



Tel. [021] 4321521 Fax. [021] 4321522

Waste Licence Applications, Environmental Protection Agency, Headquarters P.O. Box 3000, Johnstown Castle Estate, Co. Wexford

21<sup>st</sup> November 2007

#### **RE:** Application for a Waste Licence Greenstar Ltd. Materials Recovery and Transfer Facility at Clavass, Enniscorthy, County Wexford

Dear Sir/Madam,

On behalf of Greenstar Ltd. I enclose one original and two hard copies of the application for a waste licence for a proposed Materials Recovery & Transfer<sup>®</sup>Facility at Clavass, Enniscorthy Co. Wexford. I also enclose two CD-ROM discs containing the application in searchable pdf format. The application is accompanied by three hard copies and 16 CD-ROMS of an Environmental Impact Statement for the proposed development. The content of the electronic files is a true copy ron march owner ret of the original application form.

The application includes: -

- This cover letter, •
- This cover letter,
  Completed Application Form and Attachments,
- Environmental Impact Statement,
- Application Fee €22,000.

If you have any queries, please call me.

Yours sincerely,

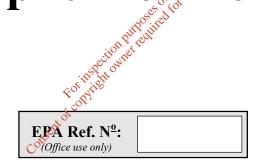
Jim O' Callaghan

0704819/JOC/MC Encs. Mr. Micheal Geary, Greenstar Ltd., c.c.

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



# Waste Licence Application Form



This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Waste Management Acts 1996 to 2003.

Environmental Protection Agency P.O.Box 5000, Johnstown Castle Estate, County Wexford Telephone: 053-60600 Fax: 053-60699



### Environmental Protection Agency Application for a Waste Licence

WASTE MANAGEMENT ACTS 1996 to 2003

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#### **ANNEX 1: STANDARD FORMS**

#### INTRODUCTION

A valid application must contain the information prescribed in the Waste Management (Licensing) Regulations 2004 (SI No. 395 of 2004). The applicant is <u>strongly</u> advised to read the *Application Guidance Notes* for Waste Licensing, available from the EPA.

The applicant must conform to the format set out in the guidance notes for applications. Each page of the completed application form must be numbered, e.g. *page 5 of 45*, etc. Also duplicated pages from the application form should be uniquely numbered, e.g. page 5(i) of 45, etc. The basic information should for the most part be supplied in the spaces given in application form and any supporting documentation should be supplied as attachments, as specified. Consistent measurement units must be used throughout.

The applicant should note that the application form has been structured so that it requires information to be presented in an order of progressive detail.

When it is found necessary, additional information may be provided on supplementary attachments which should be crearly cross referenced with the relevant sections in the main document.

While all sections in the application form may not be relevant to the activity concerned, the applicant should look searefully through all aspects of the form and provide the required information, in the greatest possible detail.

All maps/drawings/plans must be no larger than A3 size and scaled appropriately such that they are clearly begible. In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.

Information supplied in this application, including supporting documentation will be put on public display and open to inspection by any person. Should the applicant consider information to be confidential, this information should be submitted in a separate enclosure bearing the legend "In the event that this information is deemed not to be held as confidential, it must be returned to ......". In the event that information is considered to be of a confidential nature, then the nature of this information, and the reasons why it is considered confidential (with reference to the "Access to Information on the Environment" Regulations) should be stated in the Application Form, where relevant.

It should be noted that it will not be possible to process or determine the application until the required documents have been provided in sufficient detail and to a satisfactory standard.



#### CHECKLIST

Articles 12 and 13 of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004) set out the information which must, in all cases, accompany a waste licence application. In order to ensure that the application fully complies with the legal requirements of Articles 12 and 13 of the 2004 Regulations, all applicants should **complete** the following.

In each case, refer to the attachment number(s) of your application which contain(s) the information requested in the appropriate sub-article.

Article 12(1) In the case of an application for a waste licence, the application shall -

(a) give the name, address and, where applicable, any telephone number and telefax of the applicant (and, if different, the operator of the facility concerned), the address to which correspondence relating to the application should be sent and, if the applicant or operator is a body corporate, the address of its registered office or principal office,

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(b) give the name of the planning authority in whose functional area the relevant activity is of will be carried on,

LOCATION	B33 COT			
CHECKED	Applicant	$\square$	Official	

(c) in the case of a discharge of any trade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority, give the name of the sanitary authority in which the sewer is vested or by which it is controlled,

LOCATION	B4			
CHECKED	Applicant	$\boxtimes$	Official	

(d) give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the facility or premises to which the application relates,

LOCATION	B2			
CHECKED	Applicant	$\boxtimes$	Official	



(e) describe the nature of the facility or premises concerned, including the proposed capacity of the facility or premises, and in the case of application in respect of a landfill of waste, the requirements specified in Annex 1 of the Landfill Directive,

LOCATION	D			
CHECKED	Applicant	$\boxtimes$	Official	

(f) specify the class or classes of activity concerned, in accordance with the Third and Fourth Schedules of the Act, and in the case of an application in respect of the landfill of waste, specify the class of landfill in accordance with Article 4 of the Landfill Directive,

LOCATION	B7		
CHECKED	Applicant	$\boxtimes$	Official

(g) specify, by reference to the relevant European Waste Catalogue codes as presented by Commission Decision 2000/532/EC of 3 May 2000, the quantity and nature of the waste or wastes which will be treated, recovered or disposed of,

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LOCATION	HITON			
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(h) specify the raw and ancillary materials, substances, preparations, fuels and energy which will be utilised in or produced by the activity,

LOCATION	G1			
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(i) describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems and operating procedures for the activity,

LOCATION	Н			
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 (i) provide information for the purpose of enabling the Agency to make a determination in relation to the matters specified in paragraphs (a) to (g) of section 40(4) of the Act,

LOCATION	L1		
CHECKED	Applicant	$\boxtimes$	Official

(k) give particulars of the source, location, nature, composition, quantity, level and rate of emissions arising from the activity and, where relevant, the period or periods during which such emissions are made or are to be made,

LOCATION	Е			
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(1) give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit or abate such emissions,

LOCATION	F1 or instant	
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	n <sup>sent</sup> or	
	Cor	

(m) identify monitoring and sampling points and indicate proposed arrangements for the monitoring of emissions and the environmental consequences of any such emissions,

LOCATION	F2-			
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(n) describe any proposed arrangements for the prevention, minimisation and recovery of waste arising from the activity concerned,

LOCATION	H4		
CHECKED	Applicant	$\boxtimes$	Official

epa

(o) describe any proposed arrangements for the off-site treatment or disposal of solid or liquid wastes,

LOCATION	H4		
CHECKED	Applicant	$\boxtimes$	Official

(p) describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected emissions and minimise the impact on the environment of any such emission,

LOCATION	J		
CHECKED	Applicant	$\square$	Official

(q) describe the proposed measures for sethe closure, restoration, remediation or aftercare of the facility concerned, after the cessation of the activity in question,

LOCATION	K urpourse	
CHECKED	Applicant	Official
	FOIDSPECTON	

(r) in the case of an application in respect of the landfilling of waste, give particulars of :-

(i) such financial provision as is proposed to be made by the applicant, having regard to the provisions of Articles (7)(i) and (8)(a)(iv) of the Landfill Directive and section 53(1) of the Act, and

LOCATION	NOT APPLICABLE	
CHECKED	Applicant	Official

(ii) such charges as are proposed or made, having regard to the requirements of section 53A of the Act,

LOCATION	NOT APPLICABLE	
CHECKED	Applicant 🛛	Official



(s) state whether the activity is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 (S.I. No. 476 of 2000) apply,

LOCATION	B8		
CHECKED	Applicant	$\boxtimes$	Official

(t) in the case of an activity which gives rise or could give rise to an emission into an aquifer containing the List I and II substances specified in the Annex to Council Directive 80/68/EEC of 17 December 1979, describe the existing or proposed arrangements necessary to give effect to Articles 3,4,5,6,7,8,9 and 10 of the aforementioned Council Directive,

LOCATION	E4		<u>ي</u> و.	
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(u) include a non-technical summary of information provided in relation to the matters specified in paragraphs (a) to (t) of this sub-article,

<u>_</u>	, 08,		
LOCATION	A		
CHECKED	Applicant	$\boxtimes$	Official

- Article 12(4) Without prejudice to Article 13(1) and (2), an application for a licence shall be accompanied by: -
  - (a) a copy of the relevant page of the newspaper(s) in which the notice in accordance with article 6 has been published,

LOCATION	B6		
CHECKED	Applicant	$\bowtie$	Official

(b) a copy of the text of the notice or notices erected or fixed in accordance with article 7,

LOCATION	B6		
CHECKED	Applicant	$\boxtimes$	Official



(c) where appropriate, a copy of the notice given to a local planning under article 9,

LOCATION	B6			
CHECKED	Applicant	$\boxtimes$	Official	

- (d) a copy of such plans (appropriately scaled and no larger than A3 size), including a site plan or plans and location map or maps, and such other particulars, reports and supporting documentation as are necessary to identify and describe, as appropriate: -
  - (i) the position of the notice in accordance with article 7,

LOCATION	B2			
CHECKED	Applicant	$\square$	Official	
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(ii) the point or points from which emissions are made or are to be made, and

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(iii) the point, or points at which monitoring and sampling are undertaken or are to be undertaken,

	ft <sup>e</sup>			
LOCATION	F			
CHECKED	Applicant	$\boxtimes$	Official	]

(e) such fee as is appropriate having regard to the provisions of articles 40 and 41.

INCLUDED Y/N	Y		
CHECKED	Applicant	$\boxtimes$	Official



Article 12(5)(a) & (b) An application shall comprise 1 signed original of the application and 2 copies in hardcopy format plus 2 copies of all files in electronic searchable PDF format on CD-Rom.

HARDCOPIES PROVIDED Y/N	Y			
CHECKED	Applicant	$\square$	Official	
	rippneune		Omenai	

CD OF PDF FILES PROVIDED? Y/N	Y		
CHECKED	Applicant	$\boxtimes$	Official

Article 13 Where a development requires an Environmental Impact Assessment to be carried out, 1 signed original and 2 copies in hardcopy format of the environmental impact statement plus 16 copies in electronic searchable PDF format on CD-ROM should accompany this application.

	Sold t			
EIA REQUIRED ? Y/N	Y purpequite			
CHECKED	Applicant	$\boxtimes$	Official	
3 HARD COPIES OF EIS	ALCON.			
CHECKED 500	Applicant	$\boxtimes$	Official	
16 CD versions of EAS,	Y			
as PDF files, Con				
<b>PROVIDED?</b> Y/N				
CHECKED	Applicant	$\square$	Official	



#### PROCEDURES

#### It is recommended that pre-application consultations with the Agency are undertaken before a formal submission of the waste licence application.

The procedure for making and processing of applications for waste licences, and for the processing of reviews of such licences, appear in the Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) and are summarised below. The application fees that shall accompany an application are listed in the Second Schedule to the Regulations.

Prior to submitting an application the applicant must publish in a local newspaper, and erect on site, a notice of intention to apply. An applicant, other than a local authority in whose functional area the development is located, must also notify the Local Planning Authority, in writing, of their intention to apply.

An application for a licence must be submitted on the appropriate form (available from the Agency) with the correct fee, and should contain relevant supporting documentation as attachments. The application should be based on responses to the form, supporting written text and the appropriate use of tables and drawings. Where point source emissions occur, a system of unique reference numbers should be used to denote each emission point. These should be simple, logical, and traceable throughout the application.

The application form is divided into a number of sections of related information. The purpose of these divisions being to facilitate both the applicant and the Agency in the provision of the information and its assessment. Attachments should be clearly numbered, titled and paginated and must contain the required information as set out in the application form. Additional attachments may be included to supply any further information supporting the application. Any references made should be supported by a bibliography.

All questions should be answered. No waste management facility is exactly the same and hence each application will require different information. It is therefore possible that some of the sections of this application form may not be relevant to the activity concerned. Where information is requested in the application form, which is not relevant to the application, the words "not applicable" should be clearly written on the form. The abbreviation "N/A" should not be used.

Additional information may need to be submitted beyond that which is explicitly requested on this form. Any references made should be supported by a bibliography. The Agency may request further information if it considers that its provision is material to the assessment of the application. Advice should be sought from the Agency where there is doubt about the type of information required or the level of detail.

Information supplied in this application, including supporting documentation will be put on public display and be open to inspection by any person. **Should the applicant** 



consider information to be confidential, then the nature of this information, and the reasons why it is considered confidential should be clearly stated in an attachment to the Application Form. This information should be submitted in a separate enclosure bearing the legend "In the event that this information is deemed not to be held as confidential, it must be returned to (representative of the applicant)".

Applicants should be aware that a contravention of the conditions of a waste licence is an offence under Section 39 of the Waste Management Acts 1996 to 2003.

The provision of information in an application for a waste licence which is false or misleading is an offence under Section 45 of the Waste Management Acts 1996 to 2003.

Note: <u>Drawings</u>. The following guidelines are included to assist applicants:

- All drawings submitted should be titled and dated.
- They should have a <u>unique reference number</u> and should be signed by a clearly identifiable person.
- They should indicate a scale and the <u>direction of north</u>
- All drawings should, generally, be to a scale of between 1:20 to 1:500, depending upon the degree of detail needed to be shown and the size of the facility. Drawings delineating the boundary can be to a smaller scale of between 1:1000 to 1:10560, but must clearly and accurately present the required level of detail. Drawings showing the site location can be to a scale of between 1:50 000 to 1:126 720. All drawings should, however, be A3 or less and of an appropriate scale such that they are clearly legible. Provide legends on all drawings and maps as appropriate.

The provision of information in an application for a waste licence, which is false or misleading, is an offence under s45 of the Acts.



#### SECTION A NON-TECHNICAL SUMMARY

A Non-Technical Summary is to be submitted. The summary should include information on those aspects outlined in the Guidance Note and must comply with the requirements of Article 12 (1) (u) of the Waste Management (Licensing) Regulations, S.I. 395 of 2004.

The Non-Technical Summary should form Attachment A.1.

#### Attachment A.1. Included

Consent of copyright owner required for any other use.

#### SECTION B GENERAL

<b>B.</b> 1 Applic	B.1 Applicant's Details				
Name*:	Greenstar Ltd				
Address:	Burton Court				
	Burton Hall Road				
	Sandyford				
	Dublin 18				
Tel:					
Fax:					
e-mail:					

\* This should be the name of the applicant which is current on the date this Waste Licence Application is lodged with the Agency. It should be the name of the legal entity (which can be a limited company or a sole trader). A trading/business name is not acceptable.

#### Name and Address for Correspondence

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.

Name:	Mr Micheal Geary
Address:	Unit 6, Ballyogan Business Park,
	Ballyogan Road, purgetite
	Sandyford,
	Dublin 18
Tel:	FOLVINGE
Fax:	A COV
e-mail:	cente
-	Corr

Address of registered or principal office of Body Corporate (if applicable)

Address:	Greenstar Ltd
	Burton Court
	Burton Hall Road
	Sandyford
Tel:	Dublin 18
Fax:	
e-mail:	

If the applicant is a body corporate, the following information must be attached as Attachment B1:

- a) a Certified Copy of the Certificate of Incorporation or Memorandum and Article of Association;
- b) the Company's Registration Number from the Companies Registry Office; and
- c) a list of the Company Directors.

#### **Attachment B1 Included**



State the interest of the applicant in the land which is subject to the application. The applicant is (please check):

Landowner	$\square$
Lessee	
<b>Prospective Purchaser</b>	
Other (please specify)	

Name and address of all occupiers of the land on which the Activity is situated (if different from applicant named above).

Name:	NOT APPLICABLE
Address:	
Tel:	
Tel: Fax:	
e-mail:	<i>Q</i> .*

Name and address of the current<sup>\*</sup> owner(s) and lessees of the land, buildings and ancillary plant on which the activity is or will be situated (if different from applicant named above). An appropriately scaled drawing( $\leq 43$ ) showing the above details should be included in Attachment B1.

Name:	NOT APPLICABLE	
Address:	IN SO AL ON	
	FODULIE	
	of Cov	_
	a sent	_
Tel:	Cor	_
Fax:		_

#### e-mail:

\*Current at the time the application is submitted

#### **B.2** Location of Activity

Clavass
Enniscorthy
County Wexford

Tel:		
Fax:		
e-mail:		
¥T 1 1 4 1 1		

\* Include any townland



National Grid Reference	E298250 N143520.
(8 digit 4E,4N)	

Location maps (<A3), appropriately scaled, with legible grid references should be enclosed inAttachment **B.2.** The site boundary must be outlined on the map in colour.

#### **B2 INCLUDED**

#### **B.3** Planning Authority

Give the name of the planning authority in whose functional area the activity is or will be carried out.

Name:	Wexford County Council
Address:	County Hall,
	Spawell Road,
	Wexford.
Tel:	053 9176500
Fax:	053 9165054

Has the Planning Authority received written notification from the applicant of the application to The Environmental Protection Agency for a Waste Licence under Article 9 of the Waste Management ours (Licensing) Regulations?

Planning Authority notified	Yes 🖂
on puredu	No 🗌
xx all all a	

Planning Permission relating to this application consent of copyri

has been obtained	
is being processed	
is not yet applied for	$\square$
is not required	

Local Authority Planning	
File Reference №:	

Attachment B.3 should contain *the most recent* planning permission, including a copy of *all* conditions, and the required copies of any EIS should also be enclosed. For existing activities, Attachment B.3 should also contain copies of the most recent waste licence and any permits in force at the time of submission. Where planning permission is not required for the development, provide reasons, relevant correspondence, etc.

#### **B3 EIS included**



#### **B.4** Sanitary Authority

In the case of a discharge of anytrade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority or other body, give the name of the sanitary authority in which the sewer is vested or by which it is controlled and the waste water treatment pant (if any) to which the sewer discharges.

Name:	Wexford County Council
Address:	County Hall,
	Spawell Road,
	Wexford.
Tel:	053 9176500
Fax:	053 9165054

The applicant must enclose, as Attachment B.4, a copy of any effluent discharge licence and or agreement between the applicant and the body with responsibility for the sewer.

#### **B.5** Other Authorities

The applicant should tick the appropriate box below to identify whether the activity is located within the Shannon Free Airport Development Company (SFADCo.) area. only, any other use.

#### Within SFADCo. Area Yes No 🖂

The applicant should indicate the **Health Board Region** where the activity is or will be located.

	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Name:	HSE – South Eastern Area
Address:	Oak House,
	Millennium Park 🕫
	Naas, Co. Kildare
Tel:	+353 (0)45 880400
Fax:	Cor

#### **B.6** Notices and Advertisements

Articles 6 and 7 of the Waste Management (Licensing) Regulations 2004 requires all applicants to advertise the application in a newspaper and by way of a site notice. SeeGuidance Note.

Attachment B.6 should contain a copy of the site notice and an appropriately scaled drawing ( $\leq A3$ ) showing its location on site. The original application must include the complete newspaper in which the advertisement was placed. The relevant page of the newspaper containing the advertisement should be included with the original and three copies of the application.

#### **Attachment B.6 Included**



#### **B.7** Type of Waste Activity, Tonnages & Fees

**B.7.1** Specify the class or classes of activity in Table B.7.1, in accordance with the Third Schedule or Fourth Schedule to the Waste Management Acts 1996 to 2003, to which the application relates (check the relevant box(es) and mark the principal activity with a 'P').

Attachment B.7 should identify the principle activity and include a brief technical description of each of the other activities specified. There can only be one principal activity.

## TABLE B.7.1 THIRD AND FOURTH SCHEDULES OF THE WASTE MANAGEMENTACTS 1996 TO 2003

Waste Management Acts 1996 to 2003					
THIRD SCHEDULE Waste Disposal Activities	Y/N	FOURTH SCHEDULE	Y/N		
1. Deposit on, in or under land (including landfill).		1. Solvent reclamation or regeneration.			
2. Land treatment, including biodegradation of liquid or sludge discards in soils.		2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes).	Р		
3. Deep injection of the soil, including injection of pumpable discards into wells, salt domes or naturally occurring repositories.	Purpose	Recycling or reclamation of metals and metal compounds.	Y		
4. Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.	Ter	4. Recycling or reclamation of other inorganic materials.	Y		
5. Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.		5. Regeneration of acids or bases.			
6. Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule.		6. Recovery of components used for pollution abatement.			
7. Physico-chemical treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 8 to 10 of this Schedule (including evaporation, drying and calcination).		7. Recovery of components from catalysts.			
8. Incineration on land or at sea.		8. Oil re-refining or other re-uses of oil.			
9. Permanent storage, including emplacement of containers in a mine.		<ol> <li>Use of any waste principally as a fuel or other means to generate energy.</li> </ol>			
10. Release of waste into a water body (including a seabed insertion).		10. The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system.			
11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.	Y	11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.			
12. Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.	Y	12. Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.			
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.	Y	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.	Y		



#### TABLE B.7.2 MAXIMUM ANNUAL TONNAGE

The maximum annual tonnage of waste to be handled at the site should be indicated and the year to which the quantity relates indicated.

Maximum Annual Tonnage (tpa)	90,000
Year	2014

#### **B.7.3 FEES**

State each class of activity for which a fee is being submitted as per Part I of the Second Schedule of the Waste Management (Licensing) Regulations 2004, S.I. No. 395 of 2004. Note: two fees are required if disposal and recovery are to occur.

Waste Activity	Fee (in €)
Disposal of Waste (appropriate	3.2 - €12,000
disposal activity $1.1 - 3.3$ )	
Recovery of Waste (4)	€10,000
	<sup>0</sup> '

# TABLE B.7.4 (FOR A LANDFILL APPLICATIONS NOT APPLICABLE

STATE WHICH OF THE FOLLOWING IS RELEWANT TO THE CURRENT APPLICATION.

(a) landfill for hazardous waste	
(b) landfill for non-hazardous waste	
(c) landfill for inert waste	
C°.	

#### **B.8 SEVESO II DIRECTIVE**

State whether the activity is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous substances) Regulations, 2000 (S.I. No. 476 of 2000), apply.

<b>Regulations Apply</b>	Yes	No 🖂

If yes, **Attachment B.8** should include the relevant details. Supporting information, as well as copies of any Hazardous Operation Studies (HAZOP) carried out for the site, should also be included in the attachment.



#### SECTION C MANAGEMENT OF THE FACILITY

Advice on completing this section is provided in the Guidance Note.

#### C.1 Technical Competence and Site Management

This information should form Attachment C 1.

Details of the applicant's experience and qualifications, along with that of other relevant employees, should be summarised as shown below. Statements of duties, responsibilities, experience and qualifications should be submitted for each position named below. Additional information, including the management structure and an organisational chart, should be included in **Attachment C 1**.

#### **Attachment C1 Included**

Name	Position	Duties and Responsibilities	Experience /Qualifications
		other use	
		one only and	

#### Additional Information provided in Aftachment C1.

#### C.2 Environmental Management System

Attachment C 2 should contain the Environmental Management System (EMS) details required.

#### C.3 Hours of Operation

Attachment C 3 should contain details of hours of operation for the waste facility, civic waste facilities and other facilities.

- (a) Proposed hours of operation.
- (b) Proposed hours of waste acceptance/handling.
- (c) Proposed hours of any construction and development works at the facility and timeframes (required for landfill facilities).
- (d) Any other relevant hours of operation expected.

#### C.4 Conditioning Plan

Address as **Attachment C 4**, in the case of a LANDFILL Application, and only for the review of a Landfill Waste Licence.



#### SECTION D INFRASTRUCTURE & OPERATION

#### **D.1** Infrastructure

Complete the following table detailing the site infrastructure. Attachment D 1 should contain the appropriate documentation. Information provided should follow the sequence, and use the headings, established in Table D.1. Additional advice on completing this section is provided in the application *Guidance Note*.

Table D.1. Infrastructure		y/n	Comments
D.1.a	Site security arrangements including gates and fencing	Y	
D.1.b	Designs for site roads	Y	
D.1.c	Design of hardstanding areas	Y	
D.1.d	Plant	Y	
D.1.e	Wheel-wash	Y	
D.1.f	Laboratory facilities	N	
D.1.g	Laboratory facilities     000000000000000000000000000000000000	Y	
D.1.h	Waste quarantine areas	Y	
D.1.i	Waste inspection areas	Y	
D.1.j	Traffic control	Y	
D.1.k	Sewerage and surface water drainage infrastructure	Y	
D.1.l	All other services	Y	
D.1.m	Plant sheds, garages and equipment compound	N	
D.1.n	Site accommodation	Y	
D.1.0	A fire control system, including water supply	Y	
D.1.p	Civic amenity facilities	N	
D.1.q	Any other waste recovery infrastructure	N	
D.1.r	Composting infrastructure	N	
D.1.s	Construction and Demolition waste infrastructure	Y	
D.1.t	Incineration infrastructure (if applicable).	N	
	Provide information to fulfil Article 4 (2) & (3) of the Incineration of Waste Directive		
D.1.u	Any other infrastructure	Ν	



#### D.2 Facility Operation

In **Attachment D 2** describe the plant, methods, processes and operations of the waste facility, as required by the *Guidance Note*.

Attachment included		no	not annlicable
Attachment included	yes 🖂	no	not applicable

### LANDFILLS NOT APPLICABLE

The following Sections D3 to D7 should only be completed for Landfill Applications. Reference should be made to the Agency landfill manual 'Landfill Site Design (2000)' when completing this section.

#### D.3 Liner System

Complete the following table regarding the liner system to be used for the landfill/landfill extension and detail the information requested as Attachment D.3. *Items D3c to D3g should only be completed <u>for immediate projects only</u> (<i>ie Years 1 & 2*). A schedule of Liner construction activities for the medium to long term need only be listed in item D3a below, since Condition 3 of any licences granted will provide reporting requirements for any future projects.

#### TABLE D.3 LINER SYSTEM NOT APPLICABLE

	in the the	y/n	Comments
D.3.a	Provide information to fulfil Annex 1 of the Landfill Directive one		
D.3.b	What type of liner system is specified?		
D.3.c	Has a Quality Control Plan been specified?		
D.3.d	Has a Quality Assurance Plan been specified?		
D.3.e	Have independent, third-party supervision, testing and controls been specified?		
D.3.f	Have basal gradients for all cells and access ramps to the cells been designed?		
D.3.g	Has a leak detection survey been specified?		

#### **D.4** Leachate Management

Complete the following table detailing leachate management arrangements. Further information should be included in **Attachment D.4**.

		y/n	Comments
<b>D.4.</b> a	Is there a Leachate Management Plan?		
D.4.b	Have annual quantities of leachate been calculated?		
D.4.c	Has the total quantity of leachate been calculated?		
D.4.d	Have the size of the cells been specified taking account of the water balance calculations?		
D.4.e	Has a leachate collection system been specified?		
D.4.f	Has a leachate storage system been specified?		
D.4.g	Has a system for monitoring the level of leachate in the waste been designed?		
D.4.h	Is leachate recirculation proposed/practised?		
D.4.i	Has leachate treatment on-site been specified?		
D.4.j	Has leachate removal been specified?		

#### TABLE D.4.1 LEACHATE MANAGEMENT ARRANGEMENTS NOT APPLICABLE

# D 5 Landfill Gas Management NOT APPLICABLE

All landfill sites should have suitable arrangements for the management of landfill gas. Attachment D.5 should contain the appropriate documentation. Information provided should follow the sequence, and use the headings, established in Table D.5. *Items D5g to D5m should only be completed <u>for immediate or current gas</u> <u>collection projects only</u> (<i>ie Years 1 & 2*). A schedule of gas management aspects for the medium to long term need only be listed in item D5f below, since Condition 3 of any proposed decision/licence will provide reporting requirements for any future projects.

### Table D.5. Landfill Gas Management NOT APPLICABLE

	.5. Lanunn Gas Management NOT AFFL	v/n	Comments
		y/11	
D.5a	Is there a Landfill Gas Management Plan?		
	Provide estimates of the volumes of landfill gas which will be produced by the waste disposed of in the site for the next 20 years, and compare to the EPER list for methane:		
D.5b	Is there a passive venting system?		
D.5c	Does the passive system cover all of the filled area?		
D.5d	Have gas alarm systems been installed in the site buildings?		
D.5e	Have measures been installed to prevent landfill gas migration (e.g. barriers)?	Nothern	ç.
D.5f	Has a time-scale been proposed for the installation of landfill gas infrastructure?		
D.5g	Is gas flaring undertaken at the site?		
D.5h	Is there an active (i.e., pumped) landfill gas extraction system?		
D.5i	Does the active system cover all of the filled area?		
D.5j	Is landfill gas used to generate energy at the site?		
D.5k	Have emissions from the flarestack and utilisation plant been assessed for source, composition, quantity and level and rate?		
D.51	Has a maintenance programme for the control system been specified?		
D.5m	Has a condensate removal system been designed?		



#### **D.6** Capping System – NOT APPLICABLE

Complete the following table detailing the design of the capping system. Attachment D.6 should contain the appropriate documentation. *Items D6e to D6k should be completed <u>for immediate projects only</u> (<i>ie Years 1 & 2*). Condition 10 of any proposed decision/licence will provide reporting requirements for capping requirements beyond this timeframe.

#### Table D.6 Capping System

		y/n	Comments
D.6a	Has the daily cover been specified?		
D.6b	Has the intermediate cover been specified?		
D.6c	Has the temporary capping been specified?		
D.6d	does it meet the requirements of the Landfill	et use.	
D.6e	Directive Annex 1 (3.3)?		
D.6f	Have all capping materials been specified?		
D.6g	Has a Method Statement for construction been produced?		
D.6h	Has a Quality Control Plan been produced?		
D.6i	Has a Quality Assurance Plan been produced?		
D.6j	Has a programme for monitoring landfill stability been developed?		
D.6k	Has a programme for monitoring landfill settlement been developed?		



#### SECTION E EMISSIONS

Give particulars of the source, location, nature, composition, quantity, level and rate of emissions arising from the activity and, where relevant, the period or periods during which such emissions are made or are to be made.

The applicant should address in particular any emission point where the substances listed in the Schedule of S.I. 394 of 2004 are emitted.

#### E.1 Emissions to Atmosphere

Details of all point emissions to atmosphere should be supplied. Table E.1.(i) (for Landfill Gas Flare emissions) must be completed for all landfills with a flare. Complete Table E.1(ii) and E.1(iii) for all other main emission points, including stack sources (incinerator stacks, landfill gas utilisation plants, air handling unit emissions etc.). Complete Table E.1(iv) for minor/fugitive/ground emission points.

#### E.2 Emissions to Surface Waters

Attachment E.2 Tables E.2(i) and E.2(ii) should be completed where relevant.

#### E.3 Emissions to Sewer

Attachment E.3 Tables E.3(i) and E.3(ii) should be completed, where relevant. ownerrec

#### E.4 Emissions to Groundwater

Describe the existing or proposed arrangements necessary to give effect to Articles 3,4,5,6, and 7 of Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution by certain dangerous substances.

Table E.4(i) should be completed, as relevant, for each source.

Supporting information should form Attachment E.4

#### E.5 Noise Emissions

Give particulars of the source, location, nature, level, and theperiod or periods during which the noise emissions are made or are to be made.

Table E.5(i) should be completed, as relevant, for each source.

Supporting information should form Attachment E.5



#### E.6 Environmental Nuisances

**Attachment E.6** should contain the appropriate documentation. Information provided should follow the sequence, and use the headings as relevant established in Table D.6. Additional advice on completing this section is provided in the *Guidance Note*.

#### TABLE E.6 ENVIRONMENTAL NUISANCES

	i			
Bird Control	Control method specified	yes 🖂	no	not applicable
	Attachment included	yes 🖂	no	not applicable
Dust Control	Control method specified	yes 🖂	no	not applicable
	Attachment included	yes 🖂	no	not applicable
Fire Control	Control method specified	yes 🖂	no	not applicable
	Attachment included	yes 🖂	no	not applicable
Litter Control	Control method specified	yes 🖂	no	not applicable
	Attachment included	yes Afer	no	not applicable
Traffic Control	Control method specified	Jes dio	no	not applicable
	Attachment included	x <sup>iilt</sup> yes 🖂	no	not applicable
Vermin Control	Control method citothet specified in the context	yes 🖂	no	not applicable
	Attachment included	yes 🖂	no	not applicable
Road Cleansing	Control method specified	yes 🖂	no	not applicable
	Attachment included	yes 🖂	no	not applicable



#### **SECTION F CONTROL & MONITORING**

#### F.1: Treatment, Abatement and Control Systems

Describe the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation/facility. Details of treatment/abatement systems (air and effluent emissions) should be included, together with appropriately scaled schematics ( $\leq A3$ ) as appropriate.

For each Emission Point identified complete Table F.1 of the Annex, and include detailed descriptions and appropriately scaled schematics ( $\leq A3$ ) of all abatement systems.

Attachment F.1 should contain any supporting information.

#### F.2- F. 9. Monitoring and Sampling Points

Programmes for environmental monitoring should be submitted as part of the application. These programmes should be provided as Attachments F.2 to F.6 and meet the advice published by the Agency in the relevant BATNote. For Landfills the additional Attachments F.7 to F.8 should be completed. Furthermore for a landfill application the applicant must refer to the Agency Landfill Monitoring Manual (2003) for further details on monitoring requirements for proposed facilities.

Include details of monitoring/sampling locations and methods.

#### F.2 Air

#### - to include Dust, Odour

Include details of monitoring/sampling locations and methods.								
F.2 Air - to include Dust, Odour								
Monitoring Arrangements specified	yes 🖂	no	not applicable					
Monitoring points identified, (plus	yes 🖂	no	not applicable					
12-figure grid references)								
Attachment included	yes 🖂	no	not applicable					

#### F.3 Surface Water

Monitoring of surface water shall be carried out at not less than two points, one upstream from the waste facility and one downstream.

Monitoring Arrangements specified	yes	no	not applicable🛛
Monitoring points identified, (plus	yes 🗌	no	not applicable🖂
12-figure grid references)			
Attachment included	yes	no	not applicable🖂



#### F.4 Sewer Discharge

Monitoring of sewer discharge shall be carried out at the point specified by the local authority/Agency.

Monitoring Arrangements specified	yes 🖂	no	not applicable
Monitoring points identified, (plus	yes 🖂	no	not applicable
12-figure grid references)			
Attachment included	yes 🖂	no	not applicable

#### F.5 Groundwater

Groundwater monitoring is required at all landfill facilities; and certain other waste facilities depending on waste activities and the underlying aquifer vulnerability.

Monitoring Arrangements specified	yes	no	not applicable🖂
Monitoring points identified, (plus	yes 🗌	no	not applicable🛛
12-figure grid references)			
Attachment included	yes 🗌	no	not applicable🖂

#### F.6 Noise

F.6 Noise	in a other use.	
Monitoring Arrangements specified	yes of the no	not applicable
Monitoring points identified, (plus 12-figure grid references)	yes at no	not applicable
Attachment included	yes 🖂 no	not applicable
F.7 Meteorological Data		

#### F.7 Meteorological Data

Monitoring Arrangements specified	yes	no	not applicable🖂
Monitoring points identified, (plus	yes 🗌	no	not applicable🛛
12-figure grid references)			
Attachment included	yes	no	not applicable🖂

Application for Landfills require the additional Attachments F.7 to F.8, to be completed:

**NOT APPLICABLE** 

#### F.8 Leachate

Monitoring Arrangements specified	yes	no	not applicable
Monitoring points identified, (plus	yes 🗌	no	not applicable
12-figure grid references)			
Attachment included	yes 🗌	no	not applicable



#### F.9 Landfill Gas NOT APPLICABLE

Complete each of the following tables to show whether information has been included on aspects of landfill gas monitoring. Attachment F.9 should also contain information to show whether the data given in Tables F.9.(a) and F.9(b) below represents actual or anticipated data. Complete Table F.9 as follows:

Table F.9 (a) Landfill Gas Monitoring for existing landfill gas flares / utilisation plants

Parameter	Concentration (mg/Nm <sup>3</sup> )	Proposed Frequency of Analysis	Information Included Y/N	Method of Analysis	Information Included Y/N
Inlet					
Methane (CH <sub>4</sub> ) % v/v					
Carbon dioxide (CO <sub>2</sub> ) %v/v					
Oxygen (O <sub>2</sub> ) % v/v					
Outlet					
Volumetric Flow Rate					
SO <sub>2</sub>					
Nox					
СО					
Particulates					
TA Luft Class I, II, III organics					
Hydrochloric acid			<u>ر</u> و.		
Hydrogen Fluoride			Met 115		

#### Table F.9(b) Landfill Gas Monitoring

Table F.9(b) Landfill Gas Monitoring									
Parameter	Proposed Fr of Analysis	ourpoint	Information Included Y/N	Method of Analysis	Information Included Y/N				
	Gas boreholes / vents/ wells/ perimeter locations	Facility Office							
Methane (CH <sub>4</sub> ) % v/v	No. 10	3							
Carbon Dioxide (CO <sub>2</sub> ) % v/v	at of								
Oxygen (O <sub>2</sub> ) % v/v	ORSON								
Atmospheric Pressure									
Temperature									

#### Table F.9 (c) Landfill Gas Infrastructure

Equipment	Monitoring Frequency	Information Included Y/N	Monitoring Action	Information Included Y/N
Gas Collection System				
Gas Control System				
¥				

Monitoring Arrangements specified	yes	no	not applicable
Monitoring points identified, (plus	yes 🗌	no	not applicable
12-figure grid references)			
Attachment included	yes 🗌	no	not applicable



#### SECTION G RESOURCES USE & ENERGY EFFICIENCY

#### G.1 Raw Materials, Substances, Preparations and Energy

Attachment G.1 should contain a list of all raw, product and ancillary materials, substances, preparations, fuels and energy which will be utilised in or produced by the activity. Information on any insecticides, herbicides or rat poisons etc. should also be provided with their respective data and safety sheets. The Standard Forms, provided in Annex 1, should be used in the description of these materials, substances, etc., where relevant. Additional advice on completing this section is provided in the *Guidance Note*.

Attachment	yes 🖂	no	not applicable
included			

#### G.2 Energy Efficiency

A description of the energy used in or generated by the activity must be provided in **Attachment G.2**.

	So ato	
Attachment included	yes storite no	not applicable
	COT IT BELLOWIT	
	ALOTOPY .	
	Consent	



#### SECTION H MATERIALS HANDLING

#### H.1 Waste Types and Quantities – Existing & Proposed

Provide an estimation of the quantity of waste likely to be handled in relation to each class of activity applied for. This information should be included in Table H.1(a).

## TABLE H.1(A). QUANTITIES OF WASTE IN RELATION TO EACH CLASS OF ACTIVITY APPLIED FOR

Waste Management Act		Waste Management Act		
3rd Schedule (Disposal) Activities		4th Schedule (Recovery) Activities		
Class of	Quantity (tpa)	Class of		Quantity (tpa)
Activity		Activity		
Applied For		Applied For		
Class 1		Class 1		Jee.
Class 2		Class 2	~	<mark>o</mark> 40000
Class 3		Class 3	00	15000
Class 4		Class And an	,	15000
Class 5		Class 5		
Class 6		Class 6		
Class 7		of Class 7		
Class 8		Class 8		
Class 9	For internet	Class 9		
Class 10	FORT	Class 10		
Class 11	5000 totoy	Class 11		
Class 12	5000 ent	Class 12		
Class 13	5000 0115	Class 13		5000

In Table H. 1 (B) provide the annual amount of waste handled/to be handled at the facility. Additional information should be included in**Attachment H.1.** The tonnage per annum should be given of that expected for the life of the licence, with at least the next five years tonnages provided. For Landfill Review applications provide an estimate of the quantity of waste already deposited in (i) limed cells; (ii) unlined cells.

#### TABLE H.1(B) ANNUAL QUANTITIES AND NATURE OF WASTE\*

Year	Non-hazardous waste (tonnes per annum)	Hazardous waste (tonnes per annum)	Total annual quantity of waste (tonnes per annum)
2008	60,000	0	60,000
2009	65,000	0	65,000



2010	70,000	0	70,000
2011	75,000	0	75,000
2012	80,000	0	80,000
2014	90,000	0	90,000

\*Subject to Market Conditions

A detailed inventory of the types and quantities of wastes currently handled at the site and proposed to be handled should be submitted as Table H.1 (C).

#### TABLE H.1 (C) WASTE TYPES AND QUANTITIES

WASTE TYPE	TONNES PER ANNUM (existing)	TONNES PER ANNUM (proposed)	TOTAL (over life of site) tonnes
Household	0	30,000	UNKNOWN
Commercial	0	15,000	UNKNOWN
Sewage Sludge		0	0
Construction and Demolition	0	30,000 offer the	UNKNOWN
Industrial Non- Hazardous Sludges	0		0
Industrial Non- Hazardous Solids	0 cuto	§15,000	UNKNOWN
Hazardous *(Specify detail in Table H 1.2)	0 For Ling	0	0
Inert Waste imported for restoration purposes	COMPLETE	FOR LANDFILL & CONT FACILITIES ONLY	AMINATED LAND

\* TABLE H.1.2 HAZARDOUS WASTE TYPES AND QUANTITIES

HAZARDOUS WASTE	DETAILED DESCRIPTION * Reference Should Be Made To The Relevant European Waste Catalogue Codes As Presented By Commission Decision 2000/532/EC	Tonnes Per Annum (Existing)	(Tonnes Per Annum Proposed)
Waste Oil		0	0
Oil filters		0	0
Asbestos		0	0
Paint and Ink		0	0



Batteries		0	0
Fluorescent Light Bulbs		0	0
Contaminated Soils		0	0
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)			
			0

Attachment H.1 should contain any relevant additional information.

It should be noted that an applicant may be issued with a licence which restricts the type of wastes which may be deposited.

#### H.2 Waste Acceptance Procedures

Procedures for checking waste loads as they arrive at the facility must be included. These should follow the requirements of the Agency's Waste Acceptance Manual.A copy of these procedures and other associated documentation should be included as Attachment H.2.

*H.3 Waste Handling* Waste handling and the operating procedures used at the facility including waste treatment processes should be described in Attachment H.3. Included in the attachment should be information on the plant used on site and on the methods and processes for handling waste on-site. Special requirements hold for contaminated soil facilities, see Guidance Note.

#### In addition, an application for a Landfill requires Section H.3.a to be completed:

#### **H.3a** Waste Handling at the Landfill Facility

State whether all waste will be subject to treatment prior to landfilling. Provide information as to the quantities of biodegradable municipal waste and how the targets of the Landfill Directive (1999/31/EC) relating to that waste type are to be achieved. In particular describe how the following will be achieved:

- (a) a reduction by 16/07/06 to 75% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;
- (b) a reduction by 16/07/09 to 50% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;
- (c) a reduction by 16/07/16 to 35% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest



year before 1995 for which standardised Eurostat data is available;

(d)Evidence should be provided to show that energy will be used efficiently.

#### H.4 Waste Arisings

Waste Arisings should be considered for all contaminated soil applications. Details of all waste materials generated on the site including, name, description and nature as well as the source(s) should be identified. The quantities of each type of waste generated on an annual/monthly basis should be calculated and stated in Tables H.1(i) and H. 1(ii) of the application form. Applicants should also provide conversion factors used to relate volume (m<sup>3</sup>) and tonnage (t) for their waste stream.

#### SECTION I EXISTING ENVIRONMENT & IMPACT OF THE FACILITY

Detailed information is required to enable the Agency to assess the existing environment. This section requires the provision of information on the ambient environmental conditions at the site prior to the commencement of waste management activities or prior to the receipt of a review application.

Where development is proposed to be carried out, being development which is of a class for the time being specified under Article 24 (First Schedule) of the Environmental Impact Assessment Regulations, the information on the state of the existing environment should be addressed in the EIS. In such cases, it will suffice for the purposes of this section to provide adequate cross-references to the relevant sections in the EIS.

#### I.1.Assessment of atmospheric emissions

Describe the existing environment in terms of air quality with particular reference to ambient air quality standards.

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to the atmosphere are likely to impair the environment.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Attachment I.1 should also contain full details of any dispersion modelling of atmospheric emissions from the activity, where required.

#### I.2. Assessment of Impact on Receiving Surface Water



Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Table I.2(i) should be completed

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to water are likely to impair the environment.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Full details of the assessment and any other relevant information on the receiving environment should be submitted as **Attachment I.2.** 

# I.3. Assessment of Impact of Sewage Discharge.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Full details of the assessment and any other supporting information should form Attachment I.3.

# <u>I.4 Assessment of impact of ground/groundwater emissions</u>

The scope and detail of this assessment will depend to a large extent on the extent and type of ground emissions at any site, which in turn are related to the risk. Details should be included in **Attachment I.4**. Comprehensive guidelines are contained in the *Application Guidance Note*, and include particular requirements for landfill and brownfield facilities.

Describe the existing groundwater quality. Tables I.4(i) should be completed.

# I.5 Ground and/or groundwater contamination

Summary details of known ground and/or groundwater contamination, historical or current, on or under the site must be given.

Full details including all relevant investigative studies, assessments, or reports, monitoring results, location and design of monitoring installations, appropriately scaled plansdrawings ( $\leq$ A3), documentation, including containment engineering, remedial works, and any other supporting information should be included in **Attachment I.5**.

I.6 Noise Impact.

epa

Give details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Ambient noise measurements

Complete Table I.6(i) in relation to the information required below:

- (i) State the maximum Sound Pressure Levels which will be experienced at typical points on the boundary of the operation. (State sampling interval and duration)
- (ii) State the maximum Sound Pressure Levels which will be experienced at typical noise sensitive locations, outside the boundary of the operation.
- (iii) Give details of the background noise levels experienced at the site in the absence of noise from this operation.

Prediction models, appropriately scaled maps ( $\leq A3$ ), diagrams and supporting documents, including details of noise attenuation and noise proposed control measures to be employed, should form **Attachment I.6**.

I.7 Assessment of Ecological Impacts & Mitigation Measures

ofcor

The ecology of the site and the surrounding area should be assessed in the vicinity of the largescale waste facilities such as landfill or incinerator developments. An assessment of the ecology should form **Attachment I.7.** Comprehensive guidelines are contained in the *Application Guidance Note* 

# SECTION J ACCIDENT PREVENTION & EMERGENCY RESPONSE

Describe the existing or proposed measures, including emergency procedures, to minimise the impact on the environment of an accidental emission or spillage.

Also outline what provisions have been made for response to emergency situations outside of normal working hours, i.e. during night-time, weekends and holiday periods.

Describe the arrangements for abnormal operating conditions including start-up, leaks, malfunctions or momentary stoppages.

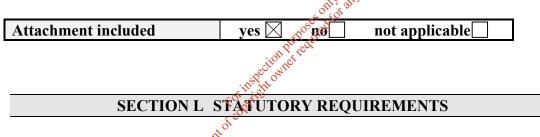
Supporting information should form Attachment J.

|--|

# SECTION K REMEDIATION, DECOMMISSIONING, RESTORATION AND AFTERCARE

Describe the existing or proposed measures to minimise the impact on the environment after the activity or part of the activity ceases operation, including provision for post-closure care of any potentially polluting residuals.

For Landfill Applications, capping proposals are required, and reference should be made to the *Landfill Manual on 'Restoration and Aftercare'* published by the Agency, when completing this section.



# L. 1 Section 40(4) WMA

Indicate how all the requirements of Section 40(4)[(a) to (i)] of the Waste Management Acts 1996 to 2003 will be met.

Applicants should also describe how the proposed facility will comply with the requirements of BAT. In particular reference should be made to the considerations referred to in Annex IV of Council Directive 96/61/EC concerning integrated pollution prevention and control.

Attachment L.1 should contain the documentation requested above, along any relevant additional information.

Attachment included	yes 🖂	no	not applicable
---------------------	-------	----	----------------

L.2 Fit and Proper Person



The WMA in Section 40(4)(d) specifies that the Agency shall not grant a licence unless it is satisfied that the applicant (if the applicant is not a local authority) is a fit and proper person. Section 40(7) of the WMA specifies the information required to enable a determination to be made by the Agency.

- Indicate whether the applicant or other relevant person has been convicted under the Waste Management Acts 1996 to 2003, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.
- Provide details of the applicant's technical knowledge and/or qualifications, along with that of other relevant employees (Link to Section C.1 of the application).
- Provide information to show that the person is likely to be in a position to meet any financial commitments or liabilities that may have been or will be entered into or incurred in carrying on the activity to which the application relates or in consequence of ceasing to carry out that activity (Link to Section K of the application).

Supporting information should be included as Attachment L 2 with reference to where the information can be found in the application of  $\sum_{x \in X} e^{-\frac{1}{2} \int_{x} e^{-\frac{1}{$ 

	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
Attachment included	yes	no	not applicable
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	or instants		
	te opt		
att	ð		
Conserv			
-			



# **SECTION M DECLARATION**

#### Declaration

I hereby make application for a licence / revised licence, pursuant to the provisions of the Waste Management Acts 1996 to 2003 and Regulations made thereunder.

I certify that the information given in this application is truthful, accurate and complete.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website. This consent relates to this application itself and to any further information, submission, objection, or submission to an objection whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

		net use.	
Signed by :(on behalf of the organisation)	For inspection purposes only in the purpose of the	or any other Da	te :
Print signature name:	on purpolitic		
T Thit signature name	A HEQUIN OWNE		
Position in organisation	: <u></u>		
	Consent		
		ſ	Company stamp or seal:



# **ANNEX 1 STANDARD FORMS**

Standard forms are provided in this section for the recording and presentation of environmental monitoring and site investigation results

# **TABLE E.1(i)LANDFILL GAS FLARE EMISSIONS TO ATMOSPHERE**Emission Point:

Emission Point Ref. Nº:	
Location :	
Grid Ref. (12 digit, 6E,6N):	
Vent Details	offertise
Diameter:	Ses offer and
Height above Ground(m):	in Purpointe
Date of commencement of emission:	For inspection purpose only, any other use
	stor

# Characteristics of Emission

СО				mg/m <sup>3</sup>
Total organic carbon (T	OC)			mg/m <sup>3</sup>
NOx		0°C. 3	% O2(Liquid or Gas), 6%	mg/Nm <sup>3</sup> % O <sub>2</sub> (Solid Fuel)
Maximum volume of e	mission			m <sup>3</sup> /hr
Temperature	°C	C(max)	°C(min)	°C(avg)

# (i) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shutdown to be included*):

Periods of Emission (avg)	min/hr	hr/day	day/yr
---------------------------	--------	--------	--------



#### TABLE E.1(ii) MAIN EMISSIONS TO ATMOSPHERE (1 Page for each emission point)

Emission Point Ref. N <sup>o</sup> :	Odour Management System To Be Agreed with the Agency
Source of Emission:	
Location :	
Grid Ref. (12 digit, 6E,6N):	
Vent Details Diameter:	
Height above Ground(m):	
Date of commencement:	

# **Characteristics of Emission :**

Characteristics of Emi	ission :	any any other use.	
(i) Volume to be e	emitted:	upost el for	
Average/day	m <sup>3</sup> /dion	م معنی معنی معنی معنی معنی معنی معنی معن	m <sup>3</sup> /d
Maximum rate/hour	Forma/h	Min efflux velocity	m.sec <sup>-1</sup>
(ii) Other factors	onsentor		
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Source	ces:		
Volume terms express	sed as : $\Box$ wet	t. $\Box$ dry.	%O <sub>2</sub>

(iii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up /shutdown to be included):

Periods of Emission (avg)	min/hr	hr/day	day/yr



# TABLE E.1(iii): MAIN EMISSIONS TO ATMOSPHERE

**Chemical characteristics of the emission** (1 table per emission point)

Emission Point Reference Number:\_\_\_\_\_

Parameter		Prior to tr	reatment <sup>(1)</sup>		Brief			As discl	narged <sup>(1)</sup>		
	mg/	Nm <sup>3</sup>	kg	g/h	description	mg/	Nm <sup>3</sup>	kg	/h.	kg/	year
	Avg	Max	Avg	Max	of treatment	Avg	Max	Avg	Max	Avg	Max
				Consent of cos	espection purpose only: any other use.						

1. Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0°C,101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless clearly stated otherwise.

# TABLE E.1(iv): EMISSIONS TO ATMOSPHERE-Minor /Fugitive

Emission point	Description		Emission	details <sup>1</sup>	Abatement system employed	
Reference Numbers		material	mg/Nm <sup>3(2)</sup>	kg/h.	kg/year	
		For inspection	Puposes only.	ny other use.		

1 The maximum emission should be stated for each material emitted, the concentration should be based on the maximum 30 minute mean.

2 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0°C101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

# **TABLE E.2(i):EMISSIONS TO SURFACE WATERS**<br/>(One page for each emission)

# **Emission Point: SW 1**

Emission Point Ref. Nº:	SW1
Source of Emission:	Roofs & paved hardstanding
Location :	ost cellor
Grid Ref. (10 digit, 5E,5N):	NION PUT PORT
Name of receiving waters:	FOT INSPIRO
Flow rate in receiving waters:	<u>manual distribution</u>
Available waste assimilative capacity:	kg/day

# **Emission Details:**

(i) Volume to be emitted

Normal/day	m <sup>3</sup>	Maximum/day	m <sup>3</sup>
Maximum rate/hour	m <sup>3</sup>		

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included*):

Periods of Emission (avg)	min/hrhr/dayday/yr
	Consent of Copyright owner control for any other
	ion puposities
	or instead
	x of cont
	Courser



# TABLE E.2(ii): EMISSIONS TO SURFACE WATERS Characteristics of the emission (1 table per emission point)

None

Emission point reference number :\_\_\_\_\_

Parameter	Prior to treatment		As discharged			% Efficiency			
	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	Max. hourly average (mg/l) dr	Max. daily average (mg/l)	kg/day	kg/year	
			C	For inspective for inspective pseulod convinging	pupper of to				



# TABLE E.3(i): EMISSIONS TO SEWER(One page for each emission)

# **Emission Point:**

Emission Point Ref. Nº:	SE1
Location of connection to sewer :	
Grid Ref. (10 digit, 5E,5N):	
Name of sewage undertaker:	

# **Emission Details:**

(i) Volume to be emitted						
Normal/day	3.75m <sup>3</sup>	Maximum/day	4m <sup>3</sup>			
Maximum rate/hour	m <sup>3</sup>	2011, and other				
(ii) Period or periods during which emissions are made, or are to be made,						

(11)	Period or periods during which emissions are made, or are to be made,
	including daily or seasonal warrations (start-up /shutdown to be included):
	× 57

Periods of Emission (avg)	<u>30 min/hr</u> <u>1</u>	hr/day <u>20</u> day/yr
Cor		



# TABLE E.3(ii): EMISSIONS TO SEWER Characteristics of the emission (1 table per emission point)

# Emission point reference number :\_\_\_\_\_

Parameter		Prior to treatment			As discharged			% Efficiency	
	Max. hourly average	Max. daily average	kg/day	kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	
	(mg/l)	(mg/l)				ر ک ب			
						other th			
					Still at	8			
					oo ited for				
					On Pulleout				
					For inspection purposes only a				
					FOIDTIGHT				
					50 <sup>5</sup>				
				OTSEN	<u>у</u> -				



# TABLE E.4(i): EMISSIONS TO GROUNDWATER (1 Page for each emission point)

# **Emission Point or Area:**

Emission Point/Area Ref. Nº:	
Emission Pathway: (borehole, well, percolation area, soakaway, landspreading, etc.)	
Location :	A A A A A A A A A A A A A A A A A A A
Grid Ref. (10 digit, 5E,5N):	Second for all
Elevation of discharge: (relative to Ordnance Datum)	Consent of Copyright on the copyright of
Aquifer classification for receiving groundwater body:	Formstite
Groundwater vulnerability assessment (including vulnerability rating):	Consent
Identity and proximity of groundwater sources at risk (wells, springs, etc):	
Identity and proximity of surface water bodies at risk:	



# **Emission Details:**

(i) Volume to be emitted						
Normal/day	m <sup>3</sup>	Maximum/day	m <sup>3</sup>			
Maximum rate/hour	m <sup>3</sup>					

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included*):

min/hr	hr/day	dat// and of
	- ction	Pupos, net required
	Forthspittor	•
	consent of C	
		min/hrhr/day

# Table E.5(i): NOISE EMISSIONS

#### Noise sources summary sheet - SEE NOISE IMPACT ASSESSMENT -

Source	Emission point Ref. No	Equipment Ref. No	Sound Pressure <sup>1</sup> dBA at reference distance									Impulsive or tonal qualities	Periods of Emission	
				31.5	63	125	250	500	1K	2K	4K	8K		
								~e.						
							×.	V						
							other							
						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~								
						es off	or th							
					on put	POT ITOL								
					n P	rect								
				insp	oction ne									
				cotif										
				FOLDIN										
				at of										
			and the	Q.L.										
1 For items	of plant sound pov	var lavals may be	used Used											

1. For items of plant sound power levels may be used.



# **TABLE F.1: ABATEMENT / TREATMENT CONTROL**

# SEE ATTACHMENT F

# Emission point reference number :\_\_\_\_\_

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
Odour	To be Agreed			
Noise	Buildings			
Dust	Buildings			
Surface water sewer	Oil interceptor			
Foul Sewer	-			

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
Odour	Daily/Annually	es only ar,	
Noise	Annually	To be Agreed	
Dust	Annually	Bergerhoff Gauges	
Surface water sewer	Annually Former	Chemical analysis - Grab	
Foul Sewer	Annually Stool	Chemical analysis - Grab	
	ment		

<sup>1</sup> List the operating parameters of the treatment / abatement system which control its function. <sup>2</sup> List the equipment necessary for the proper function of the abatement / treatment system.

 $^{3}$  List the monitoring of the control parameter to be carried out.



# TABLE F.2 to F.8 : EMISSIONS MONITORING AND SAMPLING POINTS-(1 table per media)

Emission Point Reference No(s). :\_\_\_\_\_

Parameter	Monitoring frequency	Accessibility of Sampling Points	. 15 <sup>0</sup> .
			all' any other use.
			a for are
		ion purpoint	
		rite etterne	
		fo optim	
		consent	

# TABLE Ff: Fugitive ENVIRONMENT MONITORING AND SAMPLING LOCATIONS (1 table per media)

Monitoring Point Reference No :\_\_\_\_\_

Parameter	Monitoring frequency	Accessibility of Sampling point	
		Consent of copyright own	artoses only, any other use.



# Table G.1 Details of Process related Raw Materials, Intermediates, Products, etc., used or generated on the site

# See Attachment

Ref. Nº or Code	Material/ Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
			a la	utoses official	Sofferit			

In cases where a material comprises a number of distinct and available dangerous substances, please give details for each component substance. c.f. Article 2(2) of SI N<sup>o</sup> 77/94 c.f. Schedules 2 and 3 of SI N<sup>o</sup> 77/94 Construction of the construc Notes: 1.

2.

3.



# TABLE H.1(i): WASTE Hazardous Waste Recovery/Disposal

Waste material	EWC Code	Main source <sup>1</sup>	Qu	antity	On-site Recovery/Disposal	Off-site Recovery, reuse or recycling	Off-site Disposal
			Tonnes / month	m <sup>3</sup> / month	(Method & Location )	(Method, Location & Undertaker)	(Method, Location & Undertaker)
			Consent of contrast own	unose only any other use			

A reference should be made to the main activity / process for each waste.

1



# TABLE H.1(ii) WASTE - Other Waste Recovery/Disposal

Waste material	EWC Code	Main source <sup>1</sup>	Qua	ntity	On-site recovery/disposal <sup>2</sup>	Off-site Recovery, reuse or recycling	Off-site Disposal
			Tonnes / month	m <sup>3</sup> / month	(Method & Location)	(Method, Location & Undertaker)	(Method, Location & Undertaker)
					at use.		
					only any other use.		
				Duttose	red to		
				ction puredu			

1

A reference should be made to the main activity/ process for each waste. 2



# Table I.2(i) SURFACE WATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference:

Parameter			sults ng/l)		Sampling method <sup>2</sup> (grab, drift etc.)	Normal Analytical Range <sup>2</sup>	Analysis method / technique
	Date	Date	Date	Date			
рН					netu		
Temperature					N. B. Or		
<b>Electrical conductivity EC</b>					es offor att		
Ammoniacal nitrogen NH <sub>4</sub> -N					Postiel		
Chemical oxygen demand				ion Pt	teor.		
<b>Biochemical oxygen demand</b>				Dectionines			
Dissolved oxygen DO				COT IT BIL			
Calcium Ca				to P3			
Cadmium Cd				or			
Chromium Cr			COLSO				
Chloride Cl			<b>v</b>				
Copper Cu							
Iron Fe							
Lead Pb							
Magnesium Mg							
Manganese Mn							
Mercury Hg							



# Surface Water Quality (Sheet 2 of 2)

Parameter			sults 1g/l)		Sampling method (grab, drift etc.)	Normal Analytical Range	Analysis method / technique
	Date	Date	Date	Date	,		
Nickel Ni							
Potassium K							
Sodium Na							
Sulphate SO <sub>4</sub>					~ <b>0</b> *		
Zinc Zn					net to		
Total alkalinity (as CaCO <sub>3</sub> )					W. Not		
Total organic carbon TOC					250TEOT 200		
Total oxidised nitrogen TON					Postied		
Nitrite NO <sub>2</sub>				in po	rede		
Nitrate NO <sub>3</sub>				oectrowne.			
Faecal coliforms (/100mls)				of inselft			
Total coliforms (/100mls)				FOR			
Phosphate PO <sub>4</sub>				or			

# Table I.4(i) GROUNDWATER QUALITY (Sheet 1 of 2) Monitoring Point/ Grid Reference:

Parameter			esults ng/l)		Sampling method (composite etc.)	Analysis method / technique	
	Date	Date	Date	Date			
рН							
Temperature							
<b>Electrical conductivity EC</b>							
Ammoniacal nitrogen NH <sub>4</sub> -N							
Dissolved oxygen DO					1150.		
Residue on evaporation					anyotherus		
(180°C)				All and a second	any		
Calcium Ca				5,50			
Cadmium Cd				aupo uirec			
Chromium Cr				tion purpositied			
Chloride Cl			-Se	V OWNE			
Copper Cu			Former	Ç.			
Cyanide Cn, total			follow.				
Iron Fe			-N-				
Lead Pb			Collier				
Magnesium Mg							
Manganese Mn							
Mercury Hg							
Nickel Ni							
Potassium K							
Sodium Na							

# GROUNDWATER QUALITY (SHEET 2 OF 2)

Parameter			Results (mg/l)		Sampling method (composite, dipper etc.)	Normal Analytical Range	Analysis method / technique
	Date	Date	Date	Date			
Phosphate PO <sub>4</sub>							
Sulphate SO <sub>4</sub>							
Zinc Zn							
Total alkalinity (as CaCO <sub>3</sub> )							
Total organic carbon TOC							
Total oxidised nitrogen TON					se.		
Arsenic As					there		
Barium Ba					att'att		
Boron B				ى ئەر	offor		
Fluoride F				auponit	b l		
Phenol				tion purcell			
Phosphorus P				SPec Owit			
Selenium Se			4	A IT HEAT			
Silver Ag			e (	Jog J			
Nitrite NO <sub>2</sub>			entor				
Nitrate NO <sub>3</sub>			Conser				
Faecal coliforms ( /100mls)							
Total coliforms (/100mls)							
Water level (m OD)							

# Table I.6(i) Ambient Noise Assessment See Noise Assessment Report

	National Grid Reference (5N, 5E)	Sound Pressure Levels		
		L(A) <sub>eq</sub>	L(A) <sub>10</sub>	L(A) <sub>90</sub>
1. SITE BOUNDARY				
Location 1:				
Location 2:				
Location 3:				
Location 4:				
2. NOISE				
SENSITIVE				
LOCATIONS		1		
Location 1:				
Location 2:				
Location 3:				
Location 4:			A 1150.	
Έ: All locations should be	Forth	nying drawings.	801	

Third Octave analysis for noise emissions should be used to determine tonal noises

# ATTACHMENT A

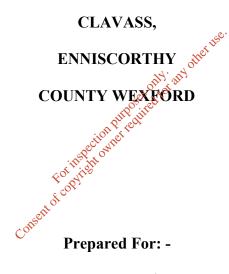
Non-Technical Summary, e.

# WASTE LICENCE APPLICATION

#### NON-TECHNICAL SUMMARY

#### MATERIALS RECOVERY AND TRANSFER FACILITY

AT



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

#### Prepared By: -

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

November 2007

November 2007 (JOC/MW)

#### 1 NON-TECHNICAL SUMMARY

Greenstar Ltd. (Greenstar) is applying to the Environmental Protection Agency (EPA) for a Waste Licence to construct and operate a Materials Recovery and Transfer Facility (MRTF) at Clavass, Enniscorthy, County Wexford.

The application for a Waste Licence is in accordance with the requirements of the Waste Management Acts, 1996 to 2003. This non-technical summary contains the information specified in Article 12 (1) (u) of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004).

# Compliance with Requirements of the Waste Management Act 1996 to 2003

Best Available Techniques (BAT) will be used to prevent/eliminate or, where this may be deemed not practicable, limit/abate/reduce emissions of environmental concern resulting from Consent of copyright owner on-site recovery activities. real

# **Nature of the Facility**

The proposed development involves the construction and operation of a materials recovery and transfer facility on a 1.5 ha site, 4 kilometres north of Enniscorthy. This will include a Main Building, where all waste processing will be carrier out, an Administration Building, ESB substation, double weighbridge, bunded fuels storage area and a vehicle wash. The facility will handle source separated and mixed non-hazardous solid wastes. The waste types will include Household, Commercial & Industrial (C&I) and Construction & Demolition (C&D) waste. Operations will involve on-site waste sorting, compacting, baling and transfer off-site to recycling/treatment facilities and residual landfill.

The facility will form a very important part of the waste management infrastructure required in the South East Region to achieve European Union, national and regional objectives for waste treatment, recovery and recycling and the diversion of waste, including biodegradable waste, from landfill.

# **Classes of Activity**

The relevant activities as per the Fourth Schedule of the Waste Management Acts 1996 – 2005 will be as follows: -

#### Third Schedule – Waste Disposal Activities

- 12: 'Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule'.
- 11: 'Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule'.
- 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'.

#### **Fourth Schedule – Waste Recovery Activities**

Principal Activity:

- 2: 'Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological processes)'. (P)
- 3: 'Recycling or reclamation of metals and metal compounds'.
- 4: 'Recycling or reclamation of other inorganic materials'.
- 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'.

# Quantity and Nature of the Waste to be Recovered or Disposed

Consent

A maximum of 90,000 tonnes per annum will be processed. Total waste inputs are shown on Table 1.1

# **Table 1.1**Waste Types and Amounts

Waste Type	Maximum Capacity*
C & I	30,000
Household	30,000
C & D	30,000
Total	90,000

<sup>\*</sup>Subject to Market Conditions

# <u>Raw and Ancillary Materials, Substances, Preparations, Fuels & Energy used on the Site</u>

Raw materials and energy that will be used include: -

- Diesel for on-site equipment,
- Hydraulic oil and engine oil for use in on-site equipment,
- Electricity,
- Water.

# Plant, Methods, Processes, Abatement, Recovery, Treatment and Operating Procedures

The estimated type and number of machinery items that will be used at the facility on a regular basis includes: -

Type of Plant	MRTF Building	and for any other use.
Front Loading Shovel	2	es Ntor
Trommel or similar	1/2 JUP	hirec
mechanical process	tion Press	**
Baler	1 spect own	
Air Compressor	to Mitight	
Grabs	્રેઝી	
Shredder	ent or 1	
Conveyor	Const 2	
Bag Opener	1	
Forklift	1	
Yardsweeper	1	
Odour abatement system	1	

# Waste Processing

Initially, the majority of the waste will be delivered to the facility by Greenstar collection vehicles. Waste will also be delivered by third parties, including permitted waste collectors. Wastes will not be accepted from individual householders.

# Household Waste

Household waste will comprise source separated dry recyclables and mixed residual wastes. It will be delivered to the facility in enclosed refuse trucks and will be off loaded in a

designated area inside the Main Building, where it will be inspected to ensure it is suitable for processing i.e. it does not contain any hazardous or other unsuitable material.

The source separated material will be moved to the baling units or loading bays where it will be baled, or compacted before being loaded onto trailers for removal off-site. The mixed waste containing putrescible (e.g. food stuff) waste will only be handled in area provided with an odour control system. The waste may be mechanically processed to remove potential recyclable materials including metals, paper, plastics, compostable materials and materials that are suitable for energy recovery. The recovered metals, paper and plastic will be stored on-site pending removal to off-site recovery/recycling facilities. The compostable materials will be removed off-site for composting at a permitted/licensed facility.

# C & I Waste

The C & I waste will comprise source separated and mixed residual waste. The source separated materials will contain larger fraction of cardboard, plastic and cans than the household dry recyclables. Any waste containing putrescible material will be handled with the mixed household waste in the area provide with odour control.

The source separated material will be baled, or compacted before being loaded onto trailers for removal off-site. The mixed waste will be mechanically treated to remove potential recyclable materials. The recovered non compostable materials will be stored on-site pending removal to off-site recovery/recycling facilities. The compostable materials will be removed off-site for composting at a permitted/licensed facility. Consent of copt

C & D Waste

C&D Waste will be off-loaded in the designated area inside the Main Building for inspection. Any unsuitable (contaminated) materials will be removed to a waste quarantine area. Large items of wood, metal or plastic will be removed using a mechanical grab or trommel and bought to the appropriate on-site handling/storage area. The remaining material will be screened. The screened material will be sent off-site for recycling.

# Information Related to Section 40(4) (a) to (d) of the Waste Management Act

Emissions from the facility will not result in the contravention of any relevant standard or emission limit prescribed under enactment. The proposed development is consistent with the Joint Waste Management Plan for the South East Region 2006 – 2011.

The proposed activities are based on best management practice and take into consideration the the BAT Guidance Note for the Waste Sector: Waste Transfer Activities published by the

EPA. The facility operations, when carried out in accordance with licence conditions, will not cause environmental pollution.

The facility Manager and Deputy will complete the FAS Waste Management Training Programme, or equivalent agreed with the Agency, prior to the start of waste acceptance.

Energy will be used efficiently in the carrying out of proposed activities although the proposed composting process is not energy intensive. Necessary measures will be taken to ensure limited consequences for the environment from accidents or the permanent cessation of activities at the site.

# Source, Location, Nature, Composition, Quantity, Level and Rate of Emissions

# *Surface Water / Groundwater*

The site is in the catchment of the River Slaney, which is to the north and east of the site and approximately 1.5 km from the site boundary. There are no surface water drains on the site. Surface water from rainfall on the roof and open yards will be directed to the surface water sewer that runs along the western boundary. Silt traps and an oil interceptor will be provided to prevent sediment and any oils that may occur as a result of accidental spills, from entering the sewer. The rate of water flow from the site will be controlled by means of a valve and holding tank to ensure that the flows do not affect the integrity of the sewer.

The water from the sinks and toilets will go to the new foul sewer system and will be pumped to the Council's sewer. Wash water from cleaning the floor in the main building, water from the vehicle wash area and rainwater from the refuelling area will also go to the foul water sewer.

The soils are a shale till (clay) ranging from 3 to 10 metres deep. The underlying bedrock is rhyloitic volcanics and grey and brown slates. The subsoils are not significantly water bearing. The bedrock is classified as a Regionally Important Aquifer and its vulnerability to pollution ranges from high to low. There will be no direct or indirect routine emission to ground or groundwater.

# Dust/Odours/Exhaust Emissions

Air quality surveys were carried out to establish the current conditions. The surveys indicate that air quality at the site is generally good. The proposed development will be a source of emissions to air lined to traffic and the waste activities. These emissions include dusts, vehicle exhaust gases and odours.

# Noise

An environmental noise survey was carried out to establish the existing noise levels at the site. The survey included measurements at three locations (N1, N2 and N3) within the site boundary and at two off site locations (NSL1 and NSL2). The off-site locations were near the closest houses to the site, as these were considered to be the locations most sensitive to noise from the facility. The dominant source of noise is traffic on the N11. The lowest levels were recorded at NSL1, where shielding from the N11 is provided by the buildings in the Commercial Park. The facility will be a source of noise emissions from the waste processing plant used internally, building services plant, waste transport vehicles and external movement of facility vehicles e.g. road sweeper.

# Assessment of the Effects of Emissions on the Environment

# Groundwater / Surface water

When the site is operational, there will be no direct or indirect long-term emissions to ground The provision of extensive paved areas provided with surface water or groundwater. collection drains, and secondary containment of the oil storage area minimises the potential for short term direct or indirect discharges to ground or groundwater, including dangerous 17, 202 substances, in the event of spill or leak. zion puppor died fo

# Dust/Odours/Exhaust Gases

Dust emissions will not be a significant problem. All waste processing that can produce dusts (e.g. screening and shredding of C& waste) will be carried out inside the main building. Dust suppression systems may be provided on the individual plant items. The facility access roads, manoeuvring and parking areas will be paved and a road sweeper will be used to keep the roads clean.

Some of the waste will contain odorous materials, such as foodstuffs. This type of waste will only be handled in the Mixed Waste Area of the Building. This area will be sealed off from the remainder of the building and will be provided with an air collection and odour treatment system. The system, which will be similar to ones already successfully operating at other waste recovery facilities, will ensure that odours from the facility do not cause a nuisance. The EPA's approval of the system deisng will be obtained before it is installed. Computer modelling indicates that the facility will not have any significant odour impact.

Computer modelling has indicated that the vehicle exhaust gases from traffic using the facility will not be significant and mitigation measures are not required.

#### Noise

The noise survey data was used, along with information on the noise levels from the equipment that will be used at the facility, to predict future noise levels both within the site

boundary and the closest houses. The development will not impact on the closest house to the north west. Due to the doors at the southern side of the main building, there is the potential that noise levels could exceed recommended night time limits at the house to the south. To prevent this a 4m high noise barrier will be erected along the southern site boundary.

#### **Monitoring and Sampling Points**

Dust

Dust will be monitored at three locations on the property boundary annually.

Noise

Noise will be monitored annually at the nearest noise sensitive locations.

Odour

outh any other use. For inspection put real Daily odour patrols around the site perimeter will be carried out.

Surface Water

The surface water discharge from the oil water separator on an annual basis. As the discharge will be intermittent and linked to rainfall events grab samples will be collected.

Waste Water

The waste water discharge from the floor wash downs and the vehicle wash and refuelling area will be sampled annually.

#### **Prevention and Recovery of Waste**

Waste oils generated during plant and vehicle maintenance will be collected and sent off-site for recovery.

#### **Off-site Treatment or Disposal of Solid or Liquid Wastes**

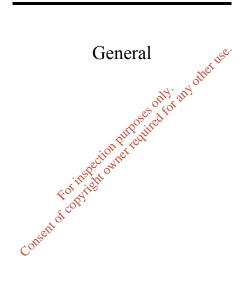
Sanitary and sink wastewater from the site offices, floor wash water from the Main Building, washwater from the vehicle wash and run-off from the refuelling area will be discharged to the facility's foul drainage system. This drainage system will connect to the Council's foul sewer.

#### **Emergency Procedures to Prevent Unexpected Emissions**

Before waste is accepted at the site Greenstar will prepare an Emergency Response Procedure that addresses all contingencies that might arise including fire and oil spills. The Procedure will ensure a rapid response to any incident by trained staff and minimise the impact on the environment.

#### **Closure, Restoration and Aftercare of the Site**

The majority of the site will be either paved or occupied by buildings, with minor landscape works at the site boundary. It is not anticipated that the waste processing activities will cease in the medium to long term. In the unlikely event that the facility shuts down it will be decommissioned in accordance with the Decommissioning Plan agreed with the EPA Post closure measures for the monitoring and maintenance of the building and the restored areas will also be as agreed with the EPA.



Applicants Details

#### Attachment B.1 Applicants Details

Greenstar Ltd. was incorporated on the 28<sup>th</sup> April 2004 (Company Reg. No.325120). A copy of the Certificate of Incorporation is included in this Attachment.

The Company Directors are: -

G. BaileyG. DennisonM. KingS. CowmanE. Bolger (Secretary)

The Registered address of the company is: -

Burton Court Burton Hall Road Sandyford Dublin 18

Drawing No. P-003 shows the Licence Area in red ink. All the lands owned by Greenstar Ltd. are also shown on Drawing No. P-003 in bluesing. The drawings are included in the Environmental Impact Statement (EIS), which accompanies this application.

Number 325120	
<b>Certificate of Incorporation</b>	
I hereby certify that SUNRISE CLEANERS LIMITED	
is this day incorporated under the Companies Acts 1963 to 1999 and that the company is limited. For instrument of the provide	
Given under my hand at Dublin, this	
Thursday, the 6th day of April, 2000	
$\mathcal{A}$	
for Registrar of Companies	

# **Certificate of Incorporation** on change of name

I hereby certify that

SUNRISE CLEANERS LIMITED

having, by a Special Resolution of the Company, and with the approval of the Minister for Enterprise, ection purposes only any offer use. Trade and Employment, changed its name, is now incorporated as a limited company under the name

#### MURPHY WASTE LIMITED

and I have entered such name on the Register accordingly. d'co

Conser Given under my hand at Dublin, this

Tuesday, the 6th day of November, 2001

for Registrar of Companies

# **Certificate of Incorporation** on change of name

I hereby certify that

**MURPHY WASTE LIMITED** 

having, by a Special Resolution of the Company, and with the approval of the Minister for Enterprise, Perion purposes only: any other use. Trade and Employment, changed its name, is now incorporated as a limited company under the name

#### GREENSTAR RECYCLING LIMITED

and I have entered such name on the Register accordingly. 80

Given under my hand at Dublin, this

Tuesday, the 24th day of September, 2002

for Registrar Companies

## Certificate of Incorporation on change of name

I hereby certify that

GREENSTAR RECYCLING LIMITED

having, by a Special Resolution of the Company, and with the approval of the Minister for Enterprise, Trade and Employment, changed its name, is now incorporated as a limited company under the name

# GREENSTAR MATERIALS RECOVERY LUMITED

and I have entered such name on the Register accordingly.

Given under my hand at Dublin, this

Monday, the 10th day of March, 2003

 $\mathcal{C}$ 

for Registrar of Companies

# **Certificate of Incorporation** on change of name

I hereby certify that

**GREENSTAR MATERIALS RECOVERY LIMITED** 

having, by a Special Resolution of the Company, and with the approval of the Minister for Enterprise, otion puppes only any other use. Trade and Employment, changed its name, is now incorporated as a limited company under the name

#### **GREENSTAR LIMITED**

and I have entered such name on the Register accordingly.

Given under my hand at Dublin, this

Wednesday, the 28th day of April, 2004

for F

Location of Facility Location of Facility

#### Attachment B.2 Location of Facility

The facility is located in the townland of Clavass, Enniscorthy, County Wexford as shown on Figure 4.1 Location Map (1:50,000) included in the EIS.

The site services are shown on Drawing No.D1080 D2. The National Grid Reference is E298250 N143520.

The boundary of the application area (Site Plan) is marked in red on Drawing No.P-003 Site Plan Layout. This is the same area that relates to the planning application for the site.

Consent of copyright owner required for any other use.

Planning Authority Planning Authority

#### Attachment B.3 Planning Authority

The planning authority is: -

Wexford County Council, County Hall, Spawell Road, Wexford.

Consent for inspection purposes only, any other use.

Sanitary Authority Sanitary Authority

#### Attachment B.4 Sanitary Authority

The sanitary authority is: -

Wexford County Council, County Hall, Spawell Road, Wexford.

Consent of copyright owner required for any other use.

Other Authorities Other Authorities

#### Attachment B.5 Other Authorities

The proposed activity is not located within the Shannon Free Airport Development Company area.

HSE – South Eastern Area Oak House, Millennium Park Naas, Co. Kildare

+353 (0)45 880400

Consent of copyright on the required for any other the.

Notices & Advertisements

#### Attachment B.6 Notices and Advertisements

Drawing No.P004 shows the Location of the Site Notice, the text of which is included in this attachment. A copy of the newspaper advertising the application for a waste licence and a copy of the letter informing Wexford County Council of Greenstar's intention to apply for a Waste Licence for the facility are also included in this Attachment.

Consent of copyright owned required for any other use.

## **SITE NOTICE**

Greenstar Ltd Unit 6 Ballyogan Business Park, Ballyogan Road, Sandyford, Dublin 18 is applying to the Environmental Protection Agency (EPA) for a Waste Licence to operate a Materials Recovery and Transfer Facility (MRTF) at Clavass, Enniscorthy, Co Wexford, which is located at National Grid References: E298250 N143520. The proposed development involves the construction and operation of an MRTF accepting 90,000 tonnes per annum of Non-Hazardous Household, Commercial & Industrial and Construction & Demolition waste. The application will be accompanied by an Environmental Impact Statement.

The relevant waste disposal and waste recovery activities, as per the Third and Fourth Schedules of the Waste Management Acts 1996 to 2003, and the Waste Management (Licensing) Regulations 2004, (S.I. No. 395 of 2004) to which this application relates are: -

#### Third Schedule – Waste Disposal Activities

- 12: 'Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule'.
- 11: 'Blending or mixture prior to submission to any activity' referred to in a preceding paragraph of this Schedule'.
- 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'.

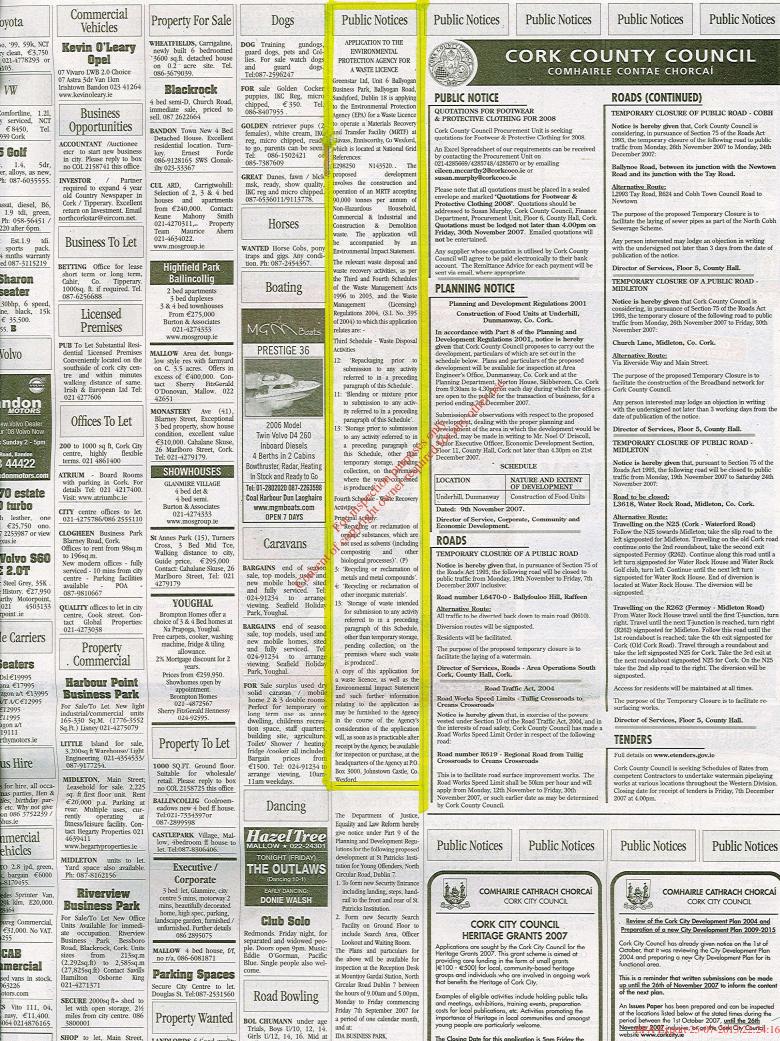
#### Fourth Schedule – Waste Recovery Activities

#### Principal Activity:

- 2: 'Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological processes)'. (P)
- 3: 'Recycling or reclamation of metals and metal compounds'.
- 4: 'Recycling or reclamation of other inorganic materials'.
- 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'.

A copy of this application for a waste licence, as well as the Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the application will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase, at the headquarters of the Agency at P.O. Box 3000, Johnstown Castle, Co. Wexford.

#### NG



SHOP to let. Main Street

he Closing Date for thi

An Issues Paper has been prepared and can be inspected at the locations listed below at the stated times during the period between the 1st October 2007, until the 20th November 2007, inclusive 25 on the Seriel Sty Course 1 ( 6 website www.corketty.ie

XX1 - V2

Irish Examiner Friday 09.11.2007

Granary House Rutland Street Cork



Planning Department, Wexford County Council, County Hall, Spawell Road, Wexford.

12<sup>th</sup> November 2007

#### RE: Application for a Waste Licence - Clavass, Enniscorthy, Co. Wexford

Dear Sir / Madam,

We wish to notify you, on behalf of our client Greenstar Ltd. Unit 6 Ballyogan Business Park, Ballyogan Road, Sandyford Dublin 18, of our intention to make an application to the Environmental Protection Agency (Agency) for a Waste Licence in respect of a proposal to develop and operate a Materials Recovery and Transfer Facility (MRTF) at Clavass, Enniscorthy, Co Wexford, which is located at National Grid References: Se 298250 N 143520. The proposed development involves the construction and operation of a MRTF accepting 90,000 tonnes per annum of Non-Hazardous Household, Commercial & Thdustrial and Construction & Demolition waste. The application will be accompanied by an Environmental Impact Statement (EIS).

The relevant waste disposal and waste recovery activities, as per the Third and Fourth Schedules of the Waste Management Acts 1996 to 2003, and the Waste Management (Licensing) Regulations 2004, (S.I. No. 395 of 2004) to which this application relates are: -

#### Third Schedule – Waste Disposal Activities

- 12: 'Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule'.
- 11: 'Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule'.
- 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'.

#### Fourth Schedule – Waste Recovery Activities

#### Principal Activity:

- 2: 'Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological processes)'. (P)
- 3: 'Recycling or reclamation of metals and metal compounds'.

Cont'd

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

- 4: 'Recycling or reclamation of other inorganic materials'.
- 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'.

A copy of this application for a waste licence, including the EIS and such further information relating to the application, as may be furnished to the Agency in the course of the Agency's consideration of the application will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase at the headquarters of the Agency at P.O. Box 3000, Johnstown Castle, Co. Wexford.

Yours sincerely,

Consent of copyright owned reading for any other. Jim O' Callaghan

Type of Activity Type of Activity

#### Attachment B.7 **Type of Activity**

The relevant activities as per the Fourth Schedule of the Waste Management Acts 1996 -2003 will be as follows: -

#### Third Schedule – Waste Disposal Activities

'Repackaging prior to submission to any activity referred to in a preceding paragraph of this 12: Schedule'.

Non recoverable household C&I,, C&D and other non-hazardous solid wastes will be baled or compacted on-site prior to consignment to off-site waste disposal facilities.

'Blending or mixture prior to submission to any activity referred to in a preceding paragraph 11: of this Schedule'

Non recoverable household, C&I, C&D and other non-hazardous solid wastes will be bulked up prior to consignment to off-site waste disposal facilities.

13: 'Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection con the premises where the waste concerned is produced'.

Non recoverable household, C&I, C&D and other non-hazardous solid wastes will be stored on-site prior to consignment to off-site waste disposal facilities.

### owner Fourth Schedule - Waste Recovery Activities of copy

#### Principal Activity:

'Recycling or reclamation of organic substances, which are not used as solvents (including 2: composting and other biological processes)'. (P)

Plastics, paper and cardboard collected separately and recovered from the incoming solid wastes will be consigned to off-site recycling facilities. Timber recovered from the incoming C&D waste will be consigned to off-site recycling/recovery facilities. This will be the principal activity at the site.

3: 'Recycling or reclamation of metals and metal compounds'.

Metals (ferrous and non-ferrous) which will be recovered from the incoming waste, and other metals (e.g. aluminium cans) delivered to the facility separately, will be stored on-site pending consignment to off-site recycling facilities.

4: 'Recycling or reclamation of other inorganic materials'.

Inorganic materials comprising inert materials recovered from the incoming C&D waste will be recovered from the incoming waste and stored pending consignment off-site for recycling and or use in land reclamation projects. Glass delivered separately and recovered from the incoming waste will be stored pending consignment to off-site for recycling facilities.

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'.

Recovered wastes will be stored prior to consignment to off-site recycling and recovery facilities.

Table B7	Total Waste Inputs
Table B7	Total Waste Inputs

Waste Type	Maximum Capacity*
C & I	30,000
Household	30,000
C & D	30,000 other tree.
Total	<b>90,000</b>
Subject to Market Conditions	

Fee: 3.2 The disposal of waste (other than hazardous waste) at a facility (other than a landfill facility) where the annual intake is likely exceed 25,000 tonnes but be less than 100,000 tonnes. €12,000.00

4 The recovery of waste €10,000.00

Seveso II Directive

#### Attachment B.8 Seveso II Directive

The EC (Control of Major Accident Hazards involving Dangerous Substances) Regs 2000 (SI No. 476 of 2000) does not apply to this facility.

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## **ATTACHMENT C**

Management of the Facility

Technical Competence & Site Management

#### Attachment C.1 Technical Competence and Site Management

As the facility has not been constructed staff have not been appointed. When fully operational between 10 and 15 full time staff will to be employed. These will include: -

- Facility Manager,
- Weighbridge Operator,
- Machine Operators,
- General Operatives.

Greenstar will ensure that the site management and staff are provided with the appropriate training to ensure that the facility is managed in accordance with the Waste Licence conditions and in a manner that does not result in environmental pollution.

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Environmental Management System (EMS)

#### Attachment C.2 Environmental Management System (EMS)

Greenstar will develop and implement an Environmental Management System (EMS) for the facility once it is operational. The EMS will, at a minimum, include the following documents: -

- Management Structure,
- Communications Programme,
- Corrective Action Procedures,
- Environmental Management Programme,
- Schedule of Targets and Objectives,
- Awareness and Training Procedures,
- Document Control Procedures.

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Hours of Operation

#### Attachment C.3 Hours of Operation

The proposed normal waste acceptance hours are 06:00 to 20:00 Monday to Saturday inclusive. The facility will not normally open on Sundays. The proposed operational hours are 06:00 to 22:00 Monday to Saturday. Due to the nature of the waste recycling business it may, on occasion, be necessary for vehicles delivering wastes and removing recycled materials to operate outside these hours, for example to meet customer demands in relation to the collection of wastes in urban areas.

Greenstar requests that the Agency includes a provision for the amendment of the waste acceptance and operational hours subject to the Agency's approval.

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## ATTACHMENT C.4

Conditioning Plan

## Attachment C.4 Conditioning Plan

A Conditioning Plan is not required.

Consent of conviction of the required for any other use.

# **ATTACHMENT D**

Infrastructure & Operationer

## ATTACHMENT D.1

Infrastructure

### Attachment D.1 Infrastructure

Details of the proposed infrastructure the site are shown on Drawing No. P-004.

### **D.1.** Infrastructure

### a. Site Security Arrangements

Section 5.17 of the EIS, which accompanies the application, describes the security arrangements.

### b. Design For Site Roads

Road design and layout are shown on Drawing P-04 and D1080D2.

### c. Hardstanding Areas

Section 5.2 of the EIS, which accompanies the application, describes the hardstanding areas.

 d. Weighbridge
 A double weighbridge will located near the site entrance. All waste transport vehicles will enter and exit the facility via the weighbridge.

e. Wheel Cleaning Vehicles delivering waste will have travelled significant distances on paved roads and will not require wheeling cleaning on entry to the facility. The entire area where vehicles will manoeuvre and park will be paved. Vehicles removing waste from the site will not track across waste. A vehicle wash will be provided at the location shown on Drawing No P004.

### f. **Laboratory Facilities**

A laboratory will not be provided.

### **Fuel Storage** g.

Oil and fuel storage arrangements are described in Section 5.11 of the EIS, which accompanies the application.

### h. Waste Quarantine Areas

Section 5.6 of the EIS, which accompanies the application, describes the waste quarantine arrangements.

### i. Waste Inspection

Section 5.6 of the EIS, which accompanies the application, describes the waste inspection procedures.

### j. Traffic Control

Section 5.10 of the EIS, which accompanies the application, describes the site access arrangements.

### k. All Services

Section 9 of the EIS which accompanies the application describes the site services. Site services will include electricity, telephone, a municipal water supply and a foul and surface water drainage system connected to the municipal services.

### I. Sewerage and Surface Water Infrastructure

Section 5.14 and Section 9 of the Eis which accompanies the application, describe the sewage and surface water arrangements?

### m. Plant Sheds, Garages and Equipment Compound

There will not be any plant sheds, garages or equipment compounds. All plant and equipment will be kept inside the Main Building. Mobile plant will be refuelled in the external fuelling area, shown on Drawing No. P004.

### n. Site Accommodation

Offices and toilet facilities for facility personnel will be provided in the Administration Building.

### o. Fire Control System

A ring main with fire hydrants will be installed around the Main Building and the Administration Building, as shown on Drawing No. D1080D2. Section 9.5 of the EIS, which accompanies the application, describes the fire retention arrangements.

### p. Civic Amenities

It is not proposed to provide any civic amenity facilities.

### q. Details of Composting Infrastructure

Composting will not be carried out.

### r. Description of Incineration infrastructure (if applicable)

Not Applicable.

### s. Details of any other infrastructure proposed

Other proposed infrastructure is described in Section 5 of the EIS, which accompanies the application.



### ATTACHMENT D.2

Facility Operation

### Attachment D.2 **Facility Operation**

### **Operational History**

The available information on the site history indicates that it has been used for agricultural purposes. There is no record or evidence of any previous development on the site prior.

### **Proposed Operations**

Section 5.7 of the EIS, which accompanies the application, describes the proposed operations and waste handling.

### **Process Control**

A process flow diagram of the waste operations is included with this attachment.

Emissions The potential emissions associated with facility performance include, surface water, odours, noise, wastewater and dust. Further information on emissions is presented in Sections 9,11,12 and 13 of the EIS that accompanies this application. Consent of copyright

# **Figure D4 – Construction & Demolition Waste**

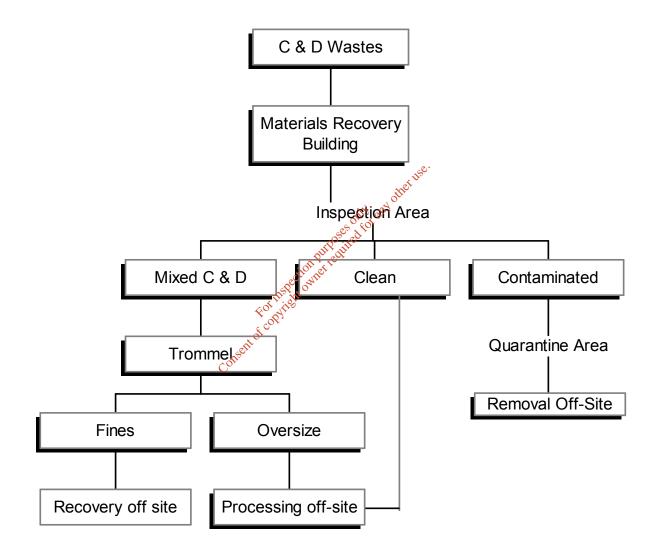
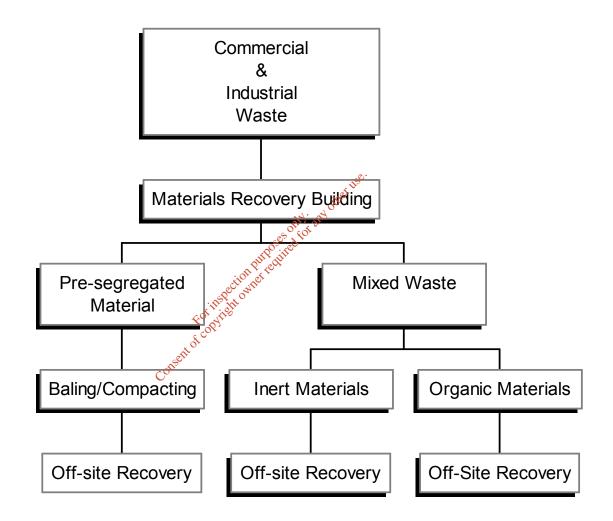


Figure D1: Commercial & Industrial Waste



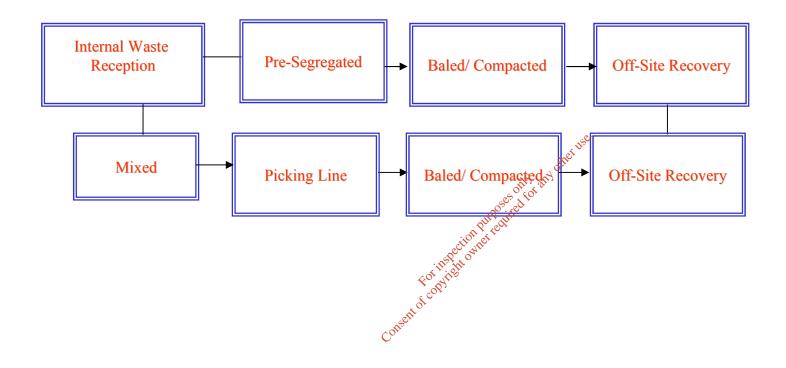
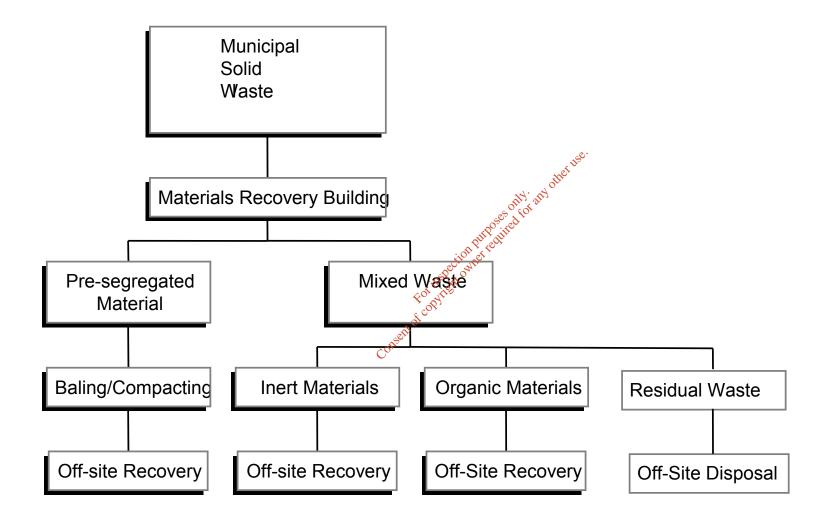


Figure D.2.1 Dry Recyclables Waste

# Figure D1 Municipal Solid Waste



# ATTACHMENT E



### **ATTACHMENT E.1**

Emissions to Atmosphere

### Attachment E.1 Emissions to Atmosphere

The potential emissions to the atmosphere from the facility include dust, traffic emissions and odours. Sections 11 and 12 of the EIS, which accompanies this application, describes the emissions.

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### **ATTACHMENT E.2**

Emissions to Surface Water

### Attachment E.2 Emissions to Surface Water

There will be no surface water discharge to an on-site water course. Surface water emissions, which include rainwater run-off from paved and roof areas, which will be discharge to the existing storm water sewer that serves the adjoining Commercial Park. The emissions to the surface water drainage system are described in Sections 5.3 and 9 of the EIS that accompanies this application.

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### ATTACHMENT E.3

Emissions to Sewers

### Attachment E.3 Emissions to Sewers

The emissions to sewer will include:-

- sanitary waste water from the administration building;
- floor washwater from the section of the Main Building that will handle mixed waste;
- washwater from the vehicle wash, and
- surface water run-off from the plant refuelling area

Section 5.14 of the EIS, which accompanies the application, describes the nature of all the emission to sewers.

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### ATTACHMENT E.4

Emissions to Groundwater

### Attachment E.4 Emissions to Groundwater

There will be no direct or indirect emissions to groundwater. An assessment of the ambient hydrogeological conditions at the site and the impact of the facility on groundwater are included in Section 8.4 of the EIS that accompanies this application.

Consent for inspection purposes only any other use.

### ATTACHMENT E.5

Noise Emissions

### Attachment E.5 Noise Emissions

The facility activities will be a source of noise emissions. The potential noise sources are described in Section 13 of the EIS that accompanies this application.

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## ATTACHMENT E.6

Environmental Nuisances

### Attachment E.6 Environmental Nuisances

The facility is a potential source of environmental nuisances (bird, litter, dust and vermin). These are described in Section 5 of the EIS that accompanies this application. The proposed control methods that will be applied to minimise the risk of these nuisances occurring are also described in Section 5.

Consent for inspection purposes only any other use.

# ATTACHMENT F

Control & Monitoring use.

### **ATTACHMENT F.1**

Treatment, Abatement and Control Systems

### Attachment F.1 Abatement and Control System

There will be no direct or indirect routine emissions to groundwater from the facility. The control measures incorporated into the design and operation of the facility to minimise the risk of emissions to groundwater as a result on incidents are described in Section 8.4 of the EIS that accompanies this application.

The abatement and control measures for surface water and sewer emissions are described in Section 9.4 and 5.14 of the EIS which accompanies the application. The abatement and control measures for emissions to air are described in Sections 11.4 and 11.5 of the EIS that accompanies this application. The abatement and control measures for noise emissions are described in Section 13.4 of the EIS that accompanies this application.

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### ATTACHMENT F.2

Monitoring & Sampling Points

### Attachment F.2 Air Monitoring & Sampling Points

It is proposed to carry out dust monitoring at the facility once per annum when the site is operational. It is not anticipated that dust will be a significant issue at the facility. There is no operational reason for any significant seasonal variation in dust generated at the site. It is proposed to use the three monitoring locations shown on Drawing No. F1.

Daily site inspections will monitor the presence of odours at the perimeter of the site on an on-going basis.

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### ATTACHMENT F.3

Surface Water

### Attachment F.3 Surface Water Monitoring

Surface water will be discharged to the municipal storm sewer at the location shown on Drawing No. D1080-D2. The discharge will be monitored annually at location SW-1 as shown on Drawing No. F1

The proposed ranges of parameters are: -

- Total Nitrogen,
- Total Ammonia,
- Biochemical Oxygen Demand,
- Chemical Oxygen Demand,
- Electrical Conductivity,
- pH,
- Temperature.



### ATTACHMENT F.4

Sewer Discharge

### **Attachment F.4** Sewer Discharge

Discharges to the foul sewer will include sanitary and sink wash water and washwater from the vehicle wash bay, floor wash water from the MRTF and the runoff from the refuelling area. The quality of the sanitary and sink wastewater discharge will be similar to domestic discharges and therefore it is not proposed to monitor this discharge.

It is proposed to monitor the discharge to the foul sewer from the vehicle washbay and refuelling area and the floor wash down. The discharges will be monitored at annual intervals at locations SE1 and SE2 as shown on Drawing No. F1.

The proposed ranges of parameters are: -

- Total Ammonia, •
- Biochemical Oxygen Demand, ٠
- Consent of copyright owner required for any other use. Chemical Oxygen Demand,
- Electrical Conductivity, ٠
- pН, •
- Temperature, •
- Suspended Solids.

#### **ATTACHMENT F.5**

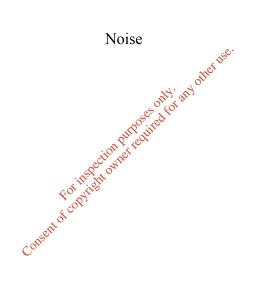
Groundwater Monitoring

### Attachment F.5 Groundwater Monitoring

There will be no direct or indirect emissions to groundwater from the facility and therefore no groundwater monitoring is proposed.

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#### **ATTACHMENT F.6**



#### Attachment F.6 Noise

It is proposed to conduct a noise survey annually at the locations shown on Drawing No. F1 including two noise sensitive locations to the north and south of the site. It is not anticipated that there will be any seasonal variation in site operations including the use of site plant and equipment.

Consent for inspection purposes only any other use.

## **ATTACHMENT G**

Resources Use & Energy Efficiency

#### ATTACHMENT G.1

Raw Materials & Energy

#### Attachment G.1 Raw Materials and Energy

With the exception of the wastes described in Section E of the application form, the other materials, intermediates and products that may be used on-site include diesel, engine and hydraulic oil for the plant, water and electricity. The estimated quantities of raw materials and energy consumption at the facility are presented in Section 17.5 of the EIS which accompanies the application.

Energy will be used efficiently in the carrying out of proposed activities. Necessary measures will be taken to ensure limited consequences for the environment from accidents or the permanent cessation of activities at the site.

Consent of copyright owner required for any other use.

ACHMENT\_ Materials Handling Materials Handling recommenced for any other way of the second of the se

#### ATTACHMENT H.1

Waste Types & Quantities Waste Types & Quantities

#### Attachment H.1 Waste Types & Quantities

The waste types and maximum volumes that will be accepted at the facility are shown on Table H.1. It is estimated that in the initial year of operation approximately 60,000 tonnes will be accepted, and that this will increase to 90,000 tonnes over the following 6 to 7 years. The actual rate of increase will depend on market conditions.

Maximum Capacity*
30,000
30,000
30,000
90,000
e estimate for the quantity of
Ses OFOT SHY

Table H.1	Total Annual	Waste	Inputs
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#### **EWC Codes:**

It is not possible to provide accurate estimates for the quantity of wastes that will be handled in the individual EWC code. The actual quantities handled in any one year will be reported in future Annual Environmental Reports. Size EWC codes for the wastes that will be accepted consent of copyr are.

#### **Proposed EWC Codes**



#### Code Description

#### 15 01 packaging (including separately collected municipal packaging waste)

- 15 01 01 paper and cardboard packaging
- 15 01 02 plastic packaging
- 15 01 03 wooden packaging
- 15 01 04 metallic packaging
- 15 01 05 composite packaging
- 15 01 06 mixed packaging
- 15 01 07 glass packaging
- 15 01 09 textile packaging
- 17 01 07 Mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06\*
- 17 02 01 Wood
- 17 05 04 Soil and stones other than those mentioned in 17 05 03\*
- 17 06 04 Insulation materials other than those mentioned in 17 06 01\* and 17 06 03\*
- Gypsum-based construction materials other than those mentioned in 17 08 01\* 17 08 02

17 09 04 Mixed construction and demolition wastes other than those mentioned in 17 09 01\*, 17 09 02\* and 17 09 03\*

#### 17 04 metals (including their alloys)

- 17 04 01 Copper, bronze, brass
- 17 04 02 Aluminium
- 17 04 03 Lead
- 17 04 04 Zinc
- 17 04 05 Iron and steel
- 17 04 06 Tin
- 17 04 07 Mixed metals

# 19 12 wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified

- 19 12 01Paper and cardboard
- 19 12 05 Glass
- 19 12 07 Wood other than that mentioned in 19 12 06\*
- 19 12 09 Minerals (for example sand, stones)
- 19 12 12 Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11\*

#### 20 01 separately collected fractions (except 15 01)

20 01 01	Paper and cardboard	. (

- 20 01 02 Glass
- 20 01 36 discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
- 20 01 38 Wood other than that mentioned in 20 01 37\*
- 20 01 39 Plastics
- 20 01 40 Metals

#### 20 03 other municipal wastes

- 20 03 01 Mixed municipal wastes
- 20 03 07 Bulky waste

#### **ATTACHMENT H.2**

Waste Acceptance Procedures

#### Attachment H.2 Waste Acceptance Procedures

#### Waste Acceptance

Section 5.6 of the EIS, which accompanies the application, describes the proposed waste acceptance procedures.

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#### ATTACHMENT H.3

Waste Handling

### Attachment H.3 Waste Handling

The proposed waste handling and site operational procedures are described in Section 5.7 of the EIS which accompanies this application.

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#### ATTACHMENT H.4

Waste Arisings

#### Attachment H.4 Waste Arisings

The facility will generate small volumes of office type wastes. Greenstar will operate a source segregation policy to maximise the recovery of potential recyclable materials from these waste streams. All recovered materials will be transferred off-site to recovery/recycling facilities. Section 5.15 of the EIS which accompanies this application describes the waste arisings.

Details on the waste water that will be generated are described in detail in Section 5.14 of the EIS which accompanies the application.

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### ATTACHMENT I

Existing Environment & Impact of the Facility

#### ATTACHMENT I.1



#### Attachment I.1 Air

A description of the ambient air quality at the site is presented in Section 11 of the EIS that accompanies this application. The assessment included dust,  $PM_{10}$ , Volatile Organic Compounds (VOC) and Hydrogen sulphide, sulphur dioxide, nitrogen dioxides, BTEX and carbon monoxide. An assessment of the atmospheric emissions is included in Sections 11 and 12 of the EIS, which accompanies the application. The assessment includes atmospheric modelling of odour emissions.

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### ATTACHMENT I.2

Surface Water Surface Water of the section purpose only any other use.

#### Attachment I.2 Surface Water

The site activities will not result in any direct discharge to a surface water course. An assessment of the surface water drainage system at the site and its environs including details of proposed mitigation measures (oil interceptors) is presented in Section 5.13 of the EIS that accompanies this application.

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#### ATTACHMENT I.3



#### Attachment I.3 Sewer

An assessment of the proposed discharge to the sewer drainage system is presented in Section 5.14 of the EIS that accompanies this application.

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#### ATTACHMENT I.4

Hydrogeology Hydrogeology of the test of test

### Attachment I.4 Ground and Groundwater

There will be no direct or indirect emissions to ground or groundwater. An assessment of the local geology and hydrogeology is presented in Section 8.3 of the EIS that accompanies this application.

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#### ATTACHMENT I.5

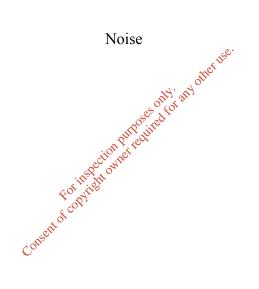
Ground Contamination

#### Attachment I.5 Ground Contamination

The facility will be developed on a greeenfield site. There is no record of any previous landuse that could have resulted in ground contamination. There will be no direct or indirect long-term emissions to ground or groundwater. The provision of extensive paved areas provided with surface water collection drains, and secondary containment of the oil storage area minimises the potential for short term direct or indirect discharges to ground or groundwater in the event of spill or leak.

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#### ATTACHMENT I.6



#### Attachment 1.6 Noise

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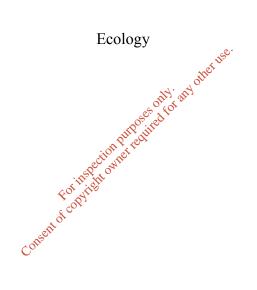
A baseline noise assessment was carried out to determine the ambient noise environment at the site and is described in Section 13.2 of the EIS which accompanies the application.

i.6b

Noise prediction modelling was carried out in order to assess the potential impacts of noise associated with the facility. The assessment identified the need to provide noise control measures at the site. The results of this assessment and details of the proposed control measures are presented in Section 13.3 and 13.4 of the EIS that accompanies this application.

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### ATTACHMENT I.7



### Attachment I.7 Ecology

An ecology survey was carried out. The findings are presented in Section 10 of the EIS that accompanies the application.

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### **ATTACHMENT J**

Accident Prevention & Emergency Response

#### ATTACHMENT J.1

Accident Prevention & Emergency Response

#### Attachment J.1 Accident Prevention & Emergency Response

The on-site potential for unauthorised or unexpected releases to the environment is considered to be confined to incidents, such as fuel spill or a fire. The facility design incorporates measures to contain and allow effective clean up of fuel spills and leaks. It also allows for the retention of firewater run-off within the site boundaries. Further information on the contingency measures that will be provided are presented in Section 5.10 and 5.21 of the EIS that accompanies this application.

Greenstar will prepare an Emergency Response Procedure, which will be forwarded to the Agency for approval before operations begin. The procedure will ensure a rapid response to any incident by trained staff and minimise the impact on the environment of any associated emissions.

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## ATTACHMENT K

Remediation, Decommissioning, Restoration and Aftercare

## ATTACHMENT K.1

Decommissioning Decommissioning

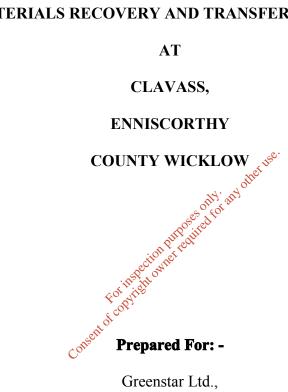
## Attachment K.1 Decommissioning

There is no short or long term proposal to shut down or decommission any element of the facility. In the unlikely event that the facility has to close, the shut down will be carried out in accordance with the measures set out in the Decommissioning Plan, which will be prepared prior to the start of licensable activities.

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## **DECOMMISSIONING PLAN FOR**

## MATERIALS RECOVERY AND TRANSFER FACILITY



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

### Prepared By: -

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

November 2007

November 2007 (JOC/MW)

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## 1. INTRODUCTION

The Decommissioning Plan is based on the following: -

- A review of the types of activities to be carried out on the site, including waste handling and recovery operations;
- Identification of potential hazards, including an evaluation of the raw materials and waste products that typically will be stored on-site, site hydrogeology, sewer and bund integrity;
- Identification of control measures to prevent incidents;
- Identification of all items of plant and other materials, including buildings that may be decommissioned, rendered safe or removed from site for disposal or recovery in the event of closure of the facility;
- Identification of all possible on-site locations where cleaning, decontamination or remediation works may be required in the event of decommissioning to prevent environmental pollution.

### 2.1 **Proposed Site Operations**

## 2.1.1 Site Layout

The site is approximately 3 acres. The development will comprise the construction of a 3,150m<sup>2</sup> MRTF Building, 270m<sup>2</sup> Administration Building, double weighbridge, vehicle wash area, plant refuelling area, ESB Substation, 1420m<sup>2</sup> of concrete hardstand, an odour treatment plant, a site security fence and landscaping measures.

## 2.1.2 Waste Types and Volumes

The waste types and maximum volumes that will be accepted at the facility are shown on Table 2.1. It is estimated that in the initial year of operation approximately 60,000 tonnes will be accepted and that this will increase to 90,000 toppes over the following 6 to 8 years. The actual rate of increase will depend on market conditions. Net Portion 1991

Table 2.1	Total Annual Waste Inputs	: on pu
	o	in the sub

Waste Type	Maximum Capacity*		
C&I	30,000		
Household	30,000		
C & D	30,000		
Total	90,000		

\*Subject to Market Conditions

## 2.1.3 Waste Acceptance Procedures

Only non-hazardous, Household, C & I and C & D waste will be accepted at the facility. All wastes will be subject to the following waste inspection procedures, which are similar to those already successfully applied at other Greenstar facilities, to minimise the risk of acceptance of unsuitable materials.

The waste will be delivered to the facility in enclosed rear end loaders, curtain sided trailers and covered open top trailers and skips. All waste delivery vehicles will be obliged to enter onto the weighbridge, where they will be weighed, any accompanying documentation checked and the contents of the vehicle inspected by Greenstar personnel to confirm its suitability. The vehicle will then drive from the weighbridge to a designated off-loading area inside the MRTF Building, where it will be off-loaded.

Any waste load, which upon inspection at the weighbridge is deemed not to be suitable, will not be accepted. In such event Greenstar personnel will record the name of the delivery contractor, the driver, the registration number of the vehicle and the nature and origin of the waste. The vehicle driver will be instructed to return the waste to the producer. Records of any such incidents will be maintained on site and reported to Wexford County Council and the EPA.

Any materials identified as not being suitable following off loading will, where practical, be loaded back onto the delivery vehicle for immediate removal off-site. If this is not possible, the material will be removed to a designated quarantine area inside the MRTF Building, where it will be stored pending its removal off site by either, the waste producer, or the waste contractor. Should the producer and/or contractor refuses to remove the waste Greenstar will ensure that it is removed off-site and disposed of at an appropriate facility as soon as Greenstar will maintain records of the waste type, quantity, and ultimate possible. Consent of copyright owner disposal/treatment facility.

#### 2.2 **Material Storage**

All waste handling, processing and storage will be carried out inside the Building.

## 3. SCOPE OF THE DECOMMISSIONING PLAN

## 3.1 Scope of the Plan

This Plan sets out the actions to be taken by Greenstar in the unlikely event of facility shut down, or a planned cessation for a period of greater than six months of all or part of the site involved in the licensed activity.

Should either of the above conditions occur Greenstar will decommission, render safe or remove for disposal/recovery, all materials, waste, plant and equipment that may result in environmental pollution. The methodology used to determine the areas that must be addressed in the plan is outlined in Section 4.

## 3.2 Criteria Which Determines Successful Implementation

Successful decommissioning will only be complete when all buildings, equipment, materials, wastes or any other materials, which could result in environmental pollution, are removed from the site and recycled, recovered of disposed of in accordance with all regulations in force at the time. The programme to achieve the criteria set out in the plan is outlined in Section 5.

### 4. **AREAS ADDRESSED BY THE PLAN**

The following aspects of the proposed facility operation were assessed.

### 4.1 **Materials**

It is anticipated that any shutdown of all or part of the site operations would be preceded by a scaling down of activities therefore further reducing the quantities of materials, particularly oils and fuel to be dealt with

It may be possible to return some materials to the suppliers e.g. diesel, engine and hydraulic oils to the suppliers for resale or reuse. The remaining materials may have to be disposed of as waste, some of which may be deemed hazardous waste, due to their composition e.g. oils. Such materials will be disposed of off-site in accordance with appropriate waste management regulatory requirements and facility waste management procedures.

#### 4.2 **Equipment & Processes**

HOT INSPECTION PERFEC The pieces of plant include the trommel, loading shovel, baler, air compressor, grabs, shredder, conveyor, bag opener, forklift and yardsweeper. All of the plant would be suitable for use in other similar facilities. Given the nature of the waste to be handled at the facility, none of the items of plant equipment intended for resale or disposal would require specialist decontamination prior to removal off-site.

### 4.3 **Environmental Monitoring Results & Reports**

Environmental monitoring will be carried out in accordance with the conditions set in the Waste Licence and will include routine monitoring of sewer, dust and noise emissions. The monitoring programmes will be designed to identify any long term impact associated with the operation of the facility so as to allow effective remedial action and prevent or minimise environmental pollution.

## 4.4 Environmental Incidents

The site has been designed to minimise the impact of any environmental incident that may arise e.g. spills/leaks of oils/chemicals. Any environmental incidents that do occur will be thoroughly investigated and where necessary remedial measures will be implemented. A detailed review of all historic incidents will be completed as part of the decommissioning plan to assess the potential for residual soil contamination arising from such incidents.

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## 5. IMPLEMENTATION PROGRAMME

## 5.1 Consumable Materials

All materials and wastes will be stored in the designated areas. In the event of closure materials and waste will either be returned to the supplier, or be disposed or recovered by a licensed waste disposal contractor. All wastes will be removed for recovery/treatment/disposal at a licensed waste management facility.

Table 5.1 below presents the maximum quantities of consumable materials, broken down by generic types that it is anticipated would need to be removed off-site in the event of activation of the plan. The actual quantities may be smaller as any shutdown of all or part of the facility would most likely be preceded by a scaling down of activities that would allow a stage reduction in inventory.

# Table 5.1Maximum Quantities of Consumable Materials to be Removed Off-Site

a Purol			
Resource etternet	Quantities		
Diesel Oil of	5000 litres		
Hydraulic Oil	50 litres		
Disinfectant	10 litres		
Odour Neutralisers	15 litres		
Engine Oil	40 litres		

The largest contributor to the above is diesel which could be returned to the supplier.

## 5.2 Equipment & Process Materials

In the event of activation of the plan the plant equipment will be either sold for operational use or for scrap at an approved waste recycling/recovery facility. Following the removal offsite of all waste and finished product the waste processing and storage areas will be washed down.

## 5.3 Environmental Incidents

Any incidents that occur will be dealt with in accordance with the conditions of the Licence and the requirements of the Agency.

## 5.4 Environmental Monitoring Results & Reports

The environmental monitoring carried out by Greenstar as part of the licence conditions will identify if any investigations or post closure monitoring is required to ensure that the facility poses no continuing risk to the environment. The baseline data compiled as part of the Waste Licence application indicates that the site presents no such risk. This will be reviewed based on monitoring data obtained during the operational period.



### 6. **TEST PROGRAMME & VALIDATION REPORT**

### 6.1 **Test Programme**

The monitoring and reporting requirements, which will be set out in the Waste Licence, will be complied with until the licence is surrendered to the Agency. The monitoring will identify, if any environmental pollution has occurred during the lifetime of the Waste Licence. If the monitoring programme or the investigation of any future environmental incident identifies that any such contamination has occurred, a test programme will be set up to identify the nature and scale of any associated environmental pollution.

### 6.2 Validation Report

Following implementation of the plan, Greenstar will produce a validation report that This report will confirm that there is no demonstrates its successful implementation. continuing risk of environmental pollution to the environment from the site. Consent for inspection purple

This report shall address: -

- 1. Disposal of raw materials,
- 2. Disposal of wastes,
- 3. Decommissioning of plant and equipment,
- 4. Disposal of obsolete equipment,
- 5. Results of monitoring and testing,
- 6. The need for on-going monitoring or investigations.

This report will be submitted to the Agency within three months of execution of the Plan.

### 7. **FINANCIAL PROVISIONS**

It is estimated that the entire decommissioning of plant and equipment, removal/disposal of materials, testing to evaluate the successful implementation of the plan and preparation of a final validation report to complete the Decommissioning Plan will cost in the region of €50,000.00.

This sum includes for the following: -

- 1. Disposal of consumable materials,
- 2. Disposal of unprocessed wastes,
- 3. Decommissioning of plant and equipment,
- 4. Disposal of obsolete equipment,
- anyotheruse 5. Monitoring and testing to ensure compliance with licence conditions, the owner real
- 6. Preparation of reports.

The above figure is based on current disposal costs and waste quantities that would be generated in the event of activation of this plan. It will be possible to recuperate some of the costs through the sale of plant.  $\mathcal{O}^{\mathcal{O}}$ 

# ATTACHMENT K.2

Aftercare Management Plan

## Attachment K.2 Aftercare Management Plan

The majority of the site will be either paved or occupied by buildings with minor landscape works at the site boundary. It is not anticipated that the waste processing activities will cease in the medium to long term. In the unlikely event that the facility shuts down it will be decommissioned in accordance with a Decommissioning Plan, which will be agreed with the Agency. Post closure measures for the monitoring and maintenance of the building and the restored areas will be agreed with the Agency.

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# ATTACHMENT L

Statutory Requirements use.

## ATTACHMENT L.1

Section 40 WMA

## Attachment L.1 Section 40 WMA

Details of the emissions from the facility are presented in Section s 5, 9, 11, 12 and 13 of the EIS which accompanies this application. The emissions will not result in the contravention of any relevant standard or emission limit prescribed under enactment. The proposed development is consistent with the Joint Waste Management Plan for the South East Region 2006 - 2011.

The proposed site activities are based on best management practice and take into consideration the BAT Guidance Note for the Waste Sector: Waste Transfer Activities published by the EPA. The facility operations, when carried out in accordance with licence conditions, will not cause environmental pollution. The facility manager and deputy will complete the FAS Waste Management Training Programme, or equivalent agreed with the Agency, prior to the start of waste acceptance.

Energy will be used efficiently in the carrying out of proposed activities. Necessary measures will be taken to ensure limited consequences for the environment from accidents or the permanent cessation of activities at the site.

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## ATTACHMENT L.2A

Offences & Convictions

## Attachment L.2A Offences and Convictions

Greenstar Ltd has not been convicted under the Waste Management Acts 1996 to 2003, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.

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# ATTACHMENT L.2B

Technical Competence & Site Management

## Attachment L.2B Technical Competence and Site Management

Details of the proposed facility management structure are provided below: -

- Facility Manager,
- Deputy Facility Manager,
- Site Foreman,
- Weighbridge Operator,
- General Operatives,
- Drivers,
- Administration Staff.

Details of the final staff numbers and positions will be submitted to the Agency before startup of the facility. The facility manager and deputy will complete the FAS Waste Management Training Programme, or equivalent agreed with the Agency, prior to the start of waste acceptance.

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## ATTACHMENT L.2C

Financial Provision

## Attachment L.2C Financial Provision

Greenstar Ltd. is a wholly owned subsidiary of Greenstar Recycling Holdings Ltd. and has powers of attorney over all Greenstar entities. Recent audited accounts for Greenstar Recycling Holdings for 2006 are included in this attachment. In the extremely unlikely event of the unexpected closure and/or bankruptcy of the facility the decommissioning plan approved by the Agency will be implemented. Greenstar will provide the Agency with the appropriate form of guarantee for the amount required to decommission the facility by way of a bond or other financial instrument, as may be specified by the Agency.

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## Directors' report and financial statements

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## Directors' and other information

Directors	<ul> <li>M. Wynne (Non-Executive Chairman) (British)</li> <li>J. Barry (Non-Executive Deputy Chairman)</li> <li>A.G. Bailey</li> <li>S. Cowman</li> <li>J. Dempsey</li> <li>G. Dennison</li> <li>J. Dixon (Non-Executive Director)</li> <li>M. King (Non-Executive Director)</li> <li>W. Kitchen</li> <li>M. Walsh (Non-Executive Director)</li> </ul>
Registered office	Burton Court Burton Hall Road Sandyford Dublin 18
Secretary	E. Bolgertor at
Bankers For inspector	Sandyford Dublin 18 E. Bolgon Man of the trace of the difference of the difference Marked Sank of Ireland Bank of Scotland (Ireland) Irish Intercontinental Bank Ulster Bank Barclays Bank Rabo Bank
Auditor	KPMG 1 Stokes Place St Stephen's Green Dublin 2
Solicitors	Arthur Cox Earlsfort Centre Earlsfort Terrace Dublin 2
	Whitney Moore Wilton Park House Wilton Place Dublin 2

## Directors' report

The Directors have pleasure in submitting their annual report for Greenstar Holdings Limited ("the Company") and its subsidiaries (together "the Group") together with the audited financial statements for the fifteen month period ended 31 March 2006.

### Principal activity and business review

The Group remains committed to the delivery of superior returns to its shareholders over the medium term. The Group, through the Company's subsidiaries, provides services and infrastructure at each level of the waste management hierarchy. Throughout the 15 month period, the Group continued to make significant progress towards its objective of becoming Ireland's leading provider of integrated waste management solutions, and providing national coverage in the Republic of Ireland.

The Group changed its year end from 31 December to 31 March to be in line with the year end of its parent company NTR plc.

### Performance for the period and future developments

Revenue for the fifteen month period ended 31 March 2006 increased by 60% to  $\in$ 131.6 million (year ended 31 December 2004:  $\in$ 81.9 million). Profit for the period grew by 27% to  $\in$ 12.6 million (2004:  $\in$ 9.9 million). The main driver of the increase in revenue related to the operation of two additional landfills and also the expansion of the collection and transfer business through organic growth and acquisitions. The reduction in net operating margin from 17.4% to 14.7% reflects a softening of market prices amid increased competition and the impact of continued investment in management systems and infrastructure, necessary to support a fully integrated waste management business.

During the period, the Group invested significantly in residual landfill development, recycling, materials separation and bio-waste treatment activities. Total capital expenditure in the year exceeded  $\in$ 50.0 million. The Group's new state-of-the-arr landfill in East Galway was completed in December 2005 and commenced operations in January 2006. Our KTK and Knockharley residual landfills continued to perform strongly throughout the period. During the period the Group continued to make substantial investments in its operations, which included provision for compliance with pay by use regulations and a new automated recycling processing facility.

The Group will continue to make substantial investment and has a number of planning applications currently under consideration for additional infrastructural facilities around the country. Construction on a Wicklow landfill commenced in May 2006 and is expected to be ready for commercial operation in early 2007. A state of the art materials recovery facility at Millennium Park in North Dublin to process commercial, industrial and construction waste will open in autumn 2006. The Group will continue to develop technology partnerships in the bio-waste area in readiness for the full implementation of the European landfill and bio-waste directives.

The Directors will continue to develop and enhance the current activities of the business and consider other waste management opportunities that may arise.

## Directors' report (continued)

### Principal risks and uncertainties and key performance indicators

Under Irish Company law (Statutory Instrument 116.2005 – European Communities (International Financial Reporting Standards and Miscellaneous Amendments) Regulations 2005), the Group and Company are required to give a description of the principal risks and uncertainties faced, as well as a listing of the key performance indicators used to monitor performance. The Company is the holding company for the Group, and thus the risks below apply to both the Company and the Group.

This section describes the key risks considered by the Directors to be applicable. However, it is not an exhaustive list of all possible risks associated with the Group's operations.

The principal risks and uncertainties that the business faces are as follows:

- 1 The profitability of the business is highly sensitive to landfill pricing. Landfill prices are subject to normal market fluctuations and in particular a short term softening in pricing may be expected as certain landfill facilities reach the end of their life cycle resulting in pressure to fill remaining unused void space prior to closure.
- 2 The continued growth of the business is, in part, dependent on securing planning and licencing for new facilities and for facility extensions. The planning and licencing process is of it's nature uncertain given that decisions lie with external agencies, namely an Bord Pleanála and the Environmental Protection Agency ("EPA").
- 3 The odour issues inherent in the materials that the Group handles, mean that odour control is an important issue for the Group in terms of both the cost of compliance and the risk of liability to prosecution over real or alleged infringements
- real or alleged infringements
  The issue of increased Government control over the flow of waste disposal, whereby Local Authorities are seeking to direct waste to specific facilities, poses a significant threat to the competitive landscape, and could act as a significant deterrent to future private sector investment.

The key performance indicators focused on by management are:

	2006	2004
	(15 months)	(12 months)
Revenue	€131.5m	€81.9m
EBITDA	€40.0m	€25.8
EBITDA margin	30%	31%
EBIT	€19.5m	€14.2m
EBIT margin	15%	17%
Profit for the period	€12.6m	€9.9m
EBITDA: interest	11.0	13.6
Net debt: EBITDA	2.3	3.0
Tonnage	822,539	532,907
Revenue per tonne	€160	€154

Key performance indicators are in line with Group targets.

## Directors' report (continued)

### **Research and development**

The Group did not engage in any research and development activities during the period.

### Financial risk management policies

The main financial risks affecting the Group are public and employee liability, and credit and interest risk.

### **Public and employee liability**

The Group holds insurance cover for public and employee liabilities of  $\in 6.5$  million and  $\in 13.5$  million respectively, for each and every claim. The Group also has top up insurance.

### Credit risk

The Group's objective is to ensure there are no significant risks to the Group from failure by customers to pay. To reduce this exposure, all landfill customers, which represent the largest debtor values, are insured for credit risk. In addition, all customers must undergo a credit check before commencement of services. For all other customers, the directors are of the opinion that the Group policy for provision against bad debts My any provides sufficient cover against any significant loss.

*Interest risk* For details on interest risk and the Group hedging policy, please refer to note 21 to the consolidated financial statements.

### **Directors and Secretary**

The Directors and Secretary who served during the period and subsequent period to date were: Consent

M. Wynne

J. Barry

A.G. Bailey

S. Cowman

J. Dempsey (appointed 17 January 2005)

- G. Dennison
- J. Dixon (appointed 21 April 2005)

E. Joyce (appointed 17 January 2005) (resigned 11 July 2006)

M. King

T. Kirwan (resigned 31 January 2005)

W. Kitchen (appointed 17 January 2005)

- J. Mullins (appointed 17 January 2005) (resigned 1 March 2006)
- M. Walsh

E. Bolger (Secretary)

## Directors' report (continued)

### Directors' and Secretary's interests

The interests of the Directors and Secretary who held office at 31 March 2006 in the share capital of NTR plc (the ultimate parent company) at 31 March 2006 and 31 December 2004 were as follows:

Shares	31 M 20	larch D06		cember )04
	Ordinary Shares* of €0.00125 each	<b>Options</b> *	Ordinary Shares of 0.01 each	Share Options
J. Barry M. King M. Walsh	2,913,737 1,515,502 966,019		209,908 141,602 61,459	- - -
E. Bolger (Secretary)	- The	ç**	-	30,000

\* On 5 June 2005 there was an 8 for 1 split of NTR plc ordinary shares.

\*\* During the period, Eamon Bolger exercised the 240,000 share options which had been awarded to him to that date. The share price of the shares on the date of exercise was €4.45, and the exercise price was €0.90.

The interests of the Directors and Secretary who held office at 31 March 2006 in the share capital of the Company at 31 March 2006 and 31 December 2004 (or date of appointment if later) were as follows:

Share options	At 31 December , 00 2004 dur	Forfeited ing period	At 31 March 2006	Exercise price (€)	Exercise dates
A.G. Bailey	40,000	-	40,000	1	2006-2010
S. Cowman	60,000	(300)	59,700	1	2006-2010
J. Dempsey	30,000	(469)	29,531	1	2006-2010
E. Joyce	30,000	(281)	29,719	1	2006-2010
W. Kitchen	30,000	(300)	29,700	1	2006-2010

### Shareholdings

NTR plc is the beneficial owner of 3,800,000 "A" Ordinary Shares and 1 "C" Ordinary Share. Celtic Utilities Limited (of which NTR plc owns 76.95%) is the beneficial owner of 3,800,000 "B" Ordinary Shares.

### Subsidiaries

The information required by the Companies Acts, 1963 to 2005, in relation to subsidiary undertakings is set out in Note 24 to the consolidated financial statements.

Directors' report (continued)

### Post balance sheets events

There have been no significant post balance sheet events which require disclosure in the financial statements.

### **Political donations**

The Group made no political donations during the period (12 month period ended 31 December 2004: €Nil).

### Accounting records

The Directors believe that they have complied with the requirements of section 202 of the Companies Act, 1990 with regard to books of account by employing accounting personnel with appropriate expertise and by providing adequate resources to the financial function. The books of account of the Company are maintained at Unit 6, Ballyogan Business Park, Ballyogan Road, Sandyford, Dublin 18.

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Auditor In accordance with Section 160 (2) of the Companies Act 1963, the auditor, KPMG, Chartered Consent of copyright owner requi Accountants, will continue in office.

On behalf of the board

A.G. Bailey Director

18 October 2006

# Statement of Directors' responsibilities for the period ended 31 March 2006

The directors are responsible for preparing the Annual Report and the Group and Company financial statements, in accordance with applicable law and regulations.

Company law requires the directors to prepare Group and Company financial statements for each financial year. Under that law the directors have elected to prepare the Group financial statements in accordance with International Financial Reporting Standards ('IFRSs') as adopted by the EU and to prepare the Company financial statements in accordance with Generally Accepted Accounting Practice in Ireland, comprising applicable law and the accounting standards issued by the Accounting Standards Board and promulgated by the Institute of Chartered Accountants in Ireland.

The Group financial statements are required by law and IFRSs as adopted by the EU to present fairly the financial position and performance of the Group; the Companies Acts 1963 to 2005 provide, in relation to such financial statements, that references in the relevant part of that Act to financial statements giving a true and fair view are references to their achieving a fair presentation.

In preparing each of the Group and Company financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group and the Company will continue in business.

The directors are responsible for keeping proper books of account that disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that its financial statements comply with the Companies Acts 1963 to 2005. They are also responsible for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the Group's website. Legislation in the Republic of Ireland governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

On behalf of the board

A.G. Bailey *Director* 

S. Cowman *Director* 

## Independent auditor's report to the members of Greenstar Holdings Limited

We have audited the Group and Company financial statements (the "financial statements") on pages 10 to 78 of Greenstar Holdings Limited for the period ended 31 March 2006, which comprise the Consolidated Income Statement, the Consolidated Balance Sheet, the Consolidated Statement of Cash Flows, the Consolidated Statement of Recognised Income and Expense and the related notes together with the Company Balance Sheet and related notes. These financial statements have been prepared under the accounting policies set out therein.

This report is made solely to the Company's members, as a body, in accordance with section 193 of the Companies Act 1990. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work for this report, or for the opinions we have formed.

### Respective responsibilities of directors and auditor

The directors' responsibilities for preparing the Annual Report and the Group financial statements in accordance with applicable law and International Financial Reporting Standards (IFRSs) as adopted by the EU, and for preparing the Company financial statements in accordance with applicable law and the accounting standards issued by the Accounting Standards Board and promulgated by the Institute of Chartered Accountants in Ireland (Generally Accepted Accounting Practice in Ireland), are set out in the Statement of Directors' Responsibilities on page 7.

Our responsibility is to audit the financial statements in accordance with relevant legal and regulatory requirements and International Standards on Auditing (UK and Ireland).

We report to you our opinion as to whether the financial statements give a true and fair view and have been properly prepared in accordance with the Companies Acts 1963 to 2005 and whether, in addition, the Group financial statements have been properly prepared in accordance with Article 4 of the IAS Regulation. We also report to you our opinion as to whether: proper books of account have been kept by the Company; whether at the balance sheet date, there exists a financial situation requiring the convening of an extraordinary general meeting of the Company; and whether the information given in the Directors' Report is consistent with the financial statements. In addition, we state whether we have obtained all the information and explanations necessary for the purposes of our audit, and whether the Company balance sheet is in agreement with the books of account.

We also report to you if, in our opinion, any information specified by law regarding Directors' remuneration and Directors' transactions is not disclosed and, where practicable, include such information in our report.

We read the Directors' Report and consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies within the financial statements. Our responsibilities do not extend to any other information.

## Independent auditor's report to the members of Greenstar Holdings Limited (continued)

### **Basis of audit opinion**

We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) issued by the Auditing Practices Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgments made by the directors in the preparation of the financial statements, and of whether the accounting policies are appropriate to the Group's and Company's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overal adequacy of the presentation of information in Inspection purposes officer the financial statements. inspection pur

### Opinion

In our opinion:

- FOI the Group financial statements give a true and fair view, in accordance with IFRSs as adopted by the EU, of the state of the Group's affairs as at 31 March 2006 and of its profit for the period then ended;
- the Group financial statements have been properly prepared in accordance with the requirements of the Companies Acts, 1963 to 2005 and Article 4 of the IAS Regulation.
- the Company financial statements give a true and fair view, in accordance with Generally Accepted Accounting Practice in Ireland, of the state of the Company's affairs at 31 March 2006; and
- the Company financial statements have been properly prepared in accordance with the Companies Acts, 1963 to 2005.

We have obtained all the information and explanations which we consider necessary for the purposes of our audit. In our opinion proper books of account have been kept by the Company. The Company balance sheet is in agreement with the books of account.

In our opinion the information given in the Directors' Report is consistent with the financial statements.

The net assets of the Company, as stated in the Company balance sheet, are more than half of the amount of its called-up share capital and, in our opinion, on that basis there did not exist at 31 March 2006 a financial situation which under Section 40 (1) of the Companies (Amendment) Act, 1983 would require the convening of an extraordinary general meeting of the Company.

18 October 2006

Chartered Accountants Registered Auditor Dublin

	Notes	15 month period ended 31 March 2006 €'000	12 month period ended 31 December 2004 €'000
<b>Revenue, including share of joint venture</b> Less: share of joint venture's revenue		131,586 (482)	81,891
Group revenue		131,104	81,891
Cost of sales		(86,556)	(49,687)
Gross profit		44,548	32,204
Other operating income Administration expenses	2	1,013 (26,235)	30 (17,985)
Administration expenses         Operating profit before joint venture         Share of profit in joint venture         Profit before financing costs         Financial income         Financial expense         Profit before tax         Income tax expense         Profit for the period	aly: any of	19,326 19,326 219	14,249
Profit before financing costs	for	19,545	14,249
Financial income Financial expense	4 4	22 (3,531)	(1,882)
Profit before tax	5	16,036	12,367
Income tax expense	6	(3,404)	(2,442)
Profit for the period		12,632	9,925
Attributable to: Equity shareholders Minority interest	14	12,631 1	9,925
		12,632	9,925

Notes 1 to 28 form part of these consolidated financial statements.

On behalf of the board

A.G. Bailey	S. Cowman
Director	Director