

Office of Environmental Enforcement,
South East Region,
Environmental Protection Agency,
P.O. Box 3000,
Johnstown Castle Estate,
Co. Wexford.

30th March 2009


RE: Annual Environmental Report - Greenstar Ltd. - Gorey, Co. Wexford – Reg. No. W0220-01

Dear Sir / Madam,

Please find enclosed, on behalf of Greenstar Ltd., an original and 2 no. copies of the Annual Environmental Report completed at the above referenced facility for 2008. 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.

If you have any queries, please call me.

Yours sincerely,



Michael Watson

0804810/MG/JC

Encs.

c.c. Ms Suzanne Byrne, Greenstar Ltd.,
Mr. Sean Doran, Greenstar Ltd.



ANNUAL ENVIRONMENTAL REPORT
FOR GREENSTAR LTD.
GOREY BUSINESS PARK, GOREY
COUNTY WEXFORD
LICENCE NO. W0220-01
JANUARY 2008 – DECEMBER 2008

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.

30th March 2009

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1. INTRODUCTION

This is the third Annual Environmental Report (AER) for Greenstar Ltd. (Greenstar), waste transfer facility at Gorey Business Park, Ramstown, Gorey, County Wexford. The AER is required by conditions of Waste Licence (Register No.W0220-01), which was issued by the Environmental Protection Agency (Agency) on 1st September 2006. This AER describes site activities from the 1st January 2008 to the 31st December 2008.

The contents of the AER is based on Schedule F of the Waste Licence and the report format follows guidelines set in the “Draft Guidance on Environmental Management Systems and Reporting to the Agency” issued by the Agency.

2. SITE DESCRIPTION

2.1 Waste Management Activities

The facility is a non-hazardous waste transfer facility, where wastes are processed and treated to recover recyclable materials thereby minimising the quantity of waste disposed to residual landfill. The Licence allows Greenstar to accept and process 30,000 tonnes of waste per annum.

2.1.1 *Waste Types*

The facility is licensed to accept the following waste types, which are specified in Schedule A of the Licence: -

- Household (18,000 tonnes),
- Commercial & Industrial and Construction & Demolition (12 tonnes).

3. EMISSION MONITORING

Greenstar implements the environmental monitoring programme specified in the Licence to assess the significance of emissions from site activities. The programme specified in the licence includes groundwater, surface water (discharge from holding tank to percolation area), waste water removed off-site and noise monitoring. Surface water runoff is now directed to a wastewater holding tank and has been incorporated into the waste water monitoring programme as agreed with the Agency. The monitoring locations are shown on Figure 3.1.

The monitoring programme is carried out in accordance with the frequency specified in the Licence. The monitoring results are submitted to the Agency at quarterly intervals. An overview of the results of the monitoring results is presented in this Section, with summary tables in Appendix 1.

3.1 Surface Water/ Waste Water Programme

Surface water generated by rainfall on the paved open yard areas discharges via a petrol/oil interceptor to a waste water holding tank and is removed off site to a waste water treatment plant (WWTP) in Athy, County Kildare as agreed with the Agency.

The Licence requires the monitoring of each consignment of surplus water from the holding tank. On the 27th May 2008 the Agency agreed to reduce the frequency from each consignment to quarterly and the parameters should include chloride, ammonia and COD (Ref: W0220-01/ap01eok.doc). The bi-annual monitoring for metals and organohalogenes remains the same. Quarterly monitoring of the wastewater was undertaken from Q2 2008.

Samples were being taken once every six loads prior to the agreement to collect quarterly samples. Less than six loads were removed from the site in Q1 and therefore monitoring was not carried out. Monitoring was carried out quarterly thereafter as discussed above. A summary of the results is included in Appendix 1. The wastewater comprises surface water run-off and the contents of the on-site septic tank and the results are consistent with a dilute sanitary wastewater and have been suitable for acceptance at the WWTP.

3.2 Ground Water Monitoring

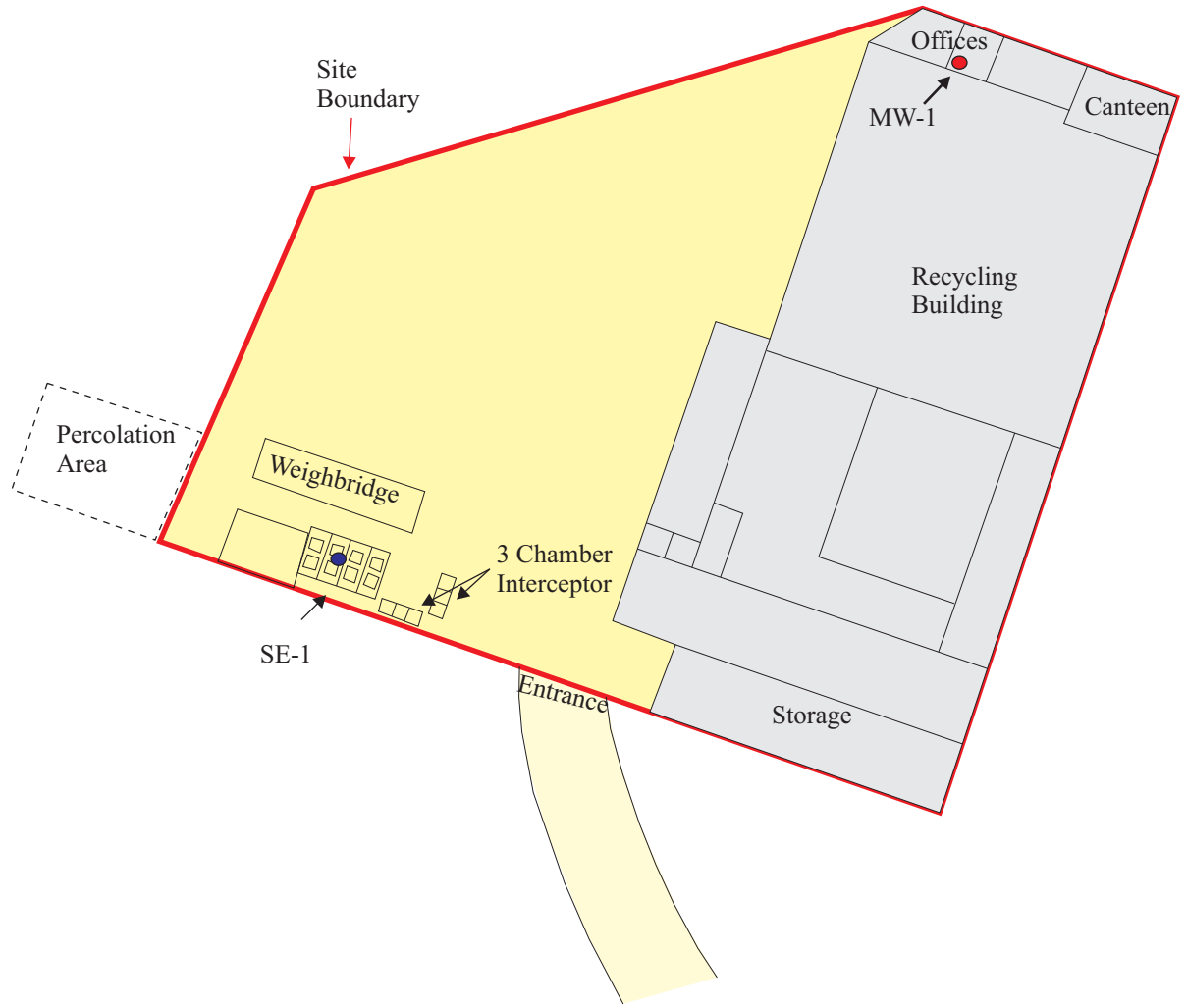
The Licence requires annual groundwater monitoring. There is an on-site well (MW-1), which was installed to provide both a potable and process water supply. Testing of the well indicated that it was not suitable for potable use and it is not used for this purpose, but is used

for monitoring purposes. The well location is shown on Figure 3.1. The monitoring was carried out in May 2008 and a summary of the results is included in Appendix 1.

The levels of sodium, potassium, sulphate, chloride and conductivity levels all exceeded their respective IGV levels. These levels are similar to those measured during previous monitoring events and are not related to current site activities. The site was formerly occupied by a tannery, where salt was used in the curing process. Tanneries are recognised sources of soil and groundwater contamination and the elevated level of chloride and electrical conductivity are consistent with the historic site use, and are not related to the waste transfer activities.

3.3 Noise Monitoring

Greenstar carried out the annual noise survey at the facility in May 2008 and the results were submitted to the Agency in October 2008. Monitoring was carried out at three offsite noise monitoring locations, N-1, N-2 and N-3. The survey was conducted when the site was fully operational. The survey concluded that the facility was in compliance with its licence requirements.



LEGEND	
	Site Boundary
	Building
	Surface Water Monitoring Point
	Ground Water Monitoring Point



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

CLIENT
Greenstar Ltd.

TITLE
**Monitoring Locations
 Gorey**

FIGURE NUMBER
3.1

Scale
 Not To Scale

Revision
A

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4. SITE DEVELOPMENT WORKS

4.1 Engineering Works

Schedule D of the Waste Licence list the Specified Engineering Works to be carried out at the facility, no engineering works were carried out during the reporting period. Greenstar will inform the Agency about any proposed specified engineering works in accordance with Condition 3.3.1 of the Licence.

4.2 Energy Efficiency

An energy audit was carried out in May 2008 in accordance with Condition 7.1 of the Licence and with the guidance published by the Agency - "Guidance Note on Energy Efficiency Auditing (2003)" and the report was submitted to the Agency on the 30th June 2008. The facility is not a significant consumer of resources however the audit showed that savings could be made by the installation of daylight/time controls on the lighting systems within the facility. The facilities carbon footprint could also be reduced by switching to a renewable energy electricity supply. Table 4.1 presents an estimate of the resources used on-site from January to December 2008.

Table 4.1 Estimate of Resources Used On-Site

Resources	Quantities
Diesel	4,630 litres
Odour Control Additive	11 litres
Hydraulic Oil	46 litres
Electricity	30,849 units

5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

Table 5.1 shows the total quantities of waste received and consigned from the facility from January to December 2008. Table 5.2 shows the waste quantities for 2007 while the quantities for previous years are shown on Table 5.3. A breakdown of the waste types is provided in accordance with the European Waste Catalogue and Hazardous Waste (EWC/HWL) list.

The total quantity of waste accepted was 15,855.18 tonnes. The total waste consigned was 16,036.83 tonnes. Approximately 80 tonnes remained on site at the end of 2008 which will be consigned in 2009. The difference (approximately 151 tonnes) relates to a <1% error between the waste in and out weighbridges. The recycling rate for the facility is 46.28%

All the wastes consigned went to appropriately licensed or permitted recovery and disposal facilities. The name and location of the facilities are given in Table 5.4.

Table 5.1 Waste Received & Consigned 2008

EWC	Description	Waste In	Waste Out	Destination
15 01 01	Cardboard Packaging	193.73		
15 01 02	Plastic Packaging	1.57	22.58	Marwin Environmental
15 01 06	Mixed Packaging	1,514.24	1,528.95	Greenstar Fassaroe
			25.56	Glyntown Enterprises
15 01 07	Glass Packaging	27.63		
17 01 07	C&D Inert Mixed	48.52	1,926.16	C.R.S.
17 05 04	C&D Inert Mixed	1,804.59		
	Soil & Stones	58.76		
19 12 12	C&I Dry Mixed	1.87	641.51	Greenstar Fassaroe
			3,165.84	Greenstar Millennium
			8.20	Ballynagran Landfill
	MSW Municipal Mixed		8,607.34	Ballynagran Landfill
20 01 01	Cardboard & Paper	0.26		
20 01 38	Wood	129.67	78.97	Greenstar Fassaroe
20 01 40	Metal	34.60	31.72	Molloy Metals
20 03 01	MSW Municipal Mixed	7,874.60		
20 03 07	C&I Dry Mixed	4,195.14		
	Total Received	15,885.19		
	Total Consigned		16,036.83	
	Total Recycled		7,421.29	
	Total Disposed		8,615.54	
	Recycling Rate		46.28%	

Table 5.2 Waste Received & Consigned 2007

EWC	Description	Waste In	Waste Out	Destination
15 01 01	Cardboard Packaging	310.33		
15 01 04	Aluminium Cans	17.38		
15 01 06	Mixed Packaging	1,565.53	213.04	Clearpoint Recycling
			1,362.89	Greenstar Fassaroe
			13.00	Greenstar Sarsfieldcourt
15 01 07	Glass Packaging	2.94		
17 01 07	C&D Inert Mixed	1,165.01	961.14	C.R.S.
			421.08	Greenstar Fassaroe
17 05 04	C&D Inert Mixed	319.40	16.55	C.R.S.
19 12 02	Metals		32.68	Molloy Metal Recycling
19 12 09	Fines C&I	2.07		
19 12 12	C&I Dry Mixed		2,067.80	Ballynagran Landfill
			117.68	Greenstar Fassaroe
			5,506.59	Greenstar Millennium
	MSW Municipal Mixed		7,397.93	Ballynagran Landfill
			584.48	BRP Baler
			1,085.70	Knockharley Landfill
20 01 38	Wood	407.87		
20 01 40	Metal	50.49		
20 03 01	MSW Municipal Mixed	8,450.59		
20 03 07	C&I Dry Mixed	6,678.61		
91 00 00	None	8.53		
	Total Received	18,978.75	19,780.56	
	Total Recycled		9,229.13	
	Total Disposed		10,551.43	
	Recycling Rate		46.66%	

Table 5.3 Previous Years Waste Received and Consigned

	2006
Total Received	23,944.64
Total Recycled	15,895.52
Total Disposed	9,155.63
Recycling Rate	63%

Table 5.4 Off-Site Disposal / Recovery Agents

Final Recovery or Disposal Destination	Waste Licence or Permit	Waste Type Accepted
AES Midland Waste, Clonmagaddan, Proudstown Road, Navan, Co. Meath	W0131-02	MSW
Ballynagran Landfill, Coolbeg and Kilcandra, Co. Wicklow	W0165-01	Mixed MSW
BRP Baler, Ballyogan Landfill Facility, Ballyogan Road, Carrickmines, Dublin 18	W0015-01	MSW
Calor Gas, Longmile Road, Dublin 12	N/A	Gas Cylinders
Clearpoint Recycling, Ballylynch, Carrick-on-Suir, Co. Tipperary	WM/WP/12/05	Mixed Packaging
C.R.S., Montague, Gorey, Co. Wexford	WP/05/24	C&D
Davis Recycling Ltd., Pigeon House Road, Dublin 4	WP 98067	Metal, Plastic & Mixed Electronics
Greenstar Recycling, Millennium Business Park, Ballycoolin, Dublin 11	W0183-01	C&I
Greenstar Cork, Sarsfieldcourt Industrial Estate, Glanmire, Co. Cork	W0136-02	Mixed Packaging
Greenstar Recycling, Fassaroe, Bray, Co. Wicklow	W0053-03	Mixed Waste, C&I
Glyntown Enterprises, Sarsfieldcourt Industrial Estate, Glanmire, Co. Cork	CK (S) 329/06	Mixed Packaging
Knockharley Landfill, Navan, Co. Meath	W0146-01	MSW
KTK Landfill, Kilcullen, Co. Kildare	W0081-01	C&I
Marwin Environmental, 7 Glyntown Heights, Glanmire, Co. Cork	926 (Waste Broker Cork City Council Registry)	Plastic Packaging
Molloy Metals Recycling, Ballycarney, Enniscorthy, Co. Wexford	WP/000/15	Metal
South East Recycling Company, Pembrokestown, Co. Wexford	W0111-01	Mixed Waste

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 11.9 of the waste licence. No complaints were received in 2008.

7. ENVIRONMENTAL DEVELOPMENT & CONTROL

7.1 Management Structure

Details of the site management structure are given below.

Name: John Mernagh

Responsibility: General Manager; overall management of the site

Experience: 21 years experience.

Name: Andrew Rinkulis

Responsibility: Operations Manager

Experience: 7 years experience

Name: Sean Doran

Responsibility: Facility Manager/Supervisor

Experience: 4 years experience

Name: Thomas O'Leary

Responsibility: Operative / Machinery / Loader / Driver

Experience: 4 years experience

7.2 EMS

Condition 2.2.2 requires Greenstar to submit a proposal for a documented Environmental Management System (EMS) to the Agency for its approval. The EMS must include a Schedule of Objectives and Targets, an Environmental Management Programme (EMP), Corrective Action Procedures and an Awareness and Training Programme. It was intended to submit this proposal to the Agency in 2008 however due to an oversight this was not carried

out. A proposal for an EMS will be sent to the Agency in 2009 for its approval. A new procedure for the handling of gypsum waste was developed in 2008, a copy of which is included in Appendix 2. The facility has all of the components for an EMS in place.

In Q3 2008 Greenstar initiated a programme to update the Environmental Management System at all its sites. This will assist in achieving improved compliance with relevant national and European legislation, regulatory licences and permits, industry best practice and client requirements. It will also improve the control of contractors, materials and waste management, energy management and emission control. Overall its development reflects greater environmental awareness, understanding of EMS and facility operations, records and communications and in the main concentrates on reduce environmental liability.

7.2.1 Schedule of Objectives 2008

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

7.2.2 Schedule of Objectives 2009

A schedule of targets and objectives for 2009 has been set by the management of the facility. These objectives are outlined in Table 7.2.

Table 7.1: Schedule of Objective and Targets 2008

No	Objective	Target	Responsibility	Progress
1	Minimise odours at the facility	Monitor odour daily.	Facility Manager	Ongoing
2	Prevent Litter being deposited beyond the site perimeter.	Ensure litter is removed at the end of each working day.	Facility Manager	Ongoing
3	Develop the Environmental Management System	Maintain documentation for EMS and implement on site	Environmental Department/Facility Manager	Not Complete
		Update Manual and Procedures when required		
4	Environmental Monitoring	Ensure monitoring results comply with licence limits & investigate any exceedances of emission limit values (ELV's)	Facility Manager	Complete
5	Reduce the electricity/energy usage at the facility.	Introduce Energy Saving Initiatives & Policies	Facility Manager	Energy Audit carried out in Q2 2008

Table 7.2: Schedule of Objective and Targets 2009

No	Objective	Target	Responsibility	Timescale
1	Minimise odours at the facility	Monitor odour daily.	Facility Manager	Ongoing
2	Prevent Litter being deposited beyond the site perimeter.	Ensure litter is removed at the end of each working day.	Facility Manager	Ongoing
3	Develop the Environmental Management System	Submit a proposal for the EMS to the Agency for its approval. Combine the existing elements of the EMS into a documented Environmental Management Plan for the facility	Environmental Department/Facility Manager	Q2 2009
4	Reduce the electricity/energy usage at the facility.	Implement recommendations of the Energy Audit report. Introduce Energy Saving Initiatives & Policies	Facility Manager	Q3 2009

7.3 Communications Programme

Condition 2.2.2.7 requires the establishment of a 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 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 Policy,
- Waste Licence,
- Licence Application and Review documentation,
- Monitoring Records,
- Complaints File,
- EPA Correspondence File.

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

Visits to the site should be arranged in advance by ringing the Facility Manager or Supervisor at 1890 600 900.

7.4 Nuisance Control

Condition 11.4 of the Waste Licence requires the maintenance of a record of the programme for the control and eradication of vermin and fly infestations at the facility. Greenstar have contracted Ecolab Ltd to carry out vermin inspections at the facility. Ecolab visit the facility monthly and inspect for vermin and inspect and maintain the 9 bait boxes and 4 mice boxes on the site. The facility has not had any problem with fly infestations, but should a problem occur, this can be dealt with by Ecolab on a call out basis.

7.5 Water Demand

The only water used on the site is for sanitary purposes in the toilets (2 No. staff), the canteen and occasionally for the odour suppression system. The odour suppression system consists of five roof mounted nozzles which spray a fine mist over the MSW storage area when MSW is brought to the facility. The volume of odour suppressants used in 2008 was 11 litres. The volume of water used is not quantifiable at this time, but is very small.

No water is used in the process, small quantities of water are used in the odour suppression system but majority of the spray is absorbed by the waste and a significant discharge is not generated. Storm water is generated by rainfall on the roof of the process building and rainfall on the open paved areas of the site. This run-off is stored in a holding tank until it is tankered off site. Since the 21st December 2006 the contents of the septic tank have been pumped into the holding tank and tankered off-site. In 2008 74,000 litres of waste water was removed off site.

7.6 Waste Generated On-site

The facility is manned by two full-time staff and therefore does not generate a large amount of canteen or office waste. All waste generated is source separated and removed off site for recycling or disposal.

7.7 Pollution Emission Register

The Pollution Emission Register (PER) has been replaced by the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006. A copy of the information submitted to the Agency via the web-based data reporting system is included in Appendix 3.

7.8 Financial Provision & Measures to Minimise Potential Environmental Damage

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

APPENDIX 1

Monitoring Results

GROUNDWATER MONITORING RESULTS

Parameter	Units	MW1
pH	pH Units	6.3
Conductivity	mS/cm	3.93
Temperature	°C	11.3
Ammoniacal Nitrogen	mg/l	<0.3
Chloride	mg/l	1160
Potassium	mg/l	5.6
Sodium	mg/l	797
Mercury	mg/l	<0.0001
Arsenic	mg/l	<0.001
Boron	mg/l	<0.3
Cadmium	mg/l	0.0007
Chromium	mg/l	<0.005
Copper	mg/l	<0.005
Lead	mg/l	<0.005
Nickel	mg/l	<0.005
Selenium	mg/l	0.004
Zinc	mg/l	0.023
TOC	mg/l	1
Fluoride	mg/l	<0.1
Sulphate	mg/l	253
ortho Phosphate	mg/l	<0.1
Nitrate	mg/l	9.3
Nitrite	mg/l	<0.33
TON	mg/l	2.1
Dissolved Oxygen	mg/l	1.4
Total Cyanide	mg/l	<0.1
Total Alkalinity	mg/l	79.5
Total Phenols	mg/l	<0.1
Total Solids	mg/l	2510
VOC	µg/l	<2.0
SVOC	µg/l	<10.0
Faecal Coliforms	cfu/100ml	0
Total Coliforms	cfu/100ml	7

WASTEWATER MONITORING RESULTS

Parameter	Units	May '08	Aug '08	Nov '08
COD	mg/l	129	300	63
Total Ammonia	mg/l	2.92	4.1	1.5
Chloride	mg/l	100	26	33
Mercury	mg/l	<0.0001	-	<0.00005
Arsenic	µg/l	1	-	1
Cadmium	mg/l	<0.0005	-	<0.0004
Chromium	mg/l	<0.005	-	<0.001
Copper	mg/l	<0.005	-	<0.001
Nickel	mg/l	<0.005	-	0.004
Selenium	mg/l	0.002	-	<0.001
Zinc	mg/l	0.008	-	0.012
Toluene	µg/l	14.2	-	35
4-Methylphenol	µg/l	170	-	<1

NOISE RESULTS

Station	Time	LAeq 30 min dB	LA10 30 min dB	LA90 30 min dB	Noise audible
N1	1251- 1321	68	69	38	No Greenstar emissions. Noise dominated by local traffic. Road works plant audible 100 m NE. Birdsong. Lawnmower audible at house to E.
N2	1144- 1214	61	61	51	Noise environment dominated by several sources across commercial park: lawnmower used in onsite grass cutting, generator in construction area of park, frequent vehicle movements around park. 50 Hz tone from generator. No emissions audible from Greenstar facility apart from sporadic vehicle movements through entrance.
N3	1217- 1247	52	53	43	Front end loader at Greenstar facility audible. Other onsite sources: radio, loader reversing alarm and vehicles through entrance. Generator in construction zone of adjacent commercial park audible continuously in background due to building reflections. Frequent vehicle movements throughout commercial park audible.

APPENDIX 2

Procedures Index

DOCUMENT TYPE		
TITLE	Complete Procedures list – Gorey	

This document is issued and controlled by the Environmental Department. This is a controlled document subject to change at any time and therefore, should not be copied. Only signed, authorised copies may be issued as working documents.

Revision	Description	Issued By	Approved	Date
6	Add SOP 077	OG	MG	19/12/06
7	Update document	OG	MD	23/11/07
8	Update list of documents	OG / SB	MD	03/03/08


Ref	Procedure	Issue No.	Date
	ISO standard procedures		
SOP 001	Document control	3	25/07/06
SOP 002	Management Review	2	17/07/03
SOP 003	Environmental Aspects	1	16/07/03
SOP 004	Objectives & Targets, Environmental Management Programme	2	16/07/03
SOP 005	Environmental Legislation	3	01/02/05
SOP 006	Environmental Management System Audit	3	04/06/06
SOP 007	Environmental Complaints	3	03/03/08
SOP 008	Non-Conformance & Corrective action	1	15/09/03
SOP 009	Environmental Training	3	03/03/08
SOP 010	Communications	2	15/09/03
SOP 011	Records	3	11/04/06
SOP 012	Emergency Response Procedure	6	20/04/07
SOP 012e	Emergency Response Procedure (Environmental Emergency)	0	20/01/08
SOP 013	Environmental Monitoring & Reporting/Emissions Management	2	15/09/03
	Operating Procedures-all facilities		
SOP 014	Facility Inspection	2	18/07/03
SOP 015	Incident Recording and Reporting	3	12/05/06
SOP 016	Waste Management Facility /Collector approval	3	02/12/03
SOP 017	Maintenance	2	24/11/03
SOP 018	Unacceptable Waste	5	13/09/07
SOP 019	Nuisance Management	2	21/07/03
SOP 020	Raw materials/Resource control and usage	2	15/09/03
SOP 021	Permits to work	3	03/03/08
SOP 023	Operation of Forklift	2	30/07/03
	Operating Procedures – Transfer only		
SOP 024	Customer Enquiries	2	05/01/04
SOP 025	Control of Visitors and Contractors	1	06/08/03
SOP 026	Vehicle Movements	3	26/03/08
SOP 027	Load Receipt and Acceptance Route	3	16/09/03
SOP 028	Inspection and Testing of Waste	2	21/07/07
SOP 029	Processing, Recovery, Storage and Transfer of Non-hazardous waste and recyclables	2	16/09/03
	Operating Procedures		
SOP 046	Operation of Trommel	3	27/11/07

DOCUMENT NUMBER	SOP List	ISSUE DATE	19/12/06	REVISION NUMBER	8	PAGE 1 of 2	ISSUED BY	E M	AUTHORISED BY	M G
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DOCUMENT TYPE		
TITLE	Complete Procedures list – Gorey	

Ref	Procedure	Issue No.	Date
	Other		
SOP 070	Addition of Vehicles to Collection Permit	1	26/03/08
SOP 071	Accident Incident Procedure	2	18/04/07
SOP 078	Waste Oil	1	06/04/07
SOP 079	Skip Collection Procedure	2	26/03/08

DOCUMENT NUMBER	SOP List	ISSUE DATE	23/11/07	REVISION NUMBER	6	PAGE 2 of 2	ISSUED BY	O G	AUTHORISED BY	M G
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DOCUMENT TYPE	PROCEDURE	SOP 080	
TITLE	Gypsum Based Material		
Controlled Document			

1. SCOPE/OBJECTIVE

This procedure will apply to all Greenstar facilities.

The purpose of this procedure is to ensure the safe and efficient handling, rejection and/or quarantining of gypsum based material.

2. RESPONSIBILITY

The Facility Manager (FM) will implement this procedure.

The FM, Environment Manager (EM), Site Operatives (SO) and Customer Care (CC) personnel will follow this procedure.

3. DEFINITION

“Non -hazardous gypsum-based materials” typically include plaster board waste from construction and demolition sites which can often be present in general C&D waste skips. In terms of the European Waste Catalogue, separately collected gypsum based construction material is coded as 17 08 02 and source separation of this material is encouraged. Typically, however, gypsum wastes arising from works of demolition in particular may arise in general C&D waste loads. In this instance the appropriate code is 17 09 04 (mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03).

COUNCIL DECISION of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of Annex II to Directive 1999/31/EC states:

“2.2.3. Gypsum Waste;

Non hazardous gypsum-based materials should be disposed of only in landfills for non-hazardous waste in cells where no biodegradable waste is accepted”.

Mixing gypsum wastes with biodegradable wastes can lead to the evolution of hydrogen sulphide and consequently where gypsum based material is accepted at a non landfill site, this material must be segregated from the general (C&D) waste accepted.


Site Safety Statement

4. PROCEDURE

4.1. Generalities

Gypsum based material may arrive on site mixed with general Construction and Demolition (C&D) waste. Where possible and practicable, all gypsum-based products must be segregated from other types of C&D waste and stored separately in a suitable, clearly labelled, covered container pending removal off-site to a licensed or permitted facility.

DOCUMENT NUMBER	SO P 018	ISSUE DATE	08/05/08	REVISION NUMBER	6	Page 1 of 2	ISSUED BY	S B	AUTHORISED BY	M D
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DOCUMENT TYPE	PROCEDURE	SOP 080	
TITLE	Gypsum Based Material		
Controlled Document			

Where large proportions of gypsum waste are found to be contaminating skips received from a particular customer on an on-going basis, the FM must contact the Customer Account Manager to explain that further loads of this nature will not be received at the facility, giving reasons why and insisting that the customer site in question avail of separate covered storage and collection of gypsum-based waste for removal to licensed facilities.

The FM will arrange for the transport and disposal off-site of segregated gypsum based material by an approved third party specialist contractor (Ref. SOP 016, and GS028).

This material will only be sent to a fully approved (licensed or permitted) facility.

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APPENDIX 3

European Pollutant Release and Transfer Register

AER Returns Worksheet

Version 1.1.03

REFERENCE YEAR	2008
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1. FACILITY IDENTIFICATION

Parent Company Name	Greenstar Limited
Facility Name	Waste Recycling Centre
PRTR Identification Number	W0220
Licence Number	W0220-01

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).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
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.
3.11	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.

Address 1	Ramstown
Address 2	Gorey
Address 3	Co Wexford
Address 4	
Country	Ireland
Coordinates of Location	0.000
River Basin District	IE-South Eastern
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Suzanne Byrne
AER Returns Contact Email Address	suzanne.byrne@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	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

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

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 ?	

4.1 RELEASES TO AIR

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG-yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

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

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 this only concerns Releases from your facility

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

4.3 RELEASES TO WASTEWATER OR SEWER

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER									
POLLUTANT		METHOD			QUANTITY				
No. Annex II	Name	M/C/E	Method Used		SE-1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
			Method Code	Designation or Description	Emission Point 1				
79	Chlorides (as Cl)	C	EN ISO 17025	Calculated based on the amount of waste water removed off site.		3.922	3.922	0.0	0.0
17	Arsenic and compounds (as As)	C	EN ISO 17025	Calculated based on the amount of waste water removed off site.		0.000074	0.000074	0.0	0.0
22	Nickel and compounds (as Ni)	C	EN ISO 17025	Calculated based on the amount of waste water removed off site.		0.00000296	0.00000296	0.0	0.0
24	Zinc and compounds (as Zn)	C	EN ISO 17025	Calculated based on the amount of waste water removed off site.		0.00000074	0.00000074	0.0	0.0
73	Toluene	C	EN ISO 17025	Calculated based on the amount of waste water removed off site.		0.0018204	0.0018204	0.0	0.0
						0.0	0.0	0.0	0.0

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

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

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER									
POLLUTANT		METHOD			QUANTITY				
Pollutant No.	Name	M/C/E	Method Used		SE-1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
			Method Code	Designation or Description	Emission Point 1				
238	Ammonia (as N)	C	EN ISO 17025	Calculated based on the amount of waste water removed off site.		0.172829	0.172829	0.0	0.0
306	COD	C	EN ISO 17025	Calculated based on the amount of waste water removed off site.		12.136	12.136	0.0	0.0
						0.0	0.0	0.0	0.0

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

4.4 RELEASES TO LAND

SECTION A : PRTR POLLUTANTS

RELEASES TO LAND							
POLLUTANT		METHOD			QUANTITY		
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
						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		
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# : W0220 | Facility Name : Waste Recycling Centre | Filename : W0220_2008.xls | Return Year : 2008 |

30/03/2009 15:00

Transfer Destination	European Waste Code	Hazardous	Quantity T/Year	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Name and Licence / Permit No. of Recoverer / Disposer / Broker	Address of Recoverer / Disposer / Broker	Name and Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)	Licence / Permit No. of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	15 01 02	No	22.58	Plastic Packaging	R3	M	Weighed	Offsite in Ireland	Marwin Environmental, 926 Waste Broker Cork City Council Registry Greenstar Fassaroo, W0053-	7 Glytown Heights, Glanmire, Co. Cork		
Within the Country	15 01 06	No	1528.95	Mixed Packaging	R5	M	Weighed	Offsite in Ireland	Greenstar Fassaroo, W0053-03	Fassaroe, Bray, Co. Wicklow		
Within the Country	15 01 06	No	25.56	Mixed Packaging	R5	M	Weighed	Offsite in Ireland	Glyntown Enterprises CK (S) 329/06	Sarsfieldcourt Industrial Estate, Glanmire, Co. Cork		
Within the Country	17 01 07	No	1926.16	C&D Inert Mixed	R5	M	Weighed	Offsite in Ireland	C.R.S WP/05/24 Greenstar Fassaroo, W0053-	Montague, gorey, Co.Wexford		
Within the Country	19 12 12	No	641.51	C&I Dry Mixed	R5	M	Weighed	Offsite in Ireland	Greenstar Recycling	Fassaroe, Bray, Co. Wicklow		
Within the Country	19 12 12	No	3165.84	C&I Dry Mixed	R5	M	Weighed	Offsite in Ireland	Millennium W0053-03	Millennium Business Park, Ballycoolin, Dublin 11		
Within the Country	19 12 12	No	8.2	C&I Dry Mixed	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill W0165-01.	Coolbeg and Kilcandra, Co. Wicklow		
Within the Country	19 12 12	No	8607.34	MSW Municipal Mixed	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill W0165-01.	Coolbeg and Kilcandra, Co. Wicklow		
Within the Country	20 01 38	No	78.97	Wood	R3	M	Weighed	Offsite in Ireland	Greenstar Fassaroo, W0053-03	Fassaroe, Bray, Co. Wicklow		
Within the Country	20 01 40	No	31.72	Metal	R5	M	Weighed	Offsite in Ireland	Molloy Metal Recycling WP/000/15	Ballycarney, Enniscorthy, Co. Wexford		

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