contribution to the overall noise level was negligible due to the dominance of local sources. Although there is no ELV set in the Licence this contribution is likely to have been less than 50 dB and therefore lower than the ELV normally set in waste licences (55 dB).

Table 3.4 Noise Monitoring Results February 2009

Station	Time	LAeq 30 min dB	LAF10 30 min dB	LAF90 30 min dB	Noise audible
N1	1107-1137	56	59	51	Plant noise continuously audible at site: forklift truck, baler-shears machine, grabs x2, trucks. Noise emissions from across industrial estate continuously audible in background. Sporadic traffic on adjacent roadway. Consaw in distance clearly audible.
N2	1032-1102	62	65	52	Emissions from various sources onsite audible until 1045: forklift truck, mobile lift platform and trucks. Grab and baler-shears machine restarted 1045 and dominant thereafter. Wheeled grab manoeuvring near N2 1044-1048 intrusive. Sporadic traffic on adjacent roadway. Distant emissions from across industrial estate audible in background. Emissions from consaw in distance significant. Passing helicopter x1.
N3	0853-0923	76	78	61	Emissions from mobile generator and mobile platform lift associated with adjacent construction works continuously dominant until shut off at 0910. Thereafter grab and baler-shears machine dominant. No other noise audible.
N4	0957-1027	83	85-91*	48-54*	Located 1 m from corner due to safety considerations, thus **6 dB correction included** to correct for near field interference from two facades. A 9 dB correction may arguably apply. Sound level meter 2 m from baler-shears machine engine, so engine continuously dominant until shut off at 1015. Thereafter emissions audible from manoeuvring forklift truck. Emissions from truck manoeuvring, tipping metal and dropping skip 1020-1025 significant. Offsite AHU emissions from nearby premises audible in background.
N5	0925-0955	73	74	71	Grab and baler-shears machine continuously dominant. Forklift truck audible moving around yard.
NSL1	1144-1214	57	60	48	No emissions specifically discernable from facility. Local noise environment dominated by almost continuous traffic within and on roadway to hospital. Also pedestrians. Distant emissions of varying character arising from across the industrial estate.

Table 3.5 Noise Monitoring Results August 2009

Station	Time	LAeq 30 min dB	LAF10 30 min dB	LAF90 30 min dB	Noise audible
N1	1119-1149	59	63	50	Power cutting tool in site yard in intermittent use and dominant. Grab and BS machine in NE corner also audible. Offsite, sporadic vehicle movements on industrial estate access road audible.
N2	1010-1040	64	66	48	No emissions onsite until 1015 when operations gradually recommenced. Site fully operational by 1020, from which grab and BS machine manipulating metal at NE corner dominant.
N3	1043-1113	88	93*	82*	Located 1 m from corner due to safety considerations, thus **6 dB correction included** to correct for near field interference from two facades. A 9 dB correction may arguably apply. BS machine immediately adjacent to SLM dominant continuously. Grab loading metal into machine also audible. Both machines shut down from 1106, following which grab manipulating metal at NE corner dominant.
N4	0906-0936	81	84*	77*	Located 1 m from corner due to safety considerations, thus **6 dB correction included** to correct for near field interference from two facades. A 9 dB correction may arguably apply. BS machine continuously dominant. Grab loading metal also audible. No other emissions audible.
N5	0938-1008	77	81	52	Grabs manipulating metal at NE and at NW corners dominant. BS machines also audible. Mobile plant audible when passing close to SLM. No offsite emissions audible. Site quietening down from 0955, until complete silence at 1000, after which one offsite source dominant: FLT at adjacent premises.
NSL1	1159-1229	53	55	46	No emissions specifically audible from facility, although noise audible at low level from several surrounding commercial premises. Local traffic movements frequent and dominant. Also pedestrian voices. Continuous whine audible from road sweeper truck in distance. Aircraft.

4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

The Licence specifies that run-off from the open yard areas can be discharged to a separate municipal surface water sewer. Given that the main focus of activity has changed, it was necessary to upgrade to the surface water drainage system.

Although the metals accepted at the facility are inert, some pieces can have traces of oil on their surfaces, which present a potential risk of contamination of surface water run-off. The surface water drainage system was changed, with the approval of the Agency in April 2009. The works involved the construction of a re-enforced concrete dished channel to collect surface water run-off in the metal processing area and to ensure that all run-off from the main working yard area passes through silt traps and a Class 2 Bypass Separator before discharge to the municipal foul sewer. The upgrade was completed in May 2009.

Improvement to the site security was also completed in 2009. This involved erection of additional fencing close to the site car park.

A dedicated waste quarantine area was established at the facility which includes a secure galvanised shed where metals including gas bottles are temporarily stored pending delivery to an authorised outlet. Details of the quarantine area were forwarded to the Agency in July 2009.

4.2 Summary of Resource & Energy Consumption

Table 4.1 presents an estimate of the resources used on-site during the reporting period.

Table 4.1: Estimate of Resources Used On-Site

Resources	Quantities
Diesel	58,685 litres
Water	400 m^3
Electricity	52,424 kWh
Kerosene	1,075 litres
Propane	1,047 kg

4.3 Bund Integrity Test

New bunding was provided in 2009 and is fit for purpose. The onsite oil interceptors and silt traps were emptied by ENVA Ltd and 3,660 litres of waste water was removed to their authorised facility in Portlaoise.

5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

Table 5.1 shows the quantities of waste received and consigned from the facility in 2009. For comparative purposes Table 5.2 shows the total quantities of waste received at and consigned from the facility in 2008. A breakdown of the waste types is provided in accordance with the European Waste Catalogue and Hazardous Waste list.

The total quantity of waste received at the facility was 23,631.77 tonnes. The total waste consigned was 22,840.58 tonnes. The difference is due to the amount of materials retained on site on the 31st December 2009. The recycling rate for the facility is estimated at 98%.

All the wastes consigned from the site went to recovery and disposal facilities with the appropriate waste licences and permits as agreed with the Agency.

Table 5.1: Waste Received & Consigned 2009

EWC	Description	Waste In	Waste Out
12 01 01	Swarf	504.62	
12 01 03	Non Ferrous scrap		1,210.43
15 01 04	Packaging (Fe)	250.6	
	Packaging (Non Fe)	145.7	
15 01 07	Glass Bottles	511.6	58.68
16 01 03	Tyres		11.38
16 01 06	Ferrous metal from vehicles	145.98	
16 01 08	ELV metal, non ferrous	6.12	
16 01 17	Hydraulic Hoses		
16 01 20	Flat Glass –ELV	477.1	
16 02 14	Discarded WEEE - depolluted	3,004.94	
16 06 01*	Batteries	151.42	174.54
16 08 01	Catalyst	2.5	
17 02 02	Flat Glass – C&D	1,835.25	1,399.69
17 04 01	Copper & Brass – C&D	103.03	
17 04 02	Aluminium – C&D	266.66	
17 04 03	Lead	20.6	
17 04 05	Ferrous Scrap – C&D	9,775.02	
17 04 06	Tin	0.7	
17 04 07	Mixed Metals	51.83	
17 04 11	Cable	16.16	
	Cables	163.47	
19 12 02	Ferrous scrap – Waste Facilities	6,041.92	19,657.60
19 12 03	Non- Ferrous scrap – Waste Facilities	156.52	
19 12 07	Wood		11.44
19 12 12	Non metallic waste from site		272.16
			44.50
	Total Received	**23,631.77**	
	Total Consigned		**22,840.58**
	Total Recovered		**22,568.42**
	Total Disposed		**272.16**
	Recovery Rate		**98.81%**

Table 5.2: Waste Received & Consigned 2008

EWC	Description	Waste In	Waste Out
12 01 01	Swarf	15.9	
	½ Steel		639.08
15 01 04	Aluminium Cans	1.86	
15 01 07	Clear Glass Bottles	59.2	49.26
	Mixed Bottle Glass		5
16 01 06	Cars – depolluted	2.5	
16 01 17	Hydraulic Hoses	7.78	
16 01 20	Flat Glass –ELV	73.98	51.84
16 02 14	White Goods - depolluted		21.22
16 02 16	Components removed from white goods		21.46
17 02 02	Flat Glass – C&D	17.48	
17 04 01	Copper	10.06	1.16
	Brass	6.26	1.1
17 04 02	Aluminium	6.72	3.16
17 04 05	Heavy Scrap	28.08	
	Light Iron	1.4	
	Profiles	17.58	
	Stainless Steel	17.62	15
17 04 07	Mixed Metals	2.54	6.84
			10.96
	Scrap	173.86	
	Shearing Scrap	558.5	
17 04 11	Aluminium Cable	4.9	
	Copper Cable	20.64	22.86
20 01 40	½ Steel		23.36
	Total Received	**1026.86**	
	Total Consigned		**848.94**
	Total Recovered		**848.94**
	Recovery Rate		**100%**

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There were seven exceedances of the dust deposition limit in 2009, all of which were reported to the Agency. There were no other incidents during the reporting period.

The facility is in an industrial estate and there are no nearby sensitive receptors. Previous monitoring when the site was not operational (May 2006 to July 2007) identified a number of exceedances of the deposition limit, indicating that there are significant off-site sources of dust. Following the reopening of the facility, the dust monitoring programme was resumed. The monitoring identified regular exceedances of the deposition limit at D 2 although the levels measured at the other locations have consistently been significantly less than the deposition limit.

From the summer, a series of dust suppression measures have been implemented, including the employment of a road sweeper and continual dampening of the site surfaces. These proved effective and in August, September and November the dust levels measured at D2 were well below the deposition limit. Monitoring was not possible in December as the dust gauges were damaged due to severe frost.

It is considered that the dust levels recorded at the northern site boundary (D2) have not resulted in significant impairment of, or significant interference with amenities or the environment beyond the facility boundary.

6.2 Register of Complaints

MSM maintains a register of complaints received in accordance with Condition 3.11 of the waste licence. There were no complaints received during the reporting period.

7. ENVIRONMENTAL DEVELOPMENT

7.1 Environmental Management Programme Report

MSM has introduced an Environmental Management System (EMS) for the facility. Details of the EMS including the schedule of objectives and targets for 2010 are outlined below

7.1.1 Site Management Structure

The Management and Staffing structure of MSM is: -

Name	Experience
Con Ward (Managing Director)	40 years in Waste Management
Anthony Ward (Recycling Manager/Director)	40 years in Waste Management
Jason Ward (Yard Manager)	6 Years in Waste Management
Eamon Mitchell (Yard Manager)	15 Years in Waste Management
Rose Lloyd (Environmental Manager)	2 Years in Waste Management

The Management and Staffing Structure for Greenstar is:

Name	Experience
Aidan Shanahan (Head of Leinster MRF Operations)	16 years in Operations Management. 5 years in Waste Management
Malcolm Dowling (Environmental Compliance Manager)	8 years in Waste Management
Suzanne Byrne (Environmental Executive)	3 Years in Waste Management

7.1.2 Staff Training

Staff training carried out during the year included manual handling training, first aid at work training, safe pass, scissors lift training, teleporter training, skid steer training, metal grab training and forklift training. The training records are available for viewing on site.

7.2 Environmental Management Programme Proposal

The schedule of Objectives and Targets, including their status for 2009 (Table 7.1), as well as the proposed Objectives and Targets for 2010 (Table 7.2) are presented below.

7.2.1 Schedule of Objectives and Targets 2009

The 2009 Schedule included five objectives, which are summarised in Table 7.1. An evaluation of what has been achieved to date is presented below.

Objective 1 – New Quality Procedures

The quality procedures were reviewed and implemented in 2009.

Objective 2 – Environmental Procedures

Environmental procedures assessment and review to be completed in Q2 2010.

Objective 3 – Housekeeping

Housekeeping was much improved in 2009 and staff awareness of cleanliness and good housekeep has also improved.

Objective 4 – Drainage System

Environmental manager carries out an inspection every day, records are kept on site. The drainage system was upgraded and the environmental manager is responsible for ensuring that it is maintained correctly.

Objective 5 – Licence Compliance

The facility implements various waste acceptance and operational procedures and has developed the drainage system at the facility in order to achieve compliance with the Licence conditions.

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 Policy includes a specific commitment to make the environmental records available to the public and interested parties.

To this end, Greenstar has drawn up a Communications Programme, which details how members of the public were facilitated in accessing environmental information at the facility. The following documents are available for public viewing:-

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

7.4 Report Financial Provision

Greenstar has accrued over €3,000,000 in funds, to provide for any potential environmental liabilities. Greenstar has adequate insurance cover for environmental liabilities to €6,350,000 for any one occurrence, which will apply to "sudden identifiable and unintended incidents".

Table 7.1: Schedule of Objective and Targets 2009

No	Objective	Target	Responsibility	Timescale
1	**New quality procedures**	Identify and establish new quality procedures for site. Ensure all relevant staff follow procedures.	Environmental Manager	Complete
2	**Environmental procedures**	Identify and establish new environmental procedures for site. Ensure all relevant staff follow procedures.	Environmental Manager	Complete Q2 2010
3	**Housekeeping**	Improve housekeeping, segregate storage areas, improve quarantine area	Environmental Manager and Directors	Complete
4	**Drainage System**	Upgrade drainage system to divert surface water drainage from open yard areas to the foul sewer via a bypass separator	Environmental Manager	May 2009
5	**Licence compliance**	Ensure license compliance	Environmental Manager / Greenstar	Ongoing

Table 7.2: Schedule of Objective and Targets 2010

No	Objective	Target	Work Programme	Responsibility	Timescale
1	**Improve quality of incoming material**	Reduce contamination in incoming loads.	Apply existing waste acceptance procedure vigilantly	Environmental Manager	Daily
2	**H&S Improvements**	Review safety statement	Update if necessary	Environmental Manager	Q2 2010
3	**Environmental Compliance**	Complete Environmental Risk Assessments	Carry out and record assessments	Environmental Manager	Q1 2010
4	**Environmental Compliance**	Undertake management review	Plan and carry out management review every third month	Environmental Manager	Quarterly
			Review nuisance controls in particular dust mitigation measures		

No	Objective	Target	Work Programme	Responsibility	Timescale
5	**Legislative Compliance**	To meet all targets for Licence compliance	Ensure Compliance	Environmental Manager	Daily

8. OTHER REPORTS

8.1 European Pollutant Release and Transfer Register

Under the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006 Greenstar is 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.

8.2 Other Reports

In November 2009, a Licence Review application was submitted to the Agency and is currently ongoing. The aims of the review are to change of the principal activity from Class 13 of the Third Schedule to Class 3 of the Fourth Schedule of the Waste Management Act 1996 to 2008; to allow for the external processing of metals; to allow for the acceptance of End of Life Vehicles and to allow for the acceptance of metal wastes from commercial enterprises and households. It is proposed to accept 60,000 tonnes of waste annually rather than the 145,000 tonnes of waste currently allowed.

As described in Section 4.1, an upgrade to the surface water and wastewater drainage systems was agreed with the Agency in April 2009 and implemented in May 2009.

APPENDIX 1

Waste Acceptance Procedure

1.0 Purpose

To establish and maintain procedures for waste acceptance.

2.0 Scope

This procedure applies to all staff involved in waste acceptance. MSM will only accept metal for recycling at the Cookstown Site. The following procedure describes, in detail how MSM ensure that they have only non hazardous metal for sorting, baling and sale to recycling facilities.

3.0 Responsibility

The Sales Representative, Recycling Manager, Yard Manager, Environmental Manager, yard staff and drivers are responsible for ensuring that this procedure is carried out.

4.0 Procedure

4.1 Upon setting up a new customer the Sales Representative or Recycling Manager will explain our waste acceptance procedure (EOP003) and issue the customer with the list of acceptable waste types including the EWC code to prevent any confusion.

4.2. All metal is purchased from suppliers and MSM pay by weight according to the type of metal being sold. However MSM still take the following steps to maintain the quality of the material that is handled at Cookstown:

i. **In the case of MSM skips at customer's sites.** MSM strive to ensure that prior notification of acceptable materials is provided to one off customers who hire skips for the collection of metal scrap. Before MSM will collect a full skip the driver will undertake a visual inspection of the contents. If there is any contamination visible they will require this to be removed prior to bringing the skip to Cookstown. In the case of uncertainty the driver will contact the Environmental Manager for clarification before lifting the skip.

ii. **In the case of recycling businesses delivering to Cookstown.** MSM ensure that any company or haulier delivering scrap to Cookstown has a valid Waste Collection Permit. MSM have issued an acceptance letter to each business prior to accepting waste at Cookstown.

iii. **In the case of casual customers**. Casual customers may have no prior data about what MSM will accept, but a notice is located in the

weighbridge office stating what is permissible, and what is not permissible, to bring on to the site.

5.0 Each load that comes to site is weighed.

Almost all loads are weighed on the weighbridge at the entrance to the site. However, very small small loads are weighed on the scales inside the warehouse.

Dockets are issued for each load, specifying:

Haulier
Originator of waste
Product, with EWC
Name of weighbridge operator
Destination of the load (i.e. acceptance at Cookstown)
Total weight, empty weight, and calculation of load weight.
Date, time, docket number.

6.0 The Load is tipped

Waste is taken to the tipping area, and tipped under supervision by MSM staff. A visual inspection of the load is carried out immediately. This inspection applies to all loads. In cases where no issues arise from the visual inspection, sorting and handling continues as normal.

i. When a MSM Recycling driver tips on site the load is inspected again. Any unacceptable waste will be photographed and the Environmental Manager will contact the customer and apply the appropriate charge for handling and disposal of this waste.

ii. In the case of customers delivering to site directly the load will be inspected upon tipping and any unacceptable waste will be given back to the customer or disposed of by MSM Recycling at a cost to the customer.

iii. Unacceptable wastes found on site will be quarantined and disposed of as required.

iv. Acceptable wastes will be processed in the appropriate area and stored in a designated storage area until ready to be loaded.

7.0 In cases of contamination:

i. Low levels of contamination

If non conforming items are found in the load images are taken. Non metallic, or hazardous materials are removed from the load by hand, and segregated. Bins are located adjacent to the area for non metallic items and rubbish. Hazardous items are removed and either returned to the delivery truck, or taken to the quarantine area, away from the active work area. These items are stored with like items and are removed from the site as quickly as possible to a licenced recycling facility.

ii. Where there is a high proportion of contamination

The metallic portion of the load is separated from the contaminated portion, by hand or using the grab machine. Images of the contamination are taken and stored on MSM's computer system. The unacceptable material is rejected, loaded back onto the delivery truck and returned to the supplier of that load of material. The weight of the metal portion is calculated, by weighing the truck with the rejected material in it, and MSM will only pay for the metal that is accepted.

iii. In all cases where there is a contaminated load

Images are taken and stored in MSM's Non Conforming Loads File. Each load is logged by date and supplier. The Environmental Manager records the loads in the Non Conforming Waste Tracker spreadsheet, before passing details of the non conformity to the generator of the scrap metal.

A review of non conforming loads is undertaken at weekly management meetings. Each quarter a summary of all non conforming loads is prepared for management to review.

8 Sanctions

Since MSM purchase material by weight, MSM always have the option to with hold payment if unacceptable material is delivered to site. Fines are imposed for non metallic content where necessary.

Material we do accept

Ferrous metal

Non-ferrous metal

Metallic packaging

Glass packaging

Flat glass

Depolluted ELVs from ATF

Material we do not accept

Tyres

Plastic

Oil filters

Batteries (loose)

Gas bottles/closed cylinders

Fire extinguishers

Paint tins containing liquid/paint

Fluorescent light bulbs

Non-discharged white goods/WEEE

Wood

Domestic waste

Electric circuits/panels

Hazardous waste

Concrete

Metals containing oil

ELVs (non-depolluted)

APPENDIX 2

European Pollutant Release and Transfer Register

Environmental Protection Agency

AER Returns Worksheet

Version 1.1.10

REFERENCE YEAR	2009

1. FACILITY IDENTIFICATION

Parent Company Name	Greenstar Materials Recovery Ltd
Facility Name	Greenstar Ltd
PRTR Identification Number	W0079
Licence Number	W0079-01

Waste or IPPC Classes of Activity

No.	class_name
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.
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.
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.

Address 1	Unit 41
Address 2	Cookstown Industrial Estate
Address 3	Tallaght
Address 4	Dublin 24
Country	Ireland
Coordinates of Location	-6.37582 53.294
River Basin District	IEEA
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Declan O Reilly
AER Returns Contact Email Address	suzanne.byrne@greenstar.ie
AER Returns Contact Position	
AER Returns Contact Telephone Number	
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	0
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?	
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 ?	

4.1 RELEASES TO AIR

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR								
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								
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								
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 Ltd

Please enter summary data on the quantities of methane flared and / or utilised			Method Used			
	T (Total) kg/Year	**M/C/E**	**Method Code**	**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

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								
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								
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								
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

| PRTR# : W0079 | Facility Name : Greenstar Ltd | Filename : W0079_2009.xls | Return Year : 2009 | 31/03/2010 14:28

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER								
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								
POLLUTANT		METHOD			QUANTITY			
			Method Used		SE-1			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
238	Ammonia (as N)	E	EN ISO 17025	Based on an estimate of run off from the MRF building and yard areas	5.305	5.305	0.0	0.0
303	BOD	E	EN ISO 17025	Based on an estimate of run off from the MRF building and yard areas	124.729	124.729	0.0	0.0
306	COD	E	EN ISO 17025	Based on an estimate of run off from the MRF building and yard areas	1108.425	1108.425	0.0	0.0
240	Suspended Solids	E	EN ISO 17025	Based on an estimate of run off from the MRF building and yard areas	87.31	87.31	0.0	0.0
314	Fats, Oils and Greases	E	EN ISO 17025	Based on an estimate of run off from the MRF building and yard areas	2.948	2.948	0.0	0.0
308	Detergents (as MBAS)	E	EN ISO 17025	Based on an estimate of run off from the MRF building and yard areas	4.49	4.49	0.0	0.0
343	Sulphate	E	EN ISO 17025	Based on an estimate of run off from the MRF building and yard areas	380.157	380.157	0.0	0.0
324	Mineral oils	E	EN ISO 17025	Based on an estimate of run off from the MRF building and yard areas	0.63	0.63	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

SECTION A : PRTR POLLUTANTS

RELEASES TO LAND							
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							
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

| PRTR# : W0079 | Facility Name : Greenstar Ltd | Filename : W0079_2009.xls | Return Year : 2009 |

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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	15 01 07	No	58.68	Glass Bottles	R5	M	Weighed	Offsite in Ireland	Gannons Eco,N/A	Split Hill Quarries,Hazelwood,Kilbeggan,Co. Westmeath,Ireland		
To Other Countries	12 01 03	No	1210.43	Non Ferrous Scrap	R4	M	Weighed	Abroad	F.J. Church & Sons,WML 80771	Centenary Works Manoc Way,Raintam,Essex,RM1,United Kingdom		
Within the Country	16 01 03	No	11.38	Tyres	R3	M	Weighed	Offsite in Ireland	Crumb Rubber Ireland Ltd.,WP 2007/01	Mooretown,Dromiskin,Dundalk,Co. Louth,Ireland		
Within the Country	16 06 01	Yes	174.54	Batteries	R5	M	Weighed	Offsite in Ireland	KMK Metals,W0113-01	Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	KMK Metals,W0113-01,Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland
To Other Countries	17 02 02	No	1399.69	Flat Glass	R5	M	Weighed	Abroad	Vindor Glass Recycling,IRE/AG010/08	Lanots Lane,St. Helens,Merseyside,WA9 3EX,United Kingdom		
To Other Countries	19 12 02	No	19657.6	Ferrous Scrap	R4	M	Weighed	Abroad	EMR Recycling,WML 50447	Liverpool Docks,Liverpool ,,,,,United Kingdom		
Within the Country	19 12 07	No	11.44	Wood	R3	M	Weighed	Offsite in Ireland	AES,W0194-02	Kyletalesha,Portlaoise,Co. Laois,.,Ireland		
Within the Country	19 12 12	No	44.5	Non metallic waste from site	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd,W0188-01	Greenogue Industrial Estate,Rathcoole,Co. Dublin,.,Ireland		
To Other Countries	12 01 03	No	1210.43	Non Ferrous Scrap	R4	M	Weighed	Abroad	F.J. Church & Sons,WML 80771	Centenary Works Manoc Way,Raintam,Essex,RM1,United Kingdom		

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