patel tonra ltd
environmental solutions

For the Attention of
Waste Licensing (Applications) Unit
c/o Mr. Michael Owens
Environmental Protection Agency
PO Box 3000
Johnstown Castle Estate
Co. Wexford

Our Ref.: RG0201/WLA
Direct Dial: 01 8020523
Direct Fax: 01 8050525
Email: louise.odonnell@pateltonra.com

Date: 26th July 2011

Re.: Rehab Glassco Ltd.
Application to the Environmental Protection Agency for a Waste Licence *for* a Glass and Can Recycling Facility at an Existing Waste Management Facility *at* Unit 4, Osberstown Industrial Park, Caragh Road, Naas, Co. Kildare

Dear Sir,

Patel Tonra Ltd., Environmental Solutions, is acting for Rehab Glassco Ltd., under the instruction of Mr Zeki Mustafa, Managing Director of Rehab Glassco Ltd.

Please find enclosed documentation for the purposes of a Waste Licence Application for a Glass and Can Recycling Facility at an Existing Waste Management Facility at Unit 4, Osberstown Industrial Park, Caragh Road, Naas, Co. Kildare.

The facility is currently operating under Waste Facility Permit from Kildare County Council, and holds planning permission for this activity. As discussed at our pre-application meeting of 19th June 2011, the facility is a significant player in the Irish waste management/recycling sector, handling approximately 80% of Ireland's glass recycling.

The number of copies of enclosed documentation is as per the EPA *Instructions for Licence Applicants*.

	Hardcopy	Electronic
▪ Waste Licence Application, including Application Form, Attachments and Drawings	1 original + 1 copy	2 copies
▪ The complete newspaper in which the advertisement was placed	1 original	Not applicable
▪ Cheque for the application fee of €10,000, payable to the Environmental Protection Agency		

Please accept this letter as a declaration that the content of the electronic files on the accompanying CD-ROMs is a true copy of the original application form.

Patel Tonra Ltd., environmental consultants to Rehab Glassco Ltd., is nominated by Rehab Glassco Ltd. to make submissions in relation to this application and related matters on behalf of the company. The contact details for Patel Tonra Ltd. and for Rehab Glassco Ltd. are as follows:

For Patel Tonra Ltd.:

Ms Louise O'Donnell,
Director,
Patel Tonra Ltd., Environmental Solutions,
3f Fingal Bay Business Park,
Balbriggan,
Co. Dublin

Tel. 01 8020523
Email: louise.odonnell@pateltonra.com

For Rehab Glassco Ltd.:

Mr Zeki Mustafa
Managing Director
Rehab Glassco
Unit 4, Osberstown Industrial Park
Caragh Road
Naas
Co. Kildare

Tel. 01 6854400
Email: zeki.mustafa@rehabglassco.ie

If you have any further queries in relation to this matter please do not hesitate to contact me.

Yours sincerely,

Louise O'Donnell
Director, Patel Tonra Ltd.

Rehab Glassco

Application to the Environmental Protection Agency (EPA) for a Waste Licence

July 2011

Waste Licence Application for a Glass and Can Recycling Facility at an Existing Waste Management Facility

Unit 4
Osberstown Industrial Park
Caragh Road
Naas
Co. Kildare
Ireland

Application documentation prepared by:

patel tonra ltd
environmental solutions

Patel Tonra Ltd.,
Environmental Solutions
Tel. +353(0)1 8020520
www.pateltonra.com

Rehab Glassco

APPLICATION TO THE EPA FOR A WASTE LICENCE

July 2011

Glass/Can Recycling Facility

Osberstown, Naas, Co. Kildare

Prepared by:

patel tonra ltd environmental solutions

Patel Tonra Ltd.,
Environmental Solutions
Tel. +353(0)1 8020520
www.pateltonra.com

1 **APPLICATION FORM**

2 **ATTACHMENTS**

3 **PHOTOGRAPHS**

4 **APPENDICES**

5 **DRAWINGS**

Waste Licence Application Form

EPA Ref. Nº: *(Office use only)*	

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 2011.

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

CONTENTS

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 clearly 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 carefully 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 legible. 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,

LOCATION	Section B.1	
CHECKED	**Applicant** ☒	**Official** ☐

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

LOCATION	Section B.3	
CHECKED	**Applicant** ☒	**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	Section B.4	
CHECKED	**Applicant** ☒	**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	Section B.2	
CHECKED	**Applicant** ☒	**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	Section B.7 & Attachment B.7	
CHECKED	**Applicant** ☒	**Official** ☐

(f) specify the class or classes of activity concerned, in accordance with the Third and Fourth Schedules of the Act[1] 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	Section B.7 & Attachment B.7	
CHECKED	**Applicant** ☒	**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,

LOCATION	Section B.7, Attachment B.7 & Attachment H.1	
CHECKED	**Applicant** ☒	**Official** ☐

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

LOCATION	Attachment G	
CHECKED	**Applicant** ☒	**Official** ☐

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

LOCATION	Attachments D, F & H	
CHECKED	**Applicant** ☒	**Official** ☐

(j) 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	Attachment L	
CHECKED	**Applicant** ☒	**Official** ☐

[1] Note that the Third and Fourth Schedules of the Act were amended by the European Communities (Waste Directive) Regulations, 2011.

(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	Attachment E	
CHECKED	**Applicant** ☒	**Official** ☐

(l) 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	Attachments E, F & I	
CHECKED	**Applicant** ☒	**Official** ☐

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

LOCATION	Attachments F & I	
CHECKED	**Applicant** ☒	**Official** ☐

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

LOCATION	Attachment H.4	
CHECKED	**Applicant** ☒	**Official** ☐

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

LOCATION	Attachment H.4	
CHECKED	**Applicant** ☒	**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	Attachment J	
CHECKED	**Applicant** ☒	**Official** ☐

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

LOCATION	Attachment K	
CHECKED	**Applicant** ☒	**Official** ☐

(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	Section B.8	
CHECKED	**Applicant** ☒	**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	Attachment I	
CHECKED	**Applicant** ☒	**Official** ☐

(u) include a non-technical summary of information provided in relation to the matters specified in paragraphs (a) to (t) of this sub-article,

LOCATION	Attachment A	
CHECKED	**Applicant** ☒	**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	Attachment B.6	
CHECKED	**Applicant** ☒	**Official** ☐

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

LOCATION	Attachment B.6	
CHECKED	**Applicant** ☒	**Official** ☐

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

LOCATION	Attachment B.3	
CHECKED	**Applicant** ☒	**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	DRAWINGS – Drawing Ref. WLA-03	
CHECKED	**Applicant** ☒	**Official** ☐

(ii) the point or points from which emissions are made or are to be made, and

LOCATION	DRAWINGS – Drawing Ref. WLA-13	
CHECKED	**Applicant** ☒	**Official** ☐

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

LOCATION	DRAWINGS – Drawing Ref. WLA-14	
CHECKED	**Applicant** ☒	**Official** ☐

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

INCLUDED Y/N	Y	
CHECKED	**Applicant** ☒	**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 (as per *EPA Instructions for Licence Applicants*)	
CHECKED	**Applicant** ☒	**Official** ☐

CD OF PDF FILES PROVIDED? Y/N	(as per *EPA Instructions for Licence Applicants*)	
CHECKED	**Applicant** ☒	**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.

EIA REQUIRED ? Y/N	N	
CHECKED	**Applicant** ☒	**Official** ☐
3 HARD COPIES OF EIS INCLUDED ? Y/N	Not Applicable	
CHECKED	**Applicant** ☒	**Official** ☐
16 CD versions of EIS, as PDF files, PROVIDED? Y/N	Not Applicable	
CHECKED	**Applicant** ☒	**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. <u>The abbreviation "N/A" should not be used.</u>**

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: Drawings. The following guidelines are included to assist applicants:

- *All drawings submitted should be titled and dated.*
- *They should have a **unique reference number** and should be signed by a clearly identifiable person.*
- *They should indicate a scale and the **direction of north**.*
- *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**.

SECTION B GENERAL

B.1 Applicant's Details

Name*:	Rehab Glassco Limited
Address:	Unit 4, Osberstown Industrial Park
	Caragh Road
	Naas
	Co. Kildare
Tel:	01 6854400
Fax:	01 4430621
e-mail:	info@rehabglassco.ie

* 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. Zeki Mustafa
Address:	Rehab Glassco Limited
	Unit 4, Osberstown Industrial Park
	Caragh Road
	Naas, Co. Kildare
Tel:	01 6854400
Fax:	01 4430621
e-mail:	zeki.mustafa@rehabglassco.ie

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

Address:	As above
Tel:	
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.

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

Landowner	☒
Lessee	☐
Prospective Purchaser	☐
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: As Applicant
Address:

Tel:
Fax:
e-mail:

Name and address of the current* 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(≤A3) showing the above details should be included in **Attachment B1.**

Name: As Applicant
Address:

Tel:
Fax:
e-mail:
*Current at the time the application is submitted

B.2 Location of Activity

Name:	Rehab Glassco Limited
Address*:	Unit 4, Osberstown Industrial Park
	Caragh Road
	Naas
	Co. Kildare
Tel:	01 6854400
Fax:	01 4430621
e-mail:	info@rehabglassco.ie

* Include any townland

National Grid Reference (8 digit 4E,4N)	E 296767 N 220379

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

B.3 Planning Authority

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

Name:	Kildare County Council
Address:	Áras Chill Dara
	Devoy Park
	Naas
	Co Kildare
Tel:	(045) 980200
Fax:	(045) 980240

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 (Licensing) Regulations?

Planning Authority notified	**Yes** ☒
	No ☐

Planning Permission relating to this application:-

has been obtained	☒
is being processed	☐
is not yet applied for	☐
is not required	☐

Local Authority Planning File Reference Nº:	06/1710 and 09/48 (and others detailed in Attachment B.3)

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 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.*

B.4 Sanitary Authority

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 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 plant (if any) to which the sewer discharges.

Name:	Kildare County Council (Osberstown Wastewater Treatment Plant)
Address:	Áras Chill Dara
	Devoy Park
	Naas
	Co Kildare
Tel:	(045) 980200
Fax:	(045) 980240

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.

Within SFADCo. Area	**Yes** ☐	**No** ☒

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

Name:	HSE Dublin Mid-Leinster
Address:	HSE Unit 4 Central Business Park
	Clonminch
	Tullamore, Co.Offaly.
Tel:	057 93 57876
Fax:	

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. See *Guidance Note.*

Attachment B.6 should contain a copy of the site notice and an appropriately scaled drawing (≤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.

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 2010, as amended by the European Communities (Waste Directive) Regulations, 2011, 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 MANAGEMENT ACTS 1996 TO 2010

Waste Management Acts 1996 to 2010					
Third Schedule Waste Disposal Operations		**Y/N**	**Fourth Schedule Waste Recovery Operations**		**Y/N**
D 1	Deposit into or on to land (e.g. including landfill, etc.).	N	R 1	Use principally as a fuel or other means to generate energy: This includes incineration facilities dedicated to the processing of municipal solid waste only where their energy efficiency is equal to or above: - 0.60 for installations in operation and permitted in accordance with applicable Community acts before 1 January 2009, - 0.65 for installations permitted after 31 December 2008, using the following formula, applied in accordance with the reference document on Best Available Techniques for Waste Incineration: Energy efficiency = (Ep - (Ef + Ei)/ (0.97x(Ew+Ef) where— 'Ep' means annual energy produced as heat or electricity and is calculated with energy in the form of electricity being multiplied by 2.6 and heat produced for commercial use multiplied by 1.1(GJ/year), 'Ef' means annual energy input to the system from fuels contributing to the production of steam (GJ/year), 'Ew' means annual energy contained in the treated waste calculated using the net calorific value of the waste (GJ/year), 'Ei' means annual energy imported excluding Ew and Bf(GJ/year), '0.97' is a factor accounting for energy losses due to bottom ash and radiation.	N
D 2	Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.).	N	R 2	Solvent reclamation/regeneration.	N
D 3	Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.).	N	R 3	Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation	N

				processes), which includes gasification and pyrolisis using the components as chemicals.	
D 4	Surface impoundment (e.g. placement of liquid or sludgy discards into pits, ponds or lagoons, etc.).	N	R 4	Recycling/reclamation of metals and metal compounds.	**Y**
D 5	Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.).	N	R 5	Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.	**P**
D 6	Release into a water body except seas/oceans.	N	R 6	Regeneration of acids or bases.	N
D 7	Release to seas/oceans including sea-bed insertion.	N	R 7	Recovery of components used for pollution abatement.	N
D 8	Biological treatment not specified elsewhere in this Schedule which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12.	N	R 8	Recovery of components from catalysts.	N
D 9	Physico-chemical treatment not specified elsewhere in this Schedule which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcinations, etc.).	N	R 9	Oil re-refining or other reuses of oil.	N
D 10	Incineration on land.	N	R 10	Land treatment resulting in benefit to agriculture or ecological improvement.	N
D 11	Incineration at sea (this operation is prohibited by EU legislation and international conventions).	N	R 11	Use of waste obtained from any of the operations numbered R 1 to R 10.	N
D 12	Permanent storage (e.g. emplacement of containers in a mine, etc).	N	R 12	Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11).	**Y**
D 13	Blending or mixing prior to submission to any of the operations numbered D 1 to D 12 (if there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, amongst others, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12).	N	R 13	Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).	**Y**
D 14	Repackaging prior to submission to any of the operations numbered D 1 to D 13.	N			
D 15	Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the 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)	150,000
Year	2020

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 disposal activity 1.1 – 3.3)	€ 0
Recovery of Waste (4)	€ 10,000
TOTAL:	**€ 10,000**

TABLE B.7.4 (FOR A LANDFILL APPLICATION)

NOT APPLICABLE

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

(a) landfill for hazardous waste	☐
(b) landfill for non-hazardous waste	☐
(c) landfill for inert waste	☐

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.

Regulations Apply	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.**

Name	Position	Duties and Responsibilities	Experience /Qualifications
Please see Attachment C.1			

C.2 Environmental Management System

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

Please see Attachment C.2

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.

Please see Attachment C.3

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.

Not Applicable

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**	N	Wheel cleaning/ power wash installed
D.1.f	**Laboratory facilities**	Y	Quality control lab only
D.1.g	**Design and location of fuel storage areas**	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**	Y	
D.1.n	**Site accommodation**	Y	
D.1.o	**A fire control system, including water supply**	Y	
D.1.p	**Civic amenity facilities**	N	None proposed
D.1.q	**Any other waste recovery infrastructure**	N	None proposed
D.1.r	**Composting infrastructure**	N	None proposed
D.1.s	**Construction and Demolition waste infrastructure**	N	None proposed
D.1.t	**Incineration infrastructure (if applicable).** **Provide information to fulfil Article 4 (2) & (3) of the Incineration of Waste Directive**	N	None proposed
D.1.u	**Any other infrastructure**	N	None proposed

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	**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 for immediate projects only (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

		y/n	Comments
D.3.a	**Provide information to fulfil Annex 1 of the Landfill Directive**		
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.**

TABLE D.4.1 LEACHATE MANAGEMENT ARRANGEMENTS

		y/n	Comments
D.4.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?**		

D 5 Landfill Gas Management

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 for immediate or current gas collection projects only (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

		y/n	Comments
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)?**		
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.5l	**Has a maintenance programme for the control system been specified?**		
D.5m	**Has a condensate removal system been designed?**		

D.6 Capping System

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 for immediate projects only (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	**Has the Capping System been designed and does it meet the requirements of the Landfill Directive Annex 1 (3.3)?**		
D.6e	**Does the Capping System include a flexible membrane liner?**		
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.

Please see Attachment E

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.

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 the period 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

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** ☒	**no** ☐	**not applicable** ☐
Traffic Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Vermin Control	**Control method specified**	**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 (≤A3) as appropriate.

For each Emission Point identified complete Table F.1 of the Annex, and include detailed descriptions and appropriately scaled schematics (≤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 BAT Note. 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

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

F.6 Noise

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

F.7 Meteorological Data

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

F.9 Landfill Gas

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^3)	Proposed Frequency of Analysis	Information Included Y/N	Method of Analysis	Information Included Y/N
Inlet					
Methane (CH_4) % v/v					
Carbon dioxide (CO_2) %v/v					
Oxygen (O_2) % v/v					
Outlet					
Volumetric Flow Rate					
SO_2					
Nox					
CO					
Particulates					
TA Luft Class I, II, III organics					
Hydrochloric acid					
Hydrogen Fluoride					

Table F.9(b) Landfill Gas Monitoring

Parameter	**Proposed Frequency of Analysis**		**Information Included Y/N**	**Method of Analysis**	**Information Included Y/N**
	Gas boreholes / vents/ wells/ perimeter locations	Facility Office			
Methane (CH_4) % v/v					
Carbon Dioxide (CO_2) % v/v					
Oxygen (O_2) % v/v					
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 12-figure grid references)	**yes** ☐	**no** ☐	**not applicable** ☐
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 included	**yes** ☒ **no** ☐ **not applicable** ☐

G.2 Energy Efficiency

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

Attachment included	**yes** ☒ **no** ☐ **not applicable** ☐

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 Acts 1996 to 2010 3rd Schedule (Disposal) Operations			Waste Management Acts 1996 to 2010 4th Schedule (Recovery) Operations		
Class of Activity Applied For		Quantity (tpa)	Class of Activity Applied For		Quantity (tpa)
Class D 1			Class R 1		
Class D 2			Class R 2		
Class D 3			Class R 3		
Class D 4			Class R 4		2,000
Class D 5			Class R 5		121,000
Class D 6			Class R 6		
Class D 7			Class R 7		
Class D 8			Class R 8		
Class D 9			Class R 9		
Class D 10			Class R 10		
Class D 11			Class R 11		
Class D 12			Class R 12		25,000
Class D 13			Class R 13		500
Class D 14					
Class D 15		1,500			

All figures are estimated.

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) lined 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)
2011	100,000		

2015	120,000		
2020 onwards	150,000		

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	69,245	109,799	Not known
Commercial	25,353	40,201	Not known
Sewage Sludge			
Construction and Demolition			
Industrial Non-Hazardous Sludges			
Industrial Non-Hazardous Solids			
Hazardous ***(Specify detail in Table H 1.2)**			
Inert Waste imported for restoration purposes		COMPLETE FOR LANDFILL & CONTAMINATED LAND FACILITIES ONLY	

*** 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			
Oil filters			
Asbestos			
Paint and Ink			
Batteries			
Fluorescent Light Bulbs			
Contaminated Soils			
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)			

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.4(i) and H.4(ii) of the application form. Applicants should also provide conversion factors used to relate volume (m^3) 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.**

I.4 Assessment of impact of ground/groundwater emissions

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 plans/drawings (≤A3), documentation, including containment engineering, remedial works, and any other supporting information should be included in **Attachment I.5**.

I.6 Noise Impact.

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 (≤ 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

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.**

Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

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.

Attachment included	**yes** ☒ **no** ☐ **not applicable** ☐

SECTION L STATUTORY REQUIREMENTS

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.

Attachment included	**yes** ☒ **no** ☐ **not applicable** ☐

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.

Signed by : _____ **Date :** 18/1/2011
(on behalf of the organisation)

Print signature name: ZEKI MUSTAFA

Position in organisation : MANAGING DIRECTOR

COMPANY SECRETARY

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. N^{o}:	**Not Applicable**
Location :	
Grid Ref. (12 digit, 6E,6N):	
Vent Details Diameter: Height above Ground(m):	
Date of commencement of emission:	

Characteristics of Emission :

CO		mg/m^3
Total organic carbon (TOC)		mg/m^3
NOx		mg/Nm^3 0^{o}C. 3% O_2(Liquid or Gas), 6% O_2(Solid Fuel)
Maximum volume of emission		m^3/hr
Temperature	^{o}C(max) ^{o}C(min)	^{o}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^{o}:	**A1**
Source of Emission:	**Stack at Drying Plant**
Location :	**Drying Plant**
Grid Ref. (12 digit, 6E,6N):	**E221379, N293767**
Vent Details Diameter: Height above Ground(m):	
Date of commencement:	

Characteristics of Emission :

(i) Volume to be emitted:			
Average/day	m^3/d	Maximum/day	m^3/d
Maximum rate/hour	m^3/h	Min efflux velocity	$m.sec^{-1}$
(ii) Other factors			
Temperature	^{o}C(max)	^{o}C(min)	^{o}C(avg)
For Combustion Sources: Volume terms expressed as : ☐ wet. ☐ dry. _____$\%O_2$			

(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 treatment(1)				Brief description of treatment	As discharged(1)					
	mg/Nm^3		kg/h			mg/Nm^3		kg/h.		kg/year	
	Avg	Max	Avg	Max		Avg	Max	Avg	Max	Avg	Max

1. Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0^{o}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 Reference Numbers	Description	Emission details[1]				Abatement system employed
		material	mg/Nm$^{3(2)}$	kg/h.	kg/year	

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^{o}C101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

TABLE E.2(i): EMISSIONS TO SURFACE WATERS
(One page for each emission)

Emission Point:

Emission Point Ref. N^{o}:	**SW1**
Source of Emission:	**Site surface water management system**
Location :	**On-site manhole close to the northern corner of the site**
Grid Ref. (10 digit, 5E,5N):	**E111443, N269368**
Name of receiving waters:	**Discharges to a culvert and the industrial estate's surface water drainage system**
Flow rate in receiving waters:	**Not known**_____$m^3.sec^{-1}$ Dry Weather Flow _____$m^3.sec^{-1}$ 95%ile flow
Available waste assimilative capacity:	**Not known** kg/day

Emission Details:

(i) Volume to be emitted **Not known**			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3		

(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/hr _____hr/day _____day/yr

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

Emission point reference number : **SW1**

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)	Max. daily average (mg/l)	kg/day	kg/year	
Not known									

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

Emission Point:

Emission Point Ref. N^{o}:	**SE1**
Location of connection to sewer :	**The foul sewer runs from the site offices to the industrial park's sewer system outside the facility entrance**
Grid Ref. (10 digit, 5E,5N):	**E269368, N111443**
Name of sewage undertaker:	**Osberstown Wastewater Treatment Plant**

Emission Details:

(i) Volume to be emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3		

(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/hr _____hr/day _____day/yr

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

Emission point reference number : **SE1**

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)	Max. daily average (mg/l)	kg/day	kg/year	
Not available									

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

Emission Point or Area:

Emission Point/Area Ref. Nº:	**Not applicable**
Emission Pathway: (borehole, well, percolation area, soakaway, landspreading, etc.)	
Location :	
Grid Ref. (10 digit, 5E,5N):	
Elevation of discharge: (relative to Ordnance Datum)	
Aquifer classification for receiving groundwater body:	
Groundwater vulnerability assessment (including vulnerability rating):	
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^3	Maximum/day	m^3
Maximum rate/hour	m^3		

(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/hr _____hr/day _____day/yr

Table E.5(i): NOISE EMISSIONS - Noise sources summary sheet

Source	Emission point Ref. No	Equipment Ref. No	Sound Pressure[1] dBA at reference distance	Octave bands (Hz) Sound Pressure[1] Levels dB(unweighted) per band									Impulsive or tonal qualities	Periods of Emission
				31.5	63	125	250	500	1K	2K	4K	8K		
Ambient noise at NSL1	Not applicable	Not applicable	Daytime (LAeq,30min): 47 dB(A)	61	53	44	38	35	40	33	30	16	@16Hz	Daytime
Ambient noise at NSL1	Not applicable	Not applicable	Night-time (LAeq,30min): 51 dB(A)	62	57	57	51	39	39	34	29	21	@16 Hz	Night-time

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

TABLE F.1: ABATEMENT / TREATMENT CONTROL

Emission point reference number **:** **SW1**

Control[1] parameter	Equipment [2]	Equipment maintenance	Equipment calibration	Equipment back-up
Petrol/Oils	Klargester Petrol Interceptor	Inspection and emptying as required	Not Applicable	Not Applicable

Control[1] parameter	Monitoring to be carried out[3]	Monitoring equipment	Monitoring equipment calibration
Petrol/Oils	Bi-annual water sampling for laboratory analysis	Baler/Grab sample	Not Required (laboratory testing)

[1] List the operating parameters of the treatment / abatement system which control its function.
[2] 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). : **A1**

Parameter	Monitoring frequency	Accessibility of Sampling Points
To be confirmed	To be confirmed	To be confirmed

Emission Point Reference No(s). : **SW1**

Parameter	Monitoring frequency	Accessibility of Sampling Points
BOD	Bi-annual	Accessible (via manhole)
Total suspended	Bi-annual	Accessible (via manhole)

solids		
Mineral oils	Bi-annual	Accessible (via manhole)

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

Monitoring Point Reference No :_____**NSL1**_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Noise (Daytime and Night-time)	Annual	Accessible

Monitoring Point Reference No :_____**D1**_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Dust	Annual (between May to Sep.)	Accessible

Monitoring Point Reference No :_____**D2**_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Dust	Annual (between May to Sep.)	Accessible

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

Ref. Nº or Code	Material/ Substance(1)	CAS Number	Danger(2) Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R(3) - Phrase	S(3) - Phrase
	Not applicable							

Notes: 1. In cases where a material comprises a number of distinct and available dangerous substances, please give details for each component substance.
2. c.f. Article 2(2) of SI Nº 77/94
3. c.f. Schedules 2 and 3 of SI Nº 77/94

TABLE H.4(i): WASTE - Hazardous Waste Recovery/Disposal

Waste material	EWC Code	Main source[1]	Quantity		On-site Recovery/Disposal (Method & Location)	Off-site Recovery, reuse or recycling (Method, Location & Undertaker)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes / month	m^3 / month			
Not applicable							

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

TABLE H.4(ii) WASTE - Other Waste Recovery/Disposal

Waste material	EWC Code	Main source[1]	Quantity		On-site recovery/disposal[2] (Method & Location)	Off-site Recovery, reuse or recycling (Method, Location & Undertaker)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes / month	m^3 / month			
Glass/cans	Various (see Attachment H.1)	Household/ commercial/ institutional	Approx. 12,500		On-site processing and segregation for use off-site	Material used as product off-site	Small amounts of residual waste consigned for disposal to licensed/permitted facilities only

1 A reference should be made to the main activity/ process for each waste.
2 The method of disposal or recovery should be clearly described and referenced to Attachment H.1

Table I.2(i) SURFACE WATER QUALITY

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

Parameter	Results (mg/l)				Sampling method[2] (grab, drift etc.)	Normal Analytical Range[2]	Analysis method / technique
	Date	Date	Date	Date			
pH							
Temperature							
Electrical conductivity EC							
Ammoniacal nitrogen NH_4-N							
Chemical oxygen demand							
Biochemical oxygen demand							
Dissolved oxygen DO							
Calcium Ca							
Cadmium Cd							
Chromium Cr							
Chloride Cl							
Copper Cu							
Iron Fe							
Lead Pb							
Magnesium Mg							
Manganese Mn							
Mercury Hg							

Surface Water Quality (Sheet 2 of 2)

Parameter	Results (mg/l)				Sampling method (grab, drift etc.)	Normal Analytical Range	Analysis method / technique
	Date	Date	Date	Date			
Nickel Ni							
Potassium K							
Sodium Na							
Sulphate SO_4							
Zinc Zn							
Total alkalinity (as $CaCO_3$)							
Total organic carbon TOC							
Total oxidised nitrogen TON							
Nitrite NO_2							
Nitrate NO_3							
Faecal coliforms (/100mls)							
Total coliforms (/100mls)							
Phosphate PO_4							

Table I.4(i) GROUNDWATER QUALITY

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

Parameter	Results (mg/l)				Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	Date	Date	Date	Date			
pH							
Temperature							
Electrical conductivity EC							
Ammoniacal nitrogen NH_4-N							
Dissolved oxygen DO							
Residue on evaporation (180^{o}C)							
Calcium Ca							
Cadmium Cd							
Chromium Cr							
Chloride Cl							
Copper Cu							
Cyanide Cn, total							
Iron Fe							
Lead Pb							
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_4							
Sulphate SO_4							
Zinc Zn							
Total alkalinity (as $CaCO_3$)							
Total organic carbon TOC							
Total oxidised nitrogen TON							
Arsenic As							
Barium Ba							
Boron B							
Fluoride F							
Phenol							
Phosphorus P							
Selenium Se							
Silver Ag							
Nitrite NO_2							
Nitrate NO_3							
Faecal coliforms (/100mls)							
Total coliforms (/100mls)							
Water level (m OD)							

Table I.6(i) Ambient Noise Assessment

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

	National Grid Reference	Sound Pressure Levels		
	(5N, 5E)	$L(A)_{eq}$	$L(A)_{10}$	$L(A)_{90}$
1. SITE BOUNDARY				
Location 1:				
Location 2:				
Location 3:				
Location 4:				
2. NOISE SENSITIVE LOCATIONS				
Location 1:	NSL1 (E175718, N166379)	47	49	53
Location 2:				
Location 3:				
Location 4:				

NOTE: All locations should be identified on accompanying drawings.

REHAB GLASSCO LTD.

ATTACHMENTS DOCUMENT - Waste Licence Application for Glass and Can Recycling Facility at Existing Waste Management Facility at Osberstown, Naas, Co. Kildare

July 2011

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environmental solutions

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patel tonra ltd
environmental solutions

Report Issue Form

IF-11B
Revision: 01 (2nd June 2011)

Client Name:	Rehab Glassco Ltd.
Client Address:	Unit 4, Osberstown Industrial Park, Caragh Road, Naas, Co. Kildare, Ireland
Report Title:	ATTACHMENTS DOCUMENT - Waste Licence Application for Glass and Can Recycling Facility at Existing Waste Management Facility at Osberstown, Naas, Co. Kildare
Project Code:	RG0201

Project Manager (Name):	Louise O'Donnell
Project Manager (Sign):	L. O'Donnell
Project Manager (Date):	26th July 2011.

Approved by Project Director (Name):	Vip Patel
Approved by Project Director (Sign):	V Patel
Approved by Project Director (Date):	25th July 2011.

Issue No.	Date	Status
01	26th July 2011	Final Version – Issue to EPA and Client

Notes/Comments:

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Appendix B.3.5: Waste Facility Permit WFP-KE-08-0357-01

Appendix B.6.1: Site Notice

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Attachment A:

Non-technical Summary

Attachment A: Non-technical Summary (NTS)

A.a NTS: Contents

A.a.1 This non-technical summary (NTS) comprises the following:

- A.a: Contents
- A.b to A.l: Non-technical summary of each section of the Waste Licence Application
- A.m: Selected Waste Licence Application drawings to accompany the non-technical summary, to identify and describe the activity.

A.b NTS: Section B - General

A.b.1 This Waste Licence application is being made by Rehab Glassco Ltd. (also referred to as 'Rehab Glassco' hereinafter) for a glass and can recycling facility at Unit 4, Osberstown Industrial Park, Caragh Road, Naas, Co. Kildare, Ireland. The site is a fully operational, state-of-the-art glass and can recycling facility. The facility is a key piece of waste management infrastructure in Ireland and accounts for approximately 80% of Ireland's glass recycling.

A.b.2 The application has been prepared by Patel Tonra Ltd., Environmental Solutions on behalf of Rehab Glassco.

A.b.3 The facility currently operates under a Waste Facility Permit issued by Kildare County Council; Waste Permit Register number WFP-KE-08-0357-01. Due to increased tonnage inputs in 2011, the EPA confirmed the requirement to apply for a Waste Licence for the facility.

A.b.4 Rehab Glassco Ltd. was formed as a result of the acquisition of Glassco Recycling Ltd. by The Rehab Group in December 2009. Rehab Recycle (part of The Rehab Group) operated a glass recycling facility in Ballymount, South Dublin under Waste Facility Permit (No. WPR 004/2); the Ballymount facility closed in February 2011. From February 2011 onwards, all material was directed to the Osberstown (Naas) facility.

A.b.5 The Osberstown (Naas) facility has been operated as a glass recycling facility by Rehab Glassco/Glassco Recycling Ltd. since 2008, under permit from Kildare County Council (No. WFP-KE-08-0357-01).

A.b.6 A copy of the newspaper page containing the Waste Licence Application advertisement is attached with this application. A site notice is affixed adjacent to the facility entrance.

Type of Waste Activity

A.b.7 In accordance with the Third and Fourth Schedules to the Waste Management Acts 1996 to 2011[1], the principal waste activity is Fourth Schedule, Recovery Operations, Class ***R 5****: Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.* This activity at Rehab Glassco relates to the separation and recycling of glass.

A.b.8 Metals are also recovered at the facility (e.g. drinks cans, food tins); therefore Fourth Schedule, Recovery Operations, Class ***R 4****: Recycling/reclamation of metals and metal compounds*, is relevant.

A.b.9 In relation to the operation of the Drying Plant at Rehab Glassco, the following class of activity is relevant: ***R 12****: Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11)*.

A.b.10 Small amounts of residual material will be temporarily stored on-site pending off-site recovery or disposal at an appropriately licensed/permitted waste facility; therefore the following classes are relevant:

- Third Schedule, Disposal Operations, Class ***D 15***: *Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced)*.
- Fourth Schedule, Recovery Operations, Class ***R 13****: Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced)*.

A.b.11 The activity is not 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.

A.c NTS: Section C - Management of the Facility

A.c.1 Rehab Glassco offers unparalleled experience in glass collection and recycling services in Ireland. The site has been an operational glass recycling facility since 2008, under the conditions of a Waste Facility Permit from Kildare County Council. Prior to the formation of Rehab Glassco, Glassco Recycling Ltd. operated in the glass recycling sector for 11 years, and Rehab Recycle operated in the glass recycling sector for 15 years.

A.c.2 An organisational chart for the facility is included in Attachment **C**.

A.c.3 Rehab Glassco is currently implementing an Environmental Management System in line with the International Standard ISO14001:2008.

[1] Including amendments by the European Communities (Waste Directive) Regulations, 2011

Hours of Operation

A.c.4 The proposed hours of operation are: 24-hours, Monday to Sunday, including bank holidays.

A.c.5 It is not anticipated that the facility would routinely operate on a continuous 24/7 basis in the short-term; however the application seeks 24/7 operational hours on the basis that this may be required during busy periods for glass recycling in line with public/customer demand (e.g. Christmas time) or for operational reasons.

A.c.6 The proposed hours of waste acceptance are: 07:00 (7am) to 22:00 (10pm), Monday to Sunday, including bank holidays.

A.c.7 No construction/development works are proposed as part of this application.

A.c.8 No other relevant hours of operation are anticipated.

A.d NTS: Section D - Infrastructure & Operation

A.d.1 The facility has completed a range of infrastructural works in line with the requirements of the Waste Facility Permit issued by Kildare County Council (WFP-KE-08-0357-01). Site infrastructure is shown on Drawing **WLA-04**.

Site security arrangements including gates and fencing

A.d.2 Site security gates and fencing are in place at the site. The site currently operates a CCTV security system. The site is manned overnight for operational purposes and site personnel are available to deal with any emergencies and or security breaches. All site buildings are lockable.

Designs for site roads

A.d.3 The site is located within the existing Osberstown Industrial Park, Naas, Co. Kildare, which has a well developed road network; therefore there is no requirement for new access roads to the site. Traffic movement is controlled by a designated one-way system on site.

Design of hardstanding areas

A.d.4 The site is overlaid by concrete hardstanding, with the exception of a designated wayleave 20m in width along the northern site boundary, which is dedicated for the Newbridge rising main.

Plant

A.d.5 The primary items of plant relate to: (i) the Main Process Building, and (ii) Drying Plant. No additional plant is proposed for the purposes of this Waste Licence Application. The Main Process Building includes the following plant and equipment:

- Screens
- Crushers
- Magnetic separation units
- Eddy current separators
- Air classifiers

- Optical sorting equipment
- Conveyor systems
- Process control system
- Fire detection and alarm system

A.d.6 The Drying Plant building houses a rotating drying unit, with associated conveyor, bagging and ancillary equipment.

A.d.7 There is currently a single weighbridge on site, which will be maintained for ongoing use. The weighbridge software is of bespoke design, commissioned by Rehab Glassco to meet their specific business requirements.

Wheelwash

A.d.8 A wheel cleaning system and a truck wash facility is currently in place on site. Vehicle washing and wheelwash facilities are provided using a power-washing system on site, if required; however, the majority of vehicles which enter/exit the site arrive on the public road network onto a fully concreted site and the risk of carrying mud/dirt off-site is insignificant.

Laboratory facilities

A.d.9 No on-site laboratory for environmental analysis is proposed. Any samples collected as part of the environmental monitoring programme will be analysed by an independent accredited laboratory. There is currently a quality control laboratory on site for the control of the processed glass cullet product.

Design and location of fuel storage areas

A.d.10 There are currently two fuel storage tanks on site: Tank#1 is a 10,000-litre capacity diesel storage tank, located at the input bunker to the Main Process Building; Tank#2 is a 2,500-litre capacity diesel storage tank, located adjacent to the entrance to the Drying Plant. Tank#1 is used to fuel site machinery and Tank#2 fuels the drying unit. Both tanks are bunded/double skinned.

Waste Quarantine and Inspection Areas

A.d.11 There is an established waste inspection and quarantine procedure in place at the facility.

Traffic Control

A.d.12 There is a one-way traffic management system in place on site, as indicated by directional signage. All incoming and outgoing vehicles must report to the weighbridge. All drivers are required to drive with due consideration for site safety. There are designated parking areas on site.

Sewage and Surface Water Drainage Infrastructure

A.d.13 A purpose-designed surface water management system has been installed at the facility, to include an engineered surface water drainage network, a silt trap and 2 No. interceptors.

All other services

A.d.14 Electricity is supplied to the facility by a sub-station on site supplying 1,000 KVA. The site is fully equipped with a modern telecommunications system, including broadband, internet access, email, telephone and fax.

Plant sheds, garages and equipment compound

A.d.15 In addition to the Main Process Building and the Drying Plant, there is an on-site garage building used for the purpose of standard vehicle maintenance for Rehab Glassco vehicles.

Site Accommodation

A.d.16 Site offices, including the weighbridge office, are contained within the Main Process Building.

Fire Control System, including water supply

A.d.17 A fire detection and alarm system is installed at the premises.

Facility Operation

A.d.18 There are two unit operations on site: (i) main glass/can processing, and (ii) drying plant operation.

A.e NTS: Section E - Emissions

Emissions to Atmosphere

A.e.1 There is one air emission point source – the source of this emission point relates to the drying unit in the Drying Plant building. There are potential fugitive emissions to air from dust and vehicle emissions; however management and control procedures will be implemented to mitigate against such impacts.

Emissions to Surface Waters

A.e.2 Discharge from two on-site interceptors combines at an on-site manhole close to the northern corner of the site. This combined site surface water emission discharges to a culvert and the industrial estate's surface water drainage system.

Emissions to Sewers

A.e.3 Toilet and washing facilities from the Office/Administration building are the only emissions to sewer.

Emissions to Groundwater

A.e.4 There will be no direct discharges to groundwater or any groundwater abstractions as part of the development.

Noise Emissions

A.e.5 Potential noise emissions are associated with plant and equipment, vehicle movements and loading/unloading operations.

Environmental Nuisances

Bird Control

A.e.6 The acceptable waste types are inert; therefore nuisance from birds is deemed to be insignificant.

Dust Control

A.e.7 The following mitigation measures will be employed to prevent or minimise dust emissions associated with the facility:

- All processing will be conducted indoors
- Facility roads will be cleaned, as required
- Dust suppression system will be installed

Fire Control

A.e.8 Emergency response procedures will be prepared and submitted to the EPA as part of the Environmental Management Programme.

Litter Control

A.e.9 Litter impacts are not anticipated due to the nature of the materials accepted, i.e. glass, cans, etc.; however good housekeeping practices will be implemented, as well as routine site inspections.

Traffic

A.e.10 Access to the site will be controlled; the general public does not have access to the facility. There are designated staff, visitor and truck parking areas. On-site traffic flow patterns/routes, based on a one-way system, are specified. No traffic queuing is permitted outside the facility.

Vermin Control

A.e.11 Rehab Glassco retains the services of a pest control contractor and bait boxes are in place at a number of locations on site.

A.f NTS: Section F - Control & Monitoring

Treatment, Abatement and Control Systems

A.f.1 A dust suppression system is being installed at the facility.

A.f.2 A baghouse filtration system is in place in the Drying Plant.

A.f.3 A fire detection and alarm system is installed at the premises.

A.f.4 A purpose-designed surface water management system has been installed at the facility.

Air Monitoring and Sampling Points

A.f.5 The air emission point at the Drying Plant is currently undergoing monitoring by a specialist consultant; details will be provided to the Agency when available, including a proposed ongoing monitoring regime, as appropriate. The Waste Licence application also specifies proposed dust monitoring locations.

Surface Water Monitoring and Sampling Points

A.f.6 One surface water emission monitoring point is proposed.

Noise Monitoring and Sampling Points

A.f.7 Annual noise monitoring is proposed at the nearest residential noise sensitive receptor.

A.g NTS: Section G - Resources Use & Energy Efficiency

A.g.1 The input material to the facility is glass and cans. Input glass may be colour-segregated or mixed-colour. Material is subject to a range of sorting/processing techniques. There is no washing of material. No chemicals/additives are applied. The process aims to maximise the recovery of glass and cans.

A.g.2 All office space heating is powered by electricity (storage heaters). Diesel is stored in 2 No. on-site tanks; diesel is used to fuel site vehicles, and as a fuel source for the Drying Plant. Oils, lubricants, etc. associated with vehicle maintenance and garaging activities are stored in the Garage Building. Water is used for drinking water and sanitary purposes.

A.g.3 Rehab Glassco has invested in state-of-the-art sorting equipment for its plant at Osberstown. The equipment was procured with due regard for energy efficiency specifications. The main switch room is fitted with power factor correction which regulates power supply to the facility to maximise efficiency and minimise any losses.

A.g.4 Energy use is monitored and measured and opportunities for improved energy performance are examined on an ongoing basis. Records of resource and energy use will be maintained on site and reported to the EPA as required.

A.h NTS: Section H - Materials Handling

Waste Types and Quantities

A.h.1 Rehab Glassco offers a nationwide collection and recycling service for glass and cans. Materials are collected from pubs, hotels, restaurants, sports clubs, financial institutions, office blocks, apartments and housing developments, council bring sites, civic amenity centres, industrial units and waste companies.

A.h.2 The following materials are accepted for recycling:

- bottles and jars
- aluminium and steel cans
- car windscreens
- double glazed units
- picture frame and window off-cuts
- wired glass and mirrored glass

A.h.3 The facility has the capability of sorting mixed glass into colour-separated glass cullet.

A.h.4 The Waste Licence application seeks an input tonnage of up to 150,000 tonnes per annum.

Waste Acceptance Procedures

A.h.5 Incoming loads are weighed in and full details recorded on the weighbridge software. The weighbridge operator directs the incoming vehicle to the appropriate storage bay for unloading. Waste sources and inputs to the Rehab Glassco facility are controlled. All waste loads arriving at the facility are tipped and visually inspected prior to processing. Any contaminated/unsuitable loads may be recorded as a 'rejected load' and returned to source or removed to an appropriately licensed/permitted site, with the Agency's consent.

A.h.6 Any loads which may require to be further inspected or quarantined will be appropriately cordoned off in a storage bay pending further investigation and the material will be dealt with in the appropriate manner. Any smaller non-conforming items within an incoming loaded may be removed to the residual waste storage area or mobile hopper bins, pending removal off-site to an appropriately licensed/permitted facility.

Waste Handling

Main Process

A.h.7 The Rehab Glassco glass processing and cleaning plant is a state-of-the-art facility, relying on proven technology which includes sophisticated optical technology, screening systems and air classification to separate various mixes and colours of glass-based material into furnace-ready clean cullet for remanufacture into glass products. The process also uses manual pre-sort and quality control techniques to separate out certain contaminants at the early stages of the process.

Drying Plant

A.h.8 The on-site Drying Plant is used to treat certain residual glass materials from the Main Process on site. The Drying Plant operation includes magnetic extraction, manual pre-sort, drying, screening, crushing and separation of the clean glass into various size fractions. Material is fed via a hopper and passes under an over-band magnet to a manual picking line. Acceptable material passes from the picking line to the rotating drying unit, which operates at approximately 170°C.

A.h.9 The glass output from the drying unit is screened into the following fractions: >8mm fraction, which is transferred onwards to the main processing plant for re-processing; the <8mm fraction is crushed and screened to form various grades of glass fines and is marketed as a saleable product.

Waste Arisings

A.h.10 Small amounts of residual waste arise from the Main Process and the Drying Plant operations. Residue consigned to landfill is minimised through the operation of the Drying Plant. Overall waste residue is estimated at approximately <1% of input, by weight.

A.h.11 Non-process wastes generated at the facility include: general municipal-type waste, office paper waste and waste from garaging activities. Records of all wastes removed from site are retained by Rehab Glassco. Only appropriately licensed/permitted waste contractors and facilities are used.

Re-use and Recycling

A.h.12 The facility produces glass cullet, which is a market-ready raw material used to manufacture new glass products; this is known as 'closed-loop' recycling. The environmental benefits of closed-loop glass recycling are well documented, including substantial energy savings, with positive climate change implications, and avoiding the need for quarrying and related emissions associated with using virgin raw materials for glass manufacturing.

A.h.13 The Rehab Glassco facility plays a critical role in the recycling and recovery of glass in the context of the Irish waste management sector. The operation of this facility makes a substantive contribution towards meeting Ireland's recycling and recovery targets for glass: it accounts for approximately 80% of the country's glass recycling.

A.i NTS: Section I - Existing Environment & Impact of the Facility

Assessment of atmospheric emissions

A.i.1 Dust mitigation measures will be employed to minimise on-site dust generation and prevent dust emissions off-site. Annual dust monitoring is proposed, between the period May to September. Further details in relation to air emissions from the drying plant will be made available to the Agency on completion of monitoring works.

Assessment of impacts of surface water discharges on the receiving waters

A.i.2 Surface water management infrastructure has been installed at the facility. Monitoring of surface water discharge is proposed.

Assessment of impact on receiving sewer

A.i.3 No significant wastewater impacts are anticipated.

Assessment of impact to groundwater and soils

A.i.4 No significant impacts on soils or groundwater are anticipated.

Ground and/or groundwater contamination

A.i.5 There is no known ground and/or groundwater contamination, historical or current, on or under the site.

Noise Impact

A.i.6 Noise mitigation measures will be employed to minimise potential noise nuisance. Annual noise monitoring is proposed at the nearest residential noise sensitive receptor.

Assessment of Ecological Impacts & Mitigation Measures

A.i.7 No significant impacts on ecology are anticipated.

A.j NTS: Section J - Accident Prevention & Emergency Response

A.j.1 Rehab Glassco has documented and implemented Emergency Response Procedure Guidelines. All staff receive Health & Safety induction training and are fully equipped with PPE. A fire detection and alarm system is installed at the premises.

A.j.2 Diesel is stored in double-skinned tanks. Potentially contaminating material stored in the garage building is retained on spill pallets. The surface water drainage system includes two interceptors.

A.k NTS: Section K - Remediation, Decommissioning, Restoration and Aftercare

A.k.1 If the decommissioning of part or all of the Rehab Glassco facility should be required, a phased decommissioning process will be carried out. After all material has been removed a programme of environmental monitoring and a site audit will be carried out to ensure that the local environment has not been adversely affected by the closure of the facility and that no residual material remains on the site.

A.k.2 It is not envisaged that the activities at the Rehab Glassco facility will have an adverse impact on the site, which will result in detailed aftercare management of the site being required.

A.l NTS: Section L - Statutory Requirements

A.l.1 Section 40(4) of the Waste Management Acts 1996 to 2011 requires that the Agency shall not grant a waste licence unless it is satisfied that its requirements are met. Attachment L of the Waste Licence Application provides information to show that these criteria have been met.

A.l.2 The facility will be managed and operated to minimise environmental impact. Environmental monitoring is proposed for air/dust, noise and surface water to ensure that relevant emission limit values are not exceeded. The facility is a state-of-the-art processing facility for the management of glass/cans. The facility has been designed to prevent/limit emissions from the activity.

A.l.3 The Rehab Glassco activity is deemed to be consistent with the objectives of Kildare Waste Management Plan.

A.l.4 Rehab Glassco (and previously Glassco Recycling) has been the holder of a Waste Facility Permit for the facility since 2008.

A.l.5 The Applicant has not been convicted of any offences pertaining to the Waste Management, EPA, Air or Water Pollution Acts.

A.l.6 The Applicant holds the requisite technical knowledge and qualifications to carry on the proposed activity in an appropriate manner.

A.l.7 The Applicant is in a position to meet financial commitments/liabilities which may be associated with the activity.

A.l.8 The Rehab Glassco facility focuses on the recycling of glass and cans, i.e. a *recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes*, in line with the priority order waste hierarchy.

A.l.9 The Rehab Glassco facility plays a critical role in the recycling and recovery of glass and cans in the context of the Irish waste management sector. The facility is strategically located with reference to key waste generation points in the country, with excellent motorway access to all parts of Ireland. The facility is designed and operated to ensure a high level of protection for the environment and public health.

A.m Selected Waste Licence Application Drawings to Accompany the Non-technical Summary

A.m.1 Please find attached:

- Drawing WLA-01: Site Location Map
- Drawing WLA-04: Site Plan
- Drawing WLA-07: Unit Operations
- Drawing WLA-14: Monitoring Locations

E - 286531

E - 286531

N - 219697

N - 220620

N

83.8

83.4

85.0

86.3

84.1

80.3

79.91

77.22

75.24

CF

UND

CARAGH ROAD

HALVERSTOWN ROAD

M7 MOTORWAY NORTHBOUND

M7 MOTORWAY SOUTHBOUND

10kv

TO DUBLIN

Wayleave - Newbridge Rising Main

Osberstown Treament Works
(Kildare Co Council)

E - 287106

E - 287106

EPA WASTE LICENCE APPLICATION, OSBERSTOWN BUSINESS PK, NAAS.

SITE LOCATION PLAN SCALE: 1:2500 DRG No. WLA-01 OSI LICENCE No. EN0060108

BRIAN PYPER AND ASSOCIATES
DASH HOUSE, 34 SHORE ROAD,
HOLYWOOD, CO. DOWN. BT18 9HX
TEL: 00 44 28 9039 3395
FAX: 00 44 28 9039 3396
MOB: 00 44 7825 213 111

REV.	DATE.	AMENDMENT.	INITIALS.

CLIENT: REHAB GLASSCO

PROJECT:
EPA WASTE LICENCE APPLICATION
OSBERSTOWN BUSINESS PARK, NAAS.

DRAWING:
SITE PLAN

SCALE.	DATE.	DRAWN BY.
1:1000	APRIL 2011	B.P.

DRAWING NO. WLA-04

REVISION NO.

DRAWING STATUS:	
PRELIMINARY	X
FOR INFORMATION	
FOR APPROVAL	
FOR CONSTRUCTION	

BRIAN PYPER AND ASSOCIATES
PROJECT DESIGN AND MANAGEMENT SERVICES
DASH HOUSE, 34 SHORE ROAD,
HOLYWOOD, CO. DOWN, BT18 9HX
TEL: 00 44 (0) 28 9039 3395 FAX: 00 44 (0) 28 9039 3396
E-MAIL: bpyper@gmail.com

0 10m 20m 30m 40m

N

HALVERSTOWN ROAD

EXISTING HOUSE

SITE 17

SITE 12

SITE 3

SITE 8

SITE 6&7

Storage Bays

Container Storage
(blinded hardcore)

WAYLEAVE – NEWBRIDGE RISING MAIN

(concrete)

Garage Building

ESB Sub Station

Facility Notice Board

Car Parking

Drying Plant

Ref. Point (wall intersection)
N 220379
E 296787

Site Entrance

Weighbridge

Offices, Canteen, WCs, etc.

Truck Parking

Truck Wash

Main Process (Sorting) Plant

one way system

(unsurfaced)

tank

tank

admin. building

Osberstown WWTW
(Kildare Co Co)

KEY:
- CCTV LOCATIONS
- DUST SUPPRESSION UNITS
- ONE WAY SYSTEM
- 1 FUEL STORAGE TANK No. 1
- 2 FUEL STORAGE TANK No. 2
- RESIDUAL BAY
- WAYLEAVE
- SITE BOUNDARY

REV.	DATE.	AMENDMENT.	INITIALS.

CLIENT: REHAB GLASSCO

PROJECT:
EPA WASTE LICENCE APPLICATION
OSBERSTOWN BUSINESS PARK, NAAS.

DRAWING:
UNIT OPERATIONS

SCALE.	DATE.	DRAWN BY.
1:1000	APRIL 2011	B.P.

DRAWING NO. WLA-07

REVISION NO.

DRAWING STATUS:	
PRELIMINARY	X
FOR INFORMATION	
FOR APPROVAL	
FOR CONSTRUCTION	

BRIAN PYPER AND ASSOCIATES
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HOLYWOOD, CO. DOWN, BT18 9HX
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E-MAIL: bpyper@gmail.com

0 10m 20m 30m 40m

N

HALVERSTOWN ROAD

EXISTING HOUSE

SITE 17

SITE 12

SITE 3

SITE 8

SITE 6&7

Storage Bays

Container Storage
(blinded hardcore)

WAYLEAVE – NEWBRIDGE RISING MAIN

(concrete)

(unsurfaced)

Garage Building

ESB Sub Station

Car Parking

Site Entrance

Weighbridge

Offices, Canteen, WCs, etc.

Truck Parking

Truck Wash

Main Process (Sorting) Plant

one way system

Drying Plant

Ref. Point (wall intersection)
N 220379
E 296787

tank

tank

admin. building

Osberstown WWTW
(Kildare Co Co)

DRYING PLANT UNIT OPERATIONS:

A. Weigh in
B. Material Inspection and Storage
C. Loading for Drying
D. DRYING / PROCESSING
E. Glass Product for Off-site
F. Glass to Main Process
G. Residual Waste Storage Pending Off-site Removal
H. Weigh out

MAIN GLASS PROCESSING PLANT UNIT OPERATIONS:

1. Weigh in
2. Material Inspection and Storage
3. Glass Loading into Main Process
4. SORTING / PROCESSING
5. Clean Glass / Can Output Storage
6. Residual Waste Storage Pending Off-site Removal
7. Can Crushing and Palletising
8. Bulk Glass Cullet Storage Pending Off-site Removal
9. Metals Storage Pending Off-site Removal
10. Weigh out

REV.	DATE.	AMENDMENT.	INITIALS.

CLIENT: REHAB GLASSCO

PROJECT:
EPA WASTE LICENCE APPLICTION
OSBERSTOWN BUSINESS PARK, NAAS.

DRAWING:
MONITORING POINTS PLAN

SCALE.	DATE.	DRAWN BY.
1:1000	APRIL 2011	B.P.

DRAWING NO. WLA-14

REVISION NO.

DRAWING STATUS:
- PRELIMINARY [X]
- FOR INFORMATION [ ]
- FOR APPROVAL [ ]
- FOR CONSTRUCTION [ ]

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E-MAIL: bpyper@gmail.com

0 10m 20m 30m 40m

N

HALVERSTOWN ROAD

EXISTING HOUSE

NSL1

SITE 17

SITE 12

SITE 3

SITE 8

SITE 6&7

D1

D2

SW1

A1

KEY:
- A1 denotes Air Monitoring Point
- SW1 denotes Surfacewater Monitoring Point
- NSL1 denotes Noise Monitoring Point
- D1/2 denotes Dust Monitoring Point

tank

tank

admin. building

Osberstown WWTW
(Kildare Co Co)

Attachment B:

General

Attachment B: General

B.0 Background and Context

B.0.1 This Waste Licence application is being made by Rehab Glassco Ltd. (also referred to as 'Rehab Glassco' hereinafter) for a glass and can recycling facility at Unit 4, Osberstown Industrial Park, Caragh Road, Naas, Co. Kildare, Ireland. The site is a fully operational, state-of-the-art glass and can recycling facility. The facility is a key piece of waste management infrastructure in Ireland and accounts for approximately 80% of Ireland's glass recycling.

B.0.2 The application has been prepared by Patel Tonra Ltd., Environmental Solutions on behalf of Rehab Glassco.

B.0.3 The facility currently operates under a Waste Facility Permit issued by Kildare County Council; Waste Permit Register number WFP-KE-08-0357-01. Due to increased tonnage inputs in 2011, the EPA confirmed the requirement to apply for a Waste Licence for the facility.

B.0.4 Rehab Glassco Ltd. was formed as a result of the acquisition of Glassco Recycling Ltd. by The Rehab Group in December 2009. Rehab Recycle (part of The Rehab Group) operated a glass recycling facility in Ballymount, South Dublin under Waste Facility Permit (No. WPR 004/2); the Ballymount facility closed in February 2011. From February 2011 onwards, all material was directed to the Osberstown (Naas) facility.

B.0.5 The Osberstown (Naas) facility has been operated as a glass recycling facility by Rehab Glassco/Glassco Recycling Ltd. since 2008, under permit from Kildare County Council (No. WFP-KE-08-0357-01).

B.1 Applicant Details

B.1.1 This Waste Licence application is being made by Rehab Glassco Ltd. (also referred to as 'Rehab Glassco' hereinafter) for a glass and can recycling facility at Unit 4, Osberstown Industrial Park, Caragh Road, Naas, Co. Kildare, Ireland.

B.1.2 The site location is shown in:

Drawing WLA-01 (Attachment B.1): Site Location Map

B.1.3 A Certificate of Incorporation (change of name) (December 2009) for Rehab Glassco Ltd. is attached. The facility was previously operated by Glassco Recycling Ltd; this Certificate of Incorporation (December 2002) is also attached.

Appendix B.1.1: Certificate of Incorporation

B.1.4 The Company Number is 365472, as shown on the Certificate of Incorporation. The company directors are Zeki Mustafa (Managing Director), Keith Poole (Director), Damien Cooper (Director) and Michael Horgan (Director).

B.1.5 An ownership drawing for the site is attached. The boundary showing Rehab Glassco's ownership is shown in blue ink.

Drawing WLA-02 (Attachment B.1): Ownership Plan

B.1.6 The site area and proposed EPA-licensed area (the 'red line' area) is 21,300m^2. The site is owned by Rehab Glassco (the 'blue line' area). The 'red line' and 'blue line' areas are identical, i.e. the site/proposed licensed facility is in the full ownership of Rehab Glassco.

B.2 Location of Activity

B.2.1 The site is located at Unit 4, Osberstown Industrial Park, Caragh Road, Naas, Co. Kildare, Ireland (National Grid Reference E 296767 N 220379), approximately 3.5km west of the town of Naas (see Figures **B.2.1** – **B.2.4**, source: www.osi.ie). The site is in close proximity to the M7 motorway; access to the Industrial Park is via the R409.

Figure B.2.1: Site Location – Regional Context

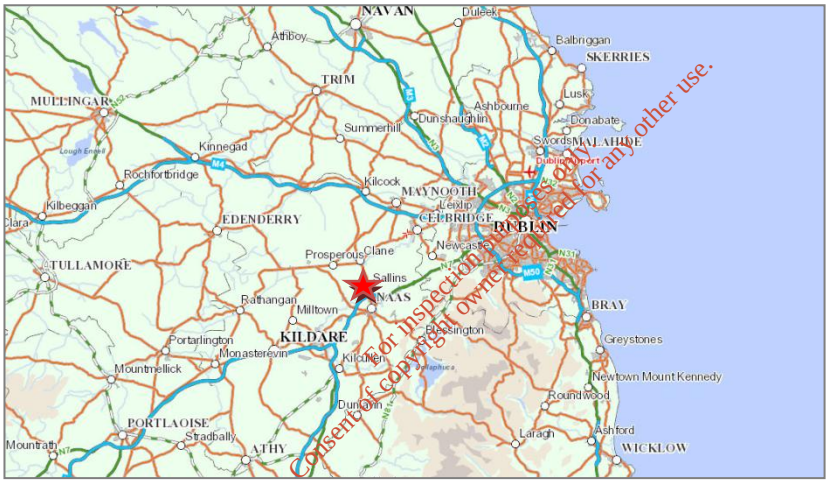


Figure B.2.2: Site Location – Proximity to Naas

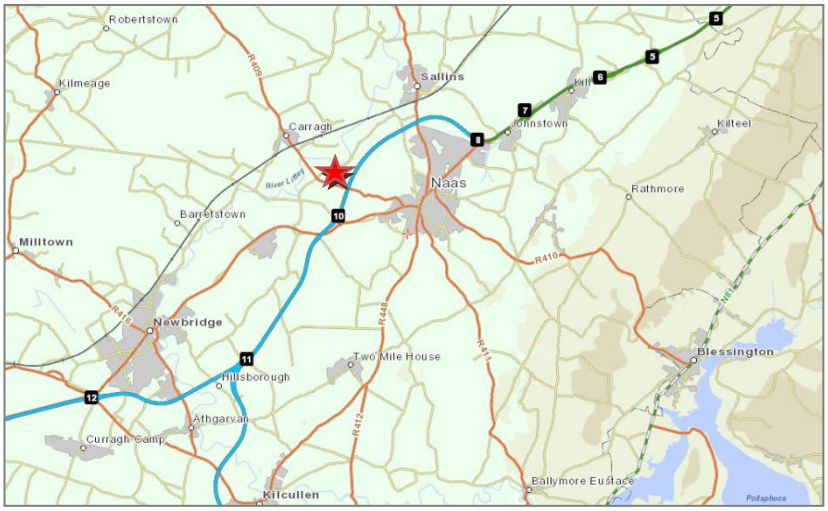


Figure B.2.3: Site Location – Local Setting

Figure B.2.4: Site Location – Local Setting (Aerial)

Please note that the development at the facility post-dates the aerial photograph

Source: osi.ie

B.2.2 The location map attached includes buildings, roads and streams within 500m of the boundary:

Drawing WLA-03 (Attachment B.2): Site Location Map (with 500m offset)

B.2.3 A site plan of the facility is attached. The proposed site layout for the purposes of this Waste Licence Application is the same as the existing site layout.

Drawing WLA-04 (Attachment B.2): Site Plan

B.2.4 The Services Plan attached includes services within 250m of the facility boundary:

Drawing WLA-05 (Attachment B.2): Services Plan

B.3 Planning Authority

B.3.1 The Planning Authority is Kildare County Council.

B.3.2 The planning history is provided in Table **B.3.1** and further detailed in:

Appendix B.3.1: Planning History Details

Table B.3.1: Planning history (Kildare County Council) for Site 4, Osberstown Industrial Park, Caragh Road, Naas[2]

App. Num	Applicant Name	Development Description	Application Date	Grant Date
11508	Rehab Glassco Ltd	For retention of free standing maintenance building with steel framed, fabric covered structure for company vehicle maintenance	18/05/2011	FURTHER INFORMATION REQUESTED 11/07/2011
101195	Rehab Glassco Ltd	For retention of free-standing plant with steel framed, fabric covered structure for glass recycling	25/11/2010	15/04/2011
10984	Rehab Glassco Ltd	For a new free standing plant with steel framed, fabric covered structure for glass recycling	24/09/2010	APPLICATION DID NOT PROCEED
10652	Rehab Glassco Ltd	For retention of change of use to office space from industrial space and retention of relocated and amended external staircase	28/06/2010	24/09/2010
0948	Glassco Recycling Ltd	To extend the site of an existing glass recycling plant to provide additional vehicle parking and external storage areas on land adjoining sites 4 and 5	22/01/2009	18/08/2009
061710	Glassco Recycling Ltd	Construction of glass recycling plant	11/08/2006	29/03/2007

B.3.3 The planning grants for planning ref. 06/1710 and 09/48 are provided in the appendix; these are the planning grants related to the operation of the facility (other planning applications/grants related to specific buildings on site, as detailed in Table **B.3.1**).

Appendix B.3.2: Planning Grant Ref. 06/1710

Appendix B.3.3: Planning Grant Ref. 09/48

[2] Source: Kildare County Council planning website

B.3.4 The Planning Authority (Kildare County Council) and the Environment Section of Kildare County Council have received written notification from the applicant of the application to the EPA for a Waste Licence.

Appendix B.3.4: Notifications to Kildare County Council re. Waste Licence Application

B.3.5 The site operates as a glass/can recycling facility, under a Waste Facility Permit issued by Kildare County Council. The Waste Permit Register number is WFP-KE-08-0357-01. A copy of the Waste Facility Permit is attached.

Appendix B.3.5: Waste Facility Permit WFP-KE-08-0357-01

B.4 Sanitary Authority

B.4.1 The Sanitary Authority is Kildare County Council.

B.4.2 A drainage drawing is attached:

Drawing WLA-06 (Attachment B.4): Site Drainage Drawing

B.4.3 Drawing **WLA-06** Site Drainage Drawing shows the foul sewer running from the site offices to the industrial park's sewer system. This sewer system discharges to the Osberstown Wastewater Treatment Works, Naas, Co. Kildare. The Osberstown Wastewater Treatment Works is located immediately to the east of the Rehab Glassco facility.

B.5 Other Authorities

B.5.1 Not applicable.

B.6 Notices and Advertisements

B.6.1 A copy of the text of the site notice is attached.

Appendix B.6.1: Site Notice

B.6.2 The location of the site notice is shown on Drawing **WLA-03**.

B.6.3 A copy of the newspaper page containing the Waste Licence Application advertisement is attached as Appendix **B.6.2**. The original application includes the complete newspaper in which the advertisement was placed.

Appendix B.6.2: Newspaper Advertisement

B.7 Type of Waste Activity

B.7.1 In accordance with the Third and Fourth Schedules to the Waste Management Acts 1996 to 2011[3], the principal waste activity is Fourth Schedule, Recovery Operations, Class ***R 5****: Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.* This activity at Rehab Glassco relates to the separation and recycling of glass.

B.7.2 Metals are also recovered at the facility (e.g. drinks cans, food tins); therefore Fourth Schedule, Recovery Operations, Class ***R 4****: Recycling/reclamation of metals and metal compounds*, is relevant.

B.7.3 In relation to the operation of the Drying Plant at Rehab Glassco, the following class of activity is relevant: ***R 12****: Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11)*.

B.7.4 Small amounts of residual material will be temporarily stored on-site pending off-site recovery or disposal at an appropriately licensed/permitted waste facility; therefore the following classes are relevant:

- Third Schedule, Disposal Operations, Class ***D 15***: *Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced)*.
- Fourth Schedule, Recovery Operations, Class ***R 13****: Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced)*.

B.8 Seveso II Directive

B.8.1 The activity is <u>not</u> 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.

[3] Including amendments by the European Communities (Waste Directive) Regulations, 2011

Attachment C:

Management of the Facility

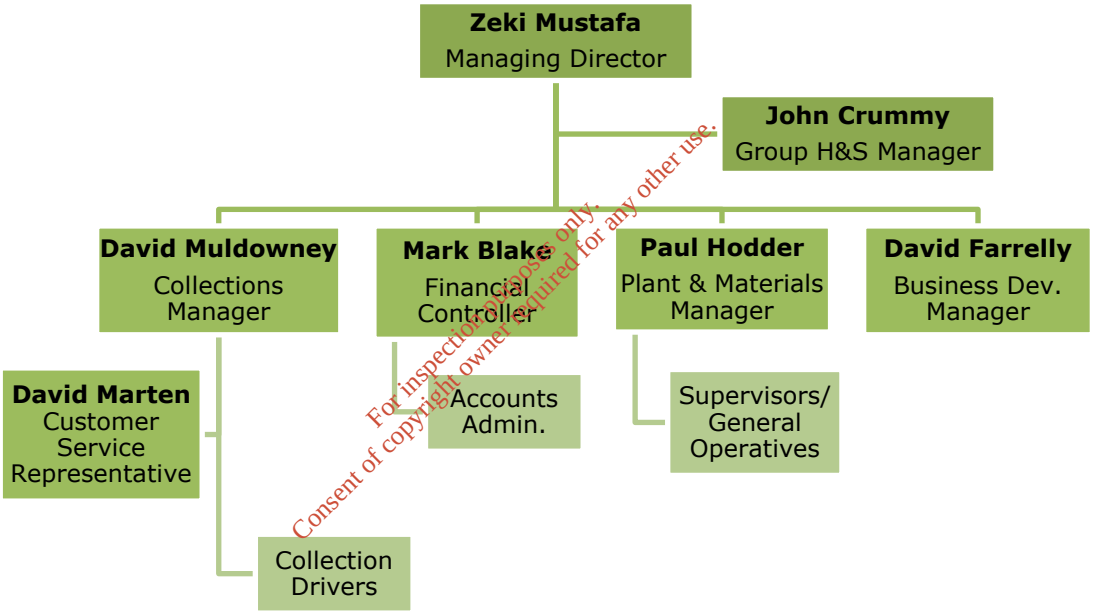
Attachment C: Management of the Facility

C.1 Technical Competence and Site Management

C.1.1 Rehab Glassco offers unparalleled experience in glass collection and recycling services in Ireland. The site has been an operational glass recycling facility since 2008, under the conditions of a Waste Facility Permit from Kildare County Council. Prior to the formation of Rehab Glassco, Glassco Recycling Ltd. operated in the glass recycling sector for 11 years, and Rehab Recycle operated in the glass recycling sector for 15 years.

C.1.2 The Rehab Glassco organisational chart is provided in Figure **C.1.1** below.

Figure C.1.1: Organisation chart



C.1.3 Duties, responsibilities and experience/qualifications of key staff are provided in Table **C.1.1**.

Table C.1.1: Management and competence

Name	Position	Duties and Responsibilities	Experience/ Qualifications
Zeki Mustafa	Managing Director	▪ Managing Director ▪ Company Development ▪ Strategic Planning & Operations ▪ Conformance with licence and regulatory requirements ▪ HR ▪ Key contact person for EPA communications	▪ BA Finance (Hons) ▪ Founder and managing director of Glassco Recycling Ltd. and subsequently Rehab Glassco ▪ 11 years' experience within Irish recycling sector ▪ Member of the Ferver Steering Group (Federation of European Glass Processors)
Mark Blake	Financial Controller	▪ Financial & Resourcing Provision ▪ Budgeting ▪ HR	▪ Management Accountant (CIMA) ▪ 17 years' financial management experience (IATA & CIMA)
David Muldowney	Collections Manager	▪ Scheduling and Logistics ▪ Waste Collection Permits	▪ BA Mechanical Engineering & Mathematics ▪ 5 years' experience within the Irish recycling sector ▪ Institution of Occupational Safety & Health (Managing Safely)
Paul Hodder	Plant Manager	▪ Facility operations ▪ Control of plant and equipment ▪ Implementation of licence conditions and controls	▪ Qualified electrician ▪ 4 years' experience within Irish recycling sector
David Farrelly	Business Development Manager	▪ Sales & Marketing ▪ Business development ▪ Development of Environmental Management System ▪ Licence compliance and reporting to EPA	▪ BBS (Services Marketing) ▪ 11 years' experience within Irish recycling sector ▪ FÁS/FETAC National Waste Management Training Programme ▪ Institution of Occupational Safety & Health training

C.1.4 The company is committed to training and development of staff, and encourages all employees to acquire the knowledge and skills required to maximise their performance in their current positions or in preparation for new job opportunities.

C.1.5 Rehab Glassco is part of Rehab Enterprises, Ireland's largest single non-Government employer of people with disabilities. Over 400 people are employed by Rehab Enterprises, more than half of whom have a disability, where the emphasis is on ensuring that people with disabilities play a full role in society, while managing a business that is financially sustainable. Rehab Enterprises is a division of the Rehab Group which has a proud 60-year tradition of providing high-quality services across Ireland, England, Scotland, the Netherlands and Poland.

C.1.6 Rehab Glassco was named 'Recovery Operator of the Year 2010' at the Repak Recycling Awards (large company category). The awards acknowledge best practice in packaging recycling and waste minimisation from around the country.

C.2 Environmental Management System (EMS)

C.2.1 Rehab Glassco is currently implementing an Environmental Management System in line with the International Standard ISO14001:2008. The company aims to achieve independent certification within the next 12 to 18 months.

C.2.2 The company has developed a number of environmental and operational control procedures. A copy of the company's Environmental Policy Statement is included as:

Appendix C.2.1: Rehab Glassco Environmental Policy Statement

C.3 Hours of Operation

C.3.1 The proposed hours of operation are: 24-hours, Monday to Sunday, including bank holidays.

C.3.2 It is not anticipated that the facility would routinely operate on a continuous 24/7 basis in the short-term; however the application seeks 24/7 operational hours on the basis that this may be required during busy periods for glass recycling in line with public/customer demand (e.g. Christmas time) or for operational reasons.

C.3.3 The proposed hours of waste acceptance are: 07:00 (7am) to 22:00 (10pm), Monday to Sunday, including bank holidays.

C.3.4 No construction/development works are proposed as part of this application.

C.3.5 No other relevant hours of operation are anticipated.

C.4 Conditioning Plan

C.4.1 This section is not applicable to this application (relevant to landfill licence reviews only).

Attachment D:

Infrastructure & Operation

Attachment D: Infrastructure & Operation

D.1 Infrastructure

D.1.1 The facility has completed a range of infrastructural works in line with the requirements of the Waste Facility Permit issued by Kildare County Council (WFP-KE-08-0357-01). Site infrastructure is shown on Drawing **WLA-04**, and in more detail on the following drawings:

Drawing WLA-07 (Attachment D.1): Unit Operations

Drawing WLA-08 (Attachment D.1): Main Process (Sorting) Plant General Layouts (Sheet 1)

Drawing WLA-09 (Attachment D.1): Main Process (Sorting) Plant General Layouts (Sheet 2)

Drawing WLA-10 (Attachment D.1): Main Process (Sorting) Plant – Elevations and Section

Drawing WLA-11 (Attachment D.1): Garage Building – Plans, Elevations and Section

Drawing WLA-12 (Attachment D.1): Drying Plant Building – Plans, Elevations and Section

D.1.a Site security arrangements including gates and fencing

D.1.2 Site security gates and fencing are in place at the site. The front part of the site (southern side, adjacent to entrance) is bounded by approximately 2.4 m-high paladin-type fencing; elsewhere, the boundary treatment consists of an approximately 2.5- to 3m-high block wall. The facility entrance is secured by sliding gates (also approximately 2.4m in height), which are locked overnight and/or when the facility is unsupervised. Gates, fencing and other boundary treatments are appropriately maintained; any defects will be duly remedied.

Photograph D.1.1: Site entrance security gate

D.1.3 The site currently operates a CCTV security system, which uses 10 specific camera points mounted on the Main Process Building, the Drying Plant and the garage building; the approximate locations of CCTV cameras are shown on drawing **WLA-04**. The CCTV security system covers the entire site including the site entrance, weighbridge area, one-way traffic system, garage/maintenance facility, input and output bays and general site operational activities.

Photograph D.1.2: CCTV camera positions on Main Process Building

D.1.4 The site is manned overnight for operational purposes and site personnel are available to deal with any emergencies and or security breaches. All site buildings are lockable.

D.1.b Designs for site roads

D.1.5 The site is located within the existing Osberstown Industrial Park, Naas, Co. Kildare, which has a well developed road network; therefore there is no requirement for new access roads to the site.

Photograph D.1.3: Access Road, Osberstown Industrial Park

D.1.6 Within the facility boundary, the site is fully laid in concrete hardstanding (with the exception of the wayleave, described in **D.1.c**). Traffic movement is controlled by a designated one-way system, as shown on Drawing **WLA-04**.

Photograph D.1.4: Site roads – concrete hardstanding

D.1.c Design of hardstanding areas

D.1.7 The site is overlaid by concrete hardstanding, with the exception of a designated wayleave 20m in width along the northern site boundary, which is dedicated for the Newbridge rising main. The wayleave area which falls within the Rehab Glassco site is covered by a removable hard plastic matting system, which allows for vehicle movements and temporary storage of materials and recycling receptacles in this area.

D.1.8 Site drainage and surface water management infrastructure is described in Attachment **D.1.k**.

D.1.d Plant

D.1.9 Site operations and recycling/recovery activities are described in Attachment **D.2**. The primary items of plant relate to: (i) the Main Process Building, and (ii) Drying Plant. No additional plant is proposed for the purposes of this Waste Licence Application.

D.1.10 The Main Process Building includes the following plant and equipment:

- Screens
- Crushers
- Magnetic separation units
- Eddy current separators
- Air classifiers
- Optical sorting equipment
- Conveyor systems
- Process control system
- Fire detection and alarm system

Photograph D.1.5: Interior of Main Process Building

D.1.11 The Drying Plant building houses a rotating drying unit, with associated conveyor, bagging and ancillary equipment.

Photograph D.1.6: Rotating Drying Unit

D.1.12 There is currently a single weighbridge on site, which will be maintained for ongoing use. The weighbridge is a Globeweigh UK Ltd. model; dimensions 15m x 3m, with a capacity of 50 tonnes.

Photograph D.1.7: Weighbridge position and operator's window

D.1.13 The weighbridge software is of bespoke design, commissioned by Rehab Glassco to meet their specific business requirements. The software is PC-based with all data stored in a local database, will full data back-up. The system meets all requirements of the current Waste Facility Permit in relation to recording of information on loads in and out and also provides an advanced level of reporting for both internal and external purposes. The software makes provision for the attachment of photographs assigned to specific input data, loads, vehicles or customers.

Photograph D.1.8: Screenshot of weighbridge software - sample load weigh-in

D.1.14 The Rehab Glassco facility operates/retains the following additional plant and equipment:

- Garaging/vehicle maintenance plant and equipment
- 3 x front-end loaders (Volvo and JCB)
- 2 x forklift trucks
- Various spare parts and incidentals for the main processing plant, drying plant and garage workshop
- 2 x interceptors and surface water management infrastructure (further detailed in Attachment **D.1.k**)
- A dust suppression system is proposed (further detailed in Attachment **F.1**)

Photograph D.1.9: Garage/vehicle workshop plant and equipment

D.1.e Wheelwash

D.1.15 A wheel cleaning system and a truck wash facility is currently in place on site. Vehicle washing and wheelwash facilities are provided using a power-washing system on site, if required; however, the majority of vehicles which enter/exit the site arrive on the public road network onto a fully concreted site and the risk of carrying mud/dirt off-site is insignificant. The power wash system is also provided to ensure that the Rehab Glassco collection vehicles are kept clean and well-presented. The power-wash area is serviced by a silt trap prior to entering the surface water management system.

Photograph D.1.10: Vehicle wash bay

D.1.f Laboratory facilities

D.1.16 No on-site laboratory for environmental analysis is proposed. Any samples collected as part of the environmental monitoring programme will be analysed by an independent accredited laboratory.

D.1.17 There is currently a quality control laboratory on site for the control of the processed glass cullet product (further detailed in Attachment **H.3**).

D.1.g Design and location of fuel storage areas

D.1.18 There are currently two fuel storage tanks on site (see Drawing **WLA-04**): Tank#1 is a 10,000-litre capacity diesel storage tank, located at the input bunker to the Main Process Building; Tank#2 is a 2,500-litre capacity diesel storage tank, located adjacent to the entrance to the Drying Plant. Tank#1 is used to fuel site machinery and Tank#2 fuels the drying unit.

D.1.19 Both tanks are bunded/double skinned.

D.1.20 The garage building is equipped with spill control equipment, drip trays and bunded pallets. This equipment will be maintained on site and replaced as necessary.

D.1.h Waste Quarantine Areas

D.1.21 There is an established waste inspection and quarantine procedure in place at the facility, as detailed in Attachment **H.2**. If a load(s) is required to be quarantined, it will be directed to an empty storage bay (as shown on Drawing **WLA-04**) and appropriately labelled/cordoned off. Smaller non-conforming items may be retained in the residual waste bay (as shown on Drawing **WLA-04**), pending removal off-site.

Photograph D.1.11: Storage bay

D.1.i Waste Inspection Areas

D.1.22 There is an established waste inspection and quarantine procedure in place at the facility, as detailed in Attachment **H.2**. All loads are inspected upon tipping in the active storage bay, as directed by the weighbridge operator. Should a load require more detailed inspection, it may be directed to an empty storage bay and appropriately labelled/cordoned off for further inspection and/or quarantine.

D.1.j Traffic Control

D.1.23 There is a one-way traffic management system in place on site, as indicated by directional signage (please see Photograph **D.1.2**). All incoming and outgoing vehicles must report to the weighbridge. All drivers are required to drive with due consideration for site safety. There are designated parking areas on site.

Photograph D.1.12: Designated parking area

D.1.k Sewage and Surface Water Drainage Infrastructure

D.1.24 A purpose-designed surface water management system has been installed at the facility (see Drawing **WLA-06**), to include an engineered surface water drainage network, a silt trap and 2 No. interceptors.

D.1.25 A silt trap is installed at the vehicle washing area on the southern site boundary.

D.1.26 The on-site surface water drainage system works in two parts (see Drawing **WLA-06**): the eastern portion of the site falls to the interceptor ('Interceptor#1') to the rear (east) of the Drying Plant; the western portion of the site drains to the interceptor ('Interceptor#2') and attenuation tank located in the north-west of the site.

D.1.27 The installed interceptors are detailed as follows:

- Interceptor#1: Klargester Class 1 ref NSBP018 or similar, which covers the eastern part of the site
- Interceptor#2: BPDA10000 Class 1 ref NSB18, which covers the western portion of the site

D.1.28 The discharge from Interceptor#2 is directed to storm drainage attenuation (underground hydro chambers). The output flow rate from the attenuation tank is controlled by a hydro-valve.

D.1.29 Discharge from Interceptor#1 and Interceptor#2 (via the attenuation tank/hydro-valve) combines at an on-site manhole close to the northern corner of the site. This combined site surface water emission discharges to a culvert and the industrial estate's surface water drainage system.

D.1.30 The interceptors are maintained and cleaned on a regular basis (servicing records confirm interceptor cleaning by a contractor on 11th August 2010; both interceptors were vacuumed out and washed down using a jet vac; the waste product was removed by tanker for appropriate off-site disposal).

D.1.31 The site has a sewer connection to the industrial estate's foul sewer network, which subsequently discharges into the adjacent local authority waste water treatment facility in Osberstown. There are no process emissions to sewer; the only emissions to sewer relate to on-site the toilet /sanitary facilities, located at the Main Process Building. The site's connection to the mains sewer is located outside the facility entrance, as shown on Drawing **WLA-06**.

D.1.l All other services

D.1.32 Electricity is supplied to the facility by a sub-station on site supplying 1,000 KVA. The main switch room is fitted with power factor correction which regulates power supply to the facility to maximise efficiency and minimise any losses.

D.1.33 The site is fully equipped with a modern telecommunications system, including broadband, internet access, email, telephone and fax.

D.1.m Plant sheds, garages and equipment compound

D.1.34 In addition to the Main Process Building and the Drying Plant detailed in **D.1.d**, there is an on-site garage building used for the purpose of standard vehicle maintenance for Rehab Glassco vehicles (no third party vehicles). The facility is equipped with spill pallets for containing oils, lubricants and other standard fluids used for this type of activity.

Photograph D.1.13: Spill pallet in garage building

D.1.n Site Accommodation

D.1.35 Site offices, including the weighbridge office, are contained within the Main Process Building. Offices are located along the western side of the building, and are separated from the plant operations. A staff canteen and toilets are also located in this area.

Photograph D.1.14: Site offices located at western side of Main Process Building

D.1.o Fire Control System, including water supply

D.1.36 A fire detection and alarm system is installed at the premises (L2/L3 standard). The system has been independently inspected, tested and commissioned, in accordance with I.S. 3218:2009.

D.1.p Civic Amenity facilities

D.1.37 No civic amenity facilities exist on site; no civic amenity facilities are proposed.

D.1.q Other waste recovery infrastructure

D.1.38 No waste recovery infrastructure, other than detailed herein, is currently proposed.

D.1.r Composting infrastructure

D.1.39 There is no composting infrastructure on site; no composting infrastructure is proposed.

D.1.s Construction & Demolition waste infrastructure

D.1.40 There is no construction & demolition waste infrastructure on site; no construction & demolition waste infrastructure is proposed.

D.1.t Incineration infrastructure

D.1.41 There is no incineration infrastructure on site; no incineration infrastructure is proposed.

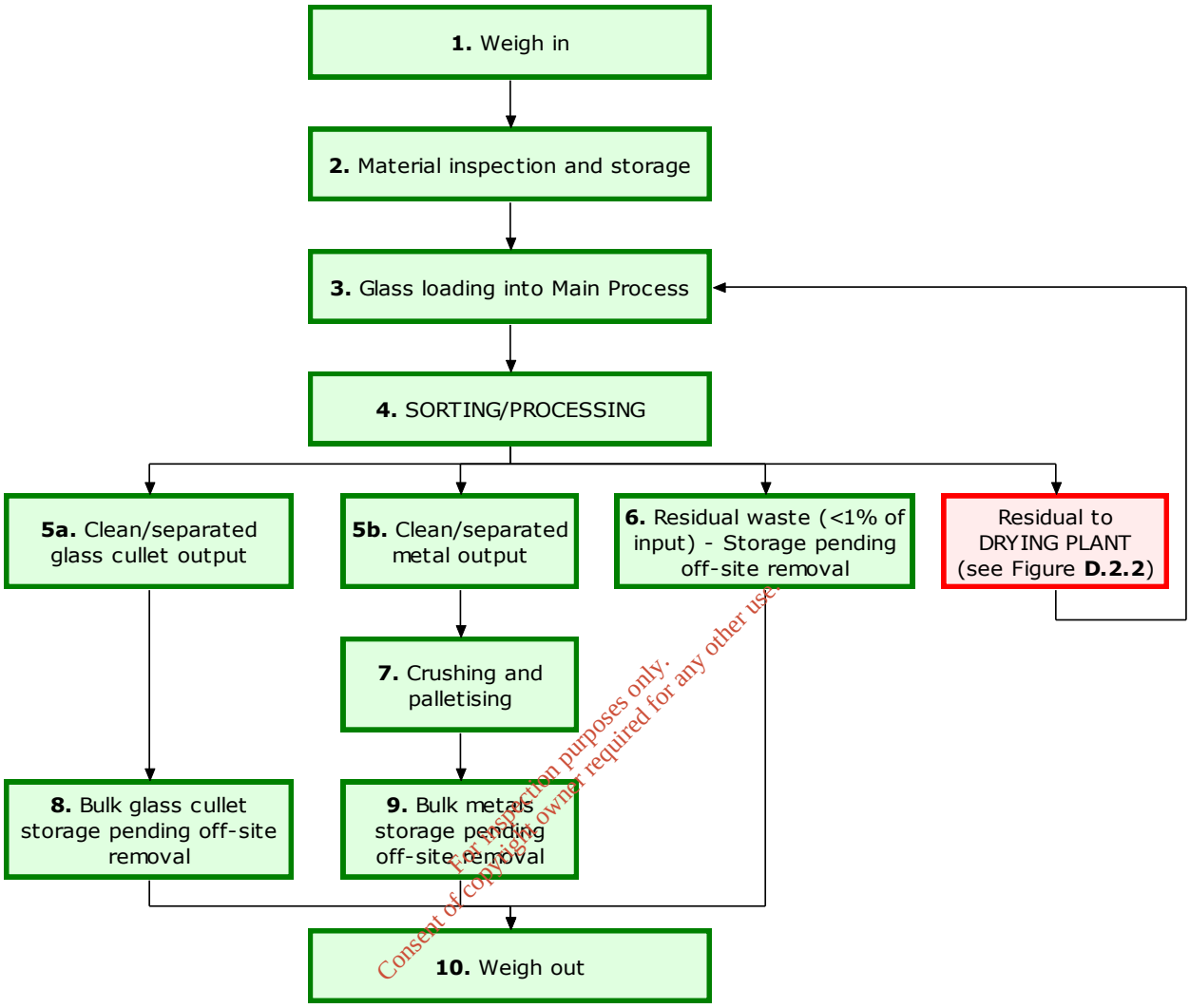
D.1.u Any other infrastructure

D.1.42 No other infrastructure is proposed.

D.2 Facility Operation

D.2.1 Unit operations are shown on Drawing **WLA-07** and shown in the flowcharts below, Figure **D.2.1** and Figure **D.2.2**. There are two unit operations on site: (i) main glass/can processing, and (ii) drying plant operation, as described below. Full details of the processing techniques are contained in Attachment **H.3**.

Figure D.2.1: Flowchart of facility operation: (i) Main Process



MAIN PROCESS

D.2.2 Figure **D.2.1** outlines the stages in the main process operation as follows:

1. **Weigh in –** all incoming vehicles are directed to the weighbridge (see Photograph **D.1.7**) where they are weighed in and full details recorded on the weighbridge software. The weighbridge operator directs the incoming vehicle to the appropriate storage bay for unloading.

2. **Material inspection and storage –** all loads are inspected upon tipping and stored in the storage bays pending processing.

   Photograph D.2.1: Input material inspection and storage bay

3. **Glass loading into Main Process –** material is loaded into a hopper located at the east of the Main Process Building by a front-end loader.

Photograph D.2.2: Glass loading into Main Process

4. **SORTING/PROCESSING –** a range of state-of-the-art sorting and processing techniques are applied to sort the input material into separated glass cullet product and cans/metals for use off-site. Full details of sorting/processing methodologies are provided in Attachment **H.3**.

5. **a. Clean/separated glass cullet output –** this is the major output of operations. Glass cullet is colour separated and sized to meet stringent customer specifications. This material is market-ready for use in glass/bottle manufacturing. The intermediate storage area for this material is in ground-level bays, which are located beneath the processing operations.

Photograph D.2.3: Clean/separated glass cullet output

5. **b. Clean/separated metal output –** ferrous and non-ferrous metals are sorted and separated from the input feedstock.

6. **Residual waste – storage pending off-site removal –** a small fraction of the input feedstock, generally less than 1% by weight, is residual waste extracted during sorting/processing. This residual material is stored in a dedicated ground-level bay, which is located beneath the processing operations.

Photograph D.2.4: Residual waste storage

Residual to DRYING PLANT – some outputs from the Main Process are diverted to the Drying Plant, as detailed below.

7. **Crushing and palletising –** cans are crushed, baled and stacked onto pallets for onward transportation and off-site recovery.

Photograph D.2.5: Can crushing and baling

8. **Bulk glass cullet storage pending off-site removal –** bulk storage of the processed glass cullet is within the storage bays in south of the site.

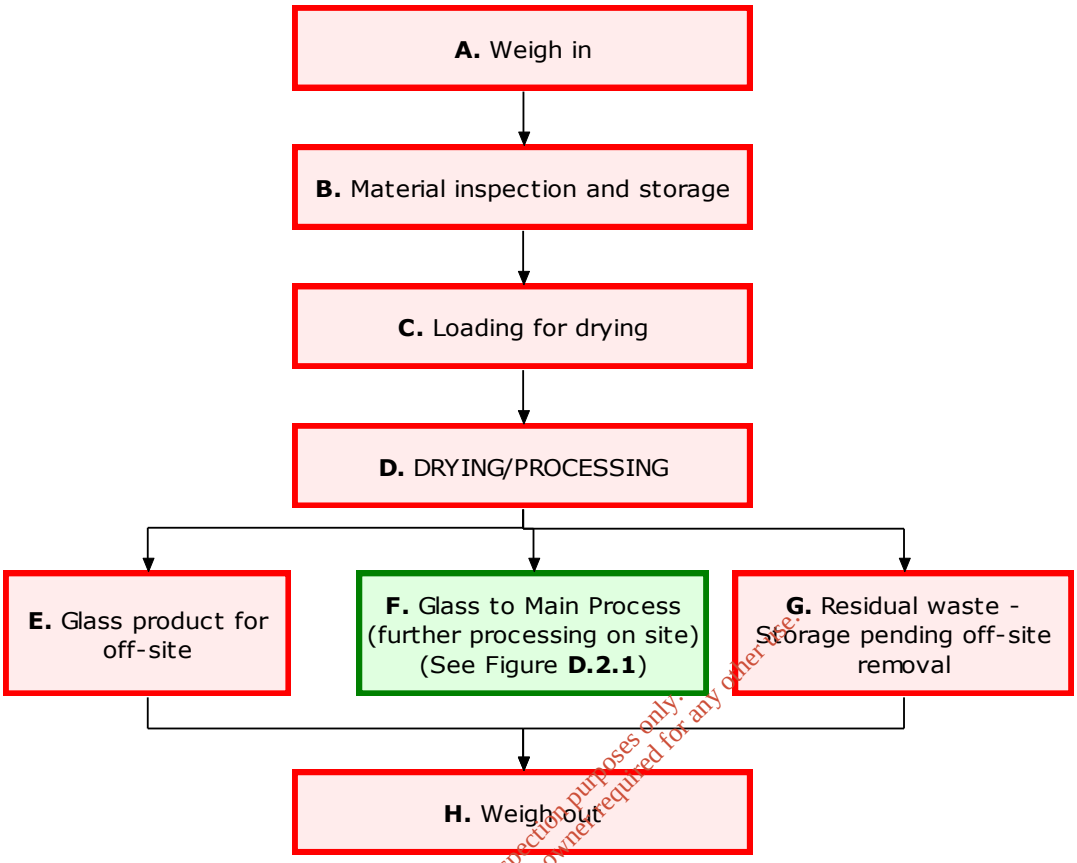
Photograph D.2.6: Bulk glass cullet storage

9. **Bulk metals storage pending off-site removal –** bulk storage of the processed/baled metals is within the storage bays in south of the site.

Photograph D.2.7: Baled cans/metal storage

10. **Weigh out –** all outgoing loads are weighed out at the weighbridge prior to exiting the facility.

Figure D.2.2: Flowchart of facility operation: (ii) Drying Plant



DRYING PLANT

D.2.3 Figure **D.2.2** outlines the stages in the drying plant operation as follows:

A. Weigh in – inputs are weighed on the facility weighbridge (see Photograph **D.1.7**) or belt weigher.

B. Material inspection and storage – all loads are inspected upon tipping and stored in the storage bays pending processing.

C. Loading for Drying – material is loaded into a hopper located at the southern side of the Drying Plant building by a front-end loader. Material initially passes through a manual picking line, where contaminants are removed.

Photograph D.2.8: Hopper and picking station at Drying Plant

D. DRYING/PROCESSING – material passes to the drying unit, which operates at approximately 170°C (further details in Attachment **H.3**).

E. Glass product for off-site – a granular glass product is bagged for use as a marketable product.

Photograph D.2.9: Crushed and graded product from the Drying Plant

F. Glass to Main Process – a considerable proportion (some 60% by weight) of the output from the Drying Plant is diverted back to the Main Process for glass sorting, separation and materials recovery.

Photograph D.2.10: Output from the Drying Plant for diversion to Main Process

G. Residual waste – storage pending off-site removal – a small fraction of the input feedstock to the Drying Plant, generally less than 1% by weight, remains as a residual waste output from the Drying Plant operations. This residual material is stored in a container positioned beneath the sorting cabin.

Photograph D.2.11: Residual waste from the Drying Plant

H. Weigh out – all outgoing loads are weighed out at the weighbridge prior to exiting the facility.

Attachment E:

Emissions

Attachment E: Emissions

E.1 Emissions to Atmosphere

E.1.1 There is one air emission point source – labelled 'A1' on Drawing **WLA-13**. The source of this emission point relates to the drying unit in the Drying Plant building. This air emission point is currently undergoing monitoring by a specialist consultant; details will be provided to the Agency when available.

Drawing WLA-13 (Attachment E): Emissions Points

E.1.2 There are potential fugitive emissions to air from dust and vehicle emissions, as discussed in Attachment **I**; however management and control procedures will be implemented to mitigate against such impacts.

E.1.3 Proposed dust monitoring arrangements are detailed in Attachment **F**.

E.2 Emissions to Surface Waters

E.2.1 Surface water management infrastructure, including 2 No. interceptors, is detailed in Attachment **D.1.k**.

E.2.2 As described in Attachment **D.1.k**, discharge from Interceptor#1 and Interceptor#2 (via the attenuation tank/hydro-valve) combines at an on-site manhole close to the northern corner of the site. This combined site surface water emission discharges to a culvert and the industrial estate's surface water drainage system: this is shown as point SW1 on Drawing **WLA-13**.

E.3 Emissions to Sewers

E.3.1 Toilet and washing facilities from the Office/Administration building are the only emissions to sewer. Drawing **WLA-06** Site Drainage Drawing shows the foul sewer running from the site offices to the industrial park's sewer system at emission point ref. SE1 (see Drawing **WLA-13**).

On-site or off-site treatment envisaged

E.3.2 Off-site treatment is proposed (as per current arrangements).

Name of the sewerage / WWTP undertaker and a copy of any agreement or permission by the undertaker to accept effluent

E.3.3 Sewage will be emitted to the adjacent Osberstown Wastewater Treatment Plant (via the Industrial Park's sewage infrastructure), operated by Kildare County Council.

Any further treatment of effluent by the undertaker, existing or proposed

E.3.4 No treatment is proposed.

Any problems of sewage treatment associated with the proposed emission

E.3.5 There are no issues arising.

Likely effects of the emission on sewer or sewage treatment maintenance operations

E.3.6 There are no anticipated effects on the sewer or maintenance operations.

Capacity, quality and integrity of the sewer

E.3.7 There are no known issues surrounding the capacity, quality and integrity of the sewer.

Likely effects of the emission on sewer integrity

E.3.8 There are no anticipated effects on sewer integrity.

Possible reactions of the emission with other effluent likely to be in the sewerage system

E.3.9 There are no anticipated impacts in this regard.

Nature of final emission to the receiving water and the estimated volumetric contribution of the site emissions to the total wastewater treatment plant Dry Weather Flow expressed as a percentage (% DWF)

E.3.10 The emissions to sewer from the facility are associated with on-site toilets and washing facilities, and would be considered insignificant in terms of nature and volume.

E.4 Emissions to Groundwater

E.4.1 There will be no direct discharges to groundwater or any groundwater abstractions as part of the development.

E.5 Noise Emissions

E.5.1 Potential noise emissions are associated with plant and equipment, vehicle movements and loading/unloading operations. A noise survey was carried out in 2010; See Attachment **I.6** for further information.

E.6 Environmental Nuisances

Bird Control

E.6.1 The acceptable waste types are inert; therefore nuisance from birds is deemed to be insignificant.

Dust Control

E.6.2 The following mitigation measures will be employed to prevent or minimise dust emissions associated with the facility:

- All processing will be conducted indoors
- Facility roads will be cleaned, as required
- Dust suppression system will be installed

Fire Control

E.6.3 Emergency response procedures will be prepared and submitted to the EPA as part of the Environmental Management Programme; further details are provided in Attachment **J.1**.

Litter Control

E.6.4 Litter impacts are not anticipated due to the nature of the materials accepted, i.e. glass, cans, etc.; however good housekeeping practices will be implemented, as well as routine site inspections.

Traffic

E.6.5 Access to the site will be controlled; the general public does not have access to the facility. There are designated staff, visitor and truck parking areas. On-site traffic flow patterns/routes, based on a one-way system, are shown on Drawing **WLA-04**. All incoming waste vehicles will be required to 'weigh in' at the weighbridge, marked on Drawing **WLA-04**. No traffic queuing is permitted outside the facility.

Vermin Control

E.6.6 Rehab Glassco retains the services of a pest control contractor and bait boxes are in place at a number of locations on site.

Attachment F:

Control & Monitoring

Attachment F: Control & Monitoring

F.1 Treatment, Abatement and Control Systems

Dust Suppression

F.1.1 A dust suppression system is being installed at the facility as follows:

- At the Main Processing building:
  - Front of building: 2 x swivel-head arc 'rain guns' capable of reaching a distance of 30m
  - Sides of Building: 1 x swivel-head arc sprinklers capable of reaching a distance of 14m on each side
  - Rear of Building: 4 x swivel-head arc sprinklers capable of reaching a distance of 14m

- At the Drying Plant building:
  - Front of building : 1 x swivel-head arc sprinklers capable of reaching a distance of 14m
  - Side of Building: 1 x swivel-head arc sprinklers capable of reaching a distance of 14m

Drying Plant

F.1.2 A baghouse filtration system is in place in the Drying Plant. Air emissions from the Drying Plant are being monitoring by a specialist consultant; details will be provided to the Agency when available.

Fire Control

F.1.3 A fire detection and alarm system is installed at the premises (L2/L3 standard). The system has been independently inspected, tested and commissioned in accordance with I.S. 3218:2009.

Surface Water Infrastructure

F.1.4 A purpose-designed surface water management system has been installed at the facility (see Drawing **WLA-06**), to include an engineered surface water drainage network, a silt trap and 2 No. interceptors – see Attachment **D.1.k** for further details.

F.2 Air Monitoring and Sampling Points

F.2.1 The air emission point at the Drying Plant is currently undergoing monitoring by a specialist consultant; details will be provided to the Agency when available, including a proposed ongoing monitoring regime, as appropriate.

Table F.7.1: Proposed air monitoring

Monitoring Location	Type	Grid Reference		Proposed Monitoring Frequency
		Easting	Northing	
A1[4]	Point source	221379	293767	To be confirmed

F.2.2 Proposed dust monitoring locations are shown on Drawing **WLA-14**. The proposed methodology for dust monitoring is the 'Bergerhoff' Method (German Standard Method VDI2119).

Drawing WLA-14 (Attachment F): Monitoring Locations

Table F.7.2: Proposed dust monitoring

Monitoring Location	Type	Grid Reference		Proposed Monitoring Frequency
		Easting	Northing	
D1[5]	Ambient	101849	288319	Annual[6]
D2[7]	Ambient	256531	232770	Annual[8]

F.3 Surface Water Monitoring and Sampling Points

F.3.1 One surface water emission monitoring point is proposed, as detailed below and shown on Drawing **WLA-14**.

Table F.7.3: Proposed surface water monitoring

Monitoring Location	Type	Grid Reference		Proposed Monitoring Frequency
		Easting	Northing	
SW1[9]	Water	111443	269368	Every 6 months

[4] Stack emission from Drying Plant
[5] This location is on the southern boundary of the site close to the site access

[6] Between May and September

[7] This location is on the north of the site close to the site access road adjacent to the nearest residential property

[8] Between May and September

[9] This is the combined emission to surface water from the site, from Interceptor#1 and Interceptor#2

F.4 Sewer Monitoring and Sampling Points

F.4.1 No monitoring of discharge to sewer is proposed.

F.5 Groundwater Monitoring and Sampling Points

F.5.1 No groundwater monitoring is proposed.

F.6 Noise Monitoring and Sampling Points

F.6.1 Annual noise monitoring is proposed at the nearest residential noise sensitive receptor (please see Drawing **WLA-14**).

Table F.7.4: Proposed noise monitoring

Monitoring Location	Grid Reference		Proposed Monitoring Frequency
	Easting	Northing	
NSL1[10]	166379	175718	Annual

F.7 Meteorological Data Monitoring and Sampling Points

F.7.1 No meteorological monitoring is proposed.

[10] This point is located to the west of the site approx. 30m from the site boundary

Attachment G:

Resources Use & Energy Efficiency

Attachment G: Resources Use & Energy Efficiency

G.1 Raw Materials and Product

G.1.1 The input material to the facility is glass and cans. Input glass may be colour-segregated or mixed-colour. Material is subject to a range of sorting/processing techniques, as described in Attachment **H.3**. There is no washing of material. No chemicals/additives are applied.

G.1.2 The process aims to maximise the recovery of glass and cans.

G.1.3 Processing operations in the Main Process (described in Attachment **H.3**) are powered by electricity.

G.1.4 All office space heating is powered by electricity (storage heaters).

G.1.5 Diesel is stored in 2 No. on-site tanks, as described in Attachment **D.1.g**. Diesel is used to fuel site vehicles, and as a fuel source for the Drying Plant.

G.1.6 Oils, lubricants, etc. associated with vehicle maintenance and garaging activities are stored in the Garage Building (described in Attachment **D.1.m**).

G.1.7 Water is used for drinking water and sanitary purposes.

G.1.8 Although the dust suppression system will initially use mains water, Rehab Glassco will further examine options for rainwater harvesting in the short- to medium- term.

G.1.9 No construction works are proposed; therefore no Construction and Demolition waste will be generated.

G.1.10 Records of fuel and water usage will be maintained on site and reported to the EPA as required.

G.2 Energy Efficiency

G.2.1 Rehab Glassco has invested in state-of-the-art sorting equipment for its plant at Osberstown. The equipment was procured with due regard for energy efficiency specifications.

G.2.2 Electricity is supplied to the facility by a sub-station on site supplying 1,000 KVA. The main switch room is fitted with power factor correction which regulates power supply to the facility to maximise efficiency and minimise any losses.

G.2.3 Energy use is monitored and measured and opportunities for improved energy performance are examined on an ongoing basis. The Plant Manager is a qualified electrician and ensures that energy is used efficiently. The Main Process operation is controlled by PC, which ensures optimal efficiency of all motors and equipment.

G.2.4 All yard and outdoor lighting at the site operates on photocells, ensuring that lights are activated only when light levels decrease.

G.2.5 Rehab Glassco is currently evaluating the feasibility of installing a wind turbine on site, subject to the necessary planning requirements, etc.

G.2.6 Records of energy use will be maintained on site and reported to the EPA as required.

Attachment H:

Materials Handling

Attachment H: Materials Handling

H.1 Waste Types and Quantities - Existing and Proposed

Waste Types

H.1.1 Rehab Glassco offers a nationwide collection and recycling service for glass and cans. Materials are collected from pubs, hotels, restaurants, sports clubs, financial institutions, office blocks, apartments and housing developments, council bring sites, civic amenity centres, industrial units and waste companies.

H.1.2 The following materials are accepted for recycling:

- bottles and jars
- aluminium and steel cans
- car windscreens
- double glazed units
- picture frame and window off-cuts
- wired glass and mirrored glass

H.1.3 The facility has the capability of sorting mixed glass into colour-separated glass cullet.

H.1.4 Acceptable wastes, categorised by European Waste Catalogue (EWC) code are listed in Appendix **H.1.1**. In addition, the Applicant seeks permission to accept other compatible waste streams, as may arise.

Appendix H.1.1: Acceptable Wastes (EWC codes)

Waste Quantities

H.1.5 Rehab Glassco (and previously Glassco Recycling Ltd) has operated a glass/can recycling facility at Osberstown Industrial Park, under Waste Facility Permit (WFP-KE-08-0357-01), since 2008. The input tonnages for 2008 to 2010 are provided in Table **H.1.1**.

Table H.1.1: Input tonnages to the glass/can recycling facility at Osberstown, 2008-2010

Year	Input tonnage
2008	34,028
2009	58,230
2010	55,367

H.1.6 As described in Attachment **B.0**, Rehab Glassco Ltd. was formed as a result of the acquisition of Glassco Recycling Ltd. by The Rehab Group in December 2009. The glass recycling facility operated by Rehab Recycle (part of The Rehab Group) in Ballymount, South Dublin closed in February 2011, from which date onwards all material was directed to the Osberstown facility. Input to the Rehab Recycle Ballymount facility in 2010 was 39,231 tonnes.

H.1.7 For the purposes of this Waste Licence Application, baseline input tonnages to the Osberstown facility were deemed to be the sum of the Osberstown facility 2010 input (55,367 tonnes) plus the Ballymount facility 2010 input (39,231 tonnes), i.e. 94,598 tonnes per annum (tpa).

H.1.8 The Applicant predicts future business growth and has forecast an approximate 5% increase in waste input year-on-year over a 10-year period; on this basis the proposed waste quantities are outlined in Table **H.1.2**. The Waste Licence application seeks an input tonnage of up to 150,000 tpa.

Table H.1.2: Proposed input tonnages

Year	Input tonnage (tpa)
2011	100,000
2015	120,000
2020 onwards	150,000

H.2 Waste Acceptance Procedures

H.2.1 Incoming loads are weighed in and full details recorded on the weighbridge software. The weighbridge operator directs the incoming vehicle to the appropriate storage bay for unloading.

H.2.2 A specific waste inspection and quarantine system is already in place on site; it is proposed to retain this current procedure for the proposed licensed facility as it is a proven and workable system.

H.2.3 Waste sources and inputs to the Rehab Glassco facility are controlled. All waste loads arriving at the facility are tipped and visually inspected prior to processing.

H.2.4 If, upon tipping, the operative notes any suspected contaminated/non-conforming wastes, the plant manager, assistant plant manager or shift supervisor is informed immediately. The manager will decide whether the load should be rejected or quarantined. Any contaminated/unsuitable loads may be recorded as a 'rejected load' and returned to source or removed to an appropriately licensed/permitted site, with the Agency's consent.

H.2.5 Any loads which may require to be further inspected or quarantined will be appropriately cordoned off in a storage bay pending further investigation and the material will be dealt with in the appropriate manner. The waste inspection and quarantine area is not a fixed location; rather an empty storage bay is assigned on an 'as required' basis.

H.2.6 Any smaller non-conforming items within an incoming loaded may be removed to the residual waste storage area or mobile hopper bins, pending removal off-site to an appropriately licensed/permitted facility. Such material (e.g. cardboard, black refuse sacks, bricks, concrete, ceramics, stones, porcelain, timber) can be handpicked out or mechanically removed.

H.2.7 If the material is deemed to be satisfactory, it is 'pushed back' for storage in the appropriate bay in the normal manner pending processing. If any material or batch is found to be unsuitable or contaminated after tipping, it will be immediately examined further and the bay will be cordoned off.

H.2.8 Acceptable material is removed from the storage bay for processing as described in Attachment **H.3** below.

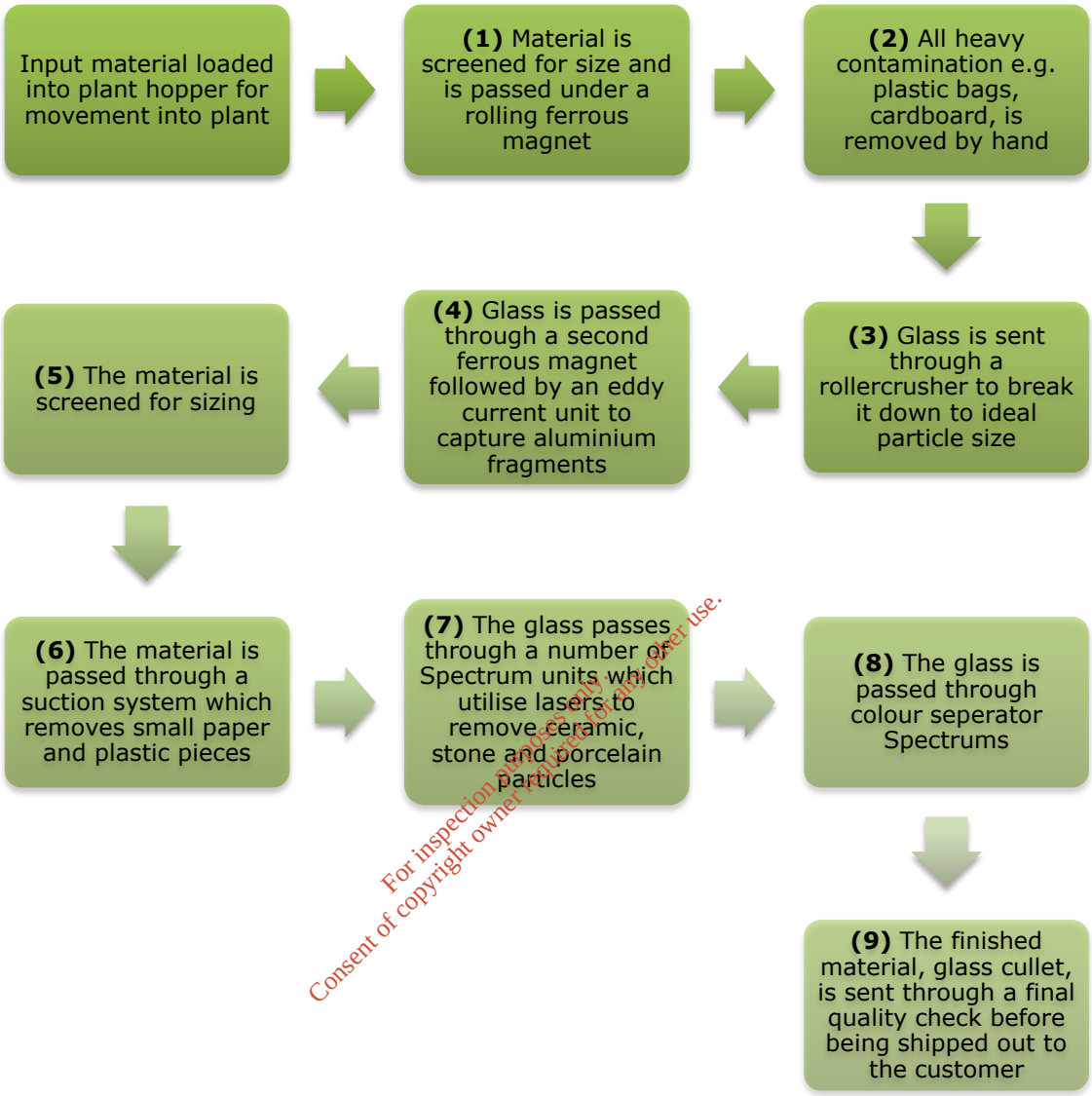
H.3 Waste Handling

MAIN PROCESS

H.3.1 A flowchart showing the stages associated with Main Process is provided in Attachment **D.2**; what follows below is a description of the 'sorting/processing' stage, once input material has been fed into the Main Process; please see **Figure H.3.1**.

H.3.2 The Rehab Glassco glass processing and cleaning plant is a state-of-the-art facility, relying on proven technology which includes sophisticated optical technology, screening systems and air classification to separate various mixes and colours of glass-based material into furnace-ready clean cullet for remanufacture into glass products. The process also uses manual pre-sort and quality control techniques to separate out certain contaminants at the early stages of the process.

Figure H.3.1: Flowchart of sorting/processing stage of Main Process



(1) Initial Screening and Ferrous Extraction

H.3.3 The first stage after the glass enters the plant is initial screening and sizing to remove bottle tops, neck rings, corks and labels using a dedicated screen and rolling ferrous magnetic system.

(2-3) Manual Sorting and Crushing

H.3.4 After the initial screening, the material is conveyed to the main manual pre-sort, which is located in an enclosed sorting platform at the early stages of this process and is a critical step where the glass can be visually inspected and gross contaminants (e.g. plastics bags, cardboard, any remaining liquids or 'short fills' in plastic bottles) are manually removed by dedicated pickers. Immediately after this step the glass is broken down and crushed into an ideal size using a roller-crusher; this presents the glass in a particle size range which is suitable for the onward process.

(4) Extraction of Ferrous and Non-Ferrous Metals

H.3.5 The next stage after the crushing and manual sorting involves the second ferrous extraction system using the over-band magnet to remove ferrous metals, mainly steel cans and other small/medium pieces of metals, e.g. various kitchen utensils and cutlery, ring pull-tops, etc. The material is then conveyed to the eddy current separator to remove non-ferrous items mainly aluminium cans, ring pull-tops and other small fragments.

Photograph H.3.1: Eddy Current Separator Unit

(5) Further Screening and sizing

H.3.6 The glass is further screened and sized to remove residual matter and fine particulate matter.

(6) Air Classification

H.3.7 Once the glass has been separated from other contaminants including ferrous /non-ferrous metals, it is further processed by using air classification systems (cyclone/vortex suction/air blower methods) to further classify the heavy from the light material (e.g. small plastic components, labels, caps, foil, tops and dust). The air classification systems can handle large volumes of material flow containing glass, paper, foil, etc. and can be highly effective in cleaning the glass and removing further light contaminants.

(7-8) Optical Sorting

H.3.8 The glass is conveyed and presented for onward optical separation using the dedicated sorting systems known as Spectrum units. These optical sorting systems use high-tech sensors (cameras) with high velocity optical detectors which identify the opacity and true colour of the glass. Off-colour contamination and non-transparent contaminants such as ceramics, stones and porcelain (CSP) are rejected and the offending material is 'blown out' by high velocity compressed air jet nozzles at pinpoint accuracy, to minimise loss of good cullet (processed furnace-ready glass).

H.3.9 The plant also uses another combination series of state-of-the art optical machines known as Speckmags in the material flow to process glass by true colour and clean the glass free from non-glass contaminants (CSP), including ferrous and non-ferrous items. The removal efficiency of both such systems are quoted by the manufacturers to be in the region of >95% purity levels. This whole processing operation is currently achieving in the region of approximately <1% residual fraction as an output of the total input, which is consigned to landfill.

H.3.10 The Rehab Glassco plant and the optical systems has been designed to provide features for touch-screen interface control for setting up and day-to-day programme management, and built-in modems for remote diagnostics from the manufacturer. The plant makes use of the modern power management systems, and the optical systems, screening and air classification system have been designed for easy access to allow for maintenance and cleaning.

Photograph H.3.2: Spectrum Unit showing glass input conveyor

(9) Final QC

H.3.11 The finished material, glass cullet, is sent through a final quality check before being transported to the customer.

H.3.12 There is currently a glass cullet quality control (QC) laboratory on site. The function of the laboratory is to physically sample the processed glass for contaminants, mainly in the form of ceramic, stone and porcelain (CSP) material, prior to removal off-site. The weight of the contaminants, date, colour of main glass sampled are recorded on the sampling sheet, including photographic evidence of the CSP, which is placed into bag and retained for record-keeping purposes. The glass sampling procedure is repeated at a frequency of approximately every 30 minutes. Rehab Glassco operates an internal Standard Operating Procedure for the QC laboratory.

Photograph H.3.3: Glass cullet quality control (QC) laboratory (1)

Photograph H.3.4: Glass cullet quality control (QC) laboratory (2)

DRYING PLANT

H.3.13 A flowchart showing the stages associated with Drying Plant is provided in Attachment **D.2**.

H.3.14 The on-site Drying Plant is used to treat certain residual glass materials from the Main Process on site, i.e. glass rejected from the Main Process on 'first pass'. Currently the Drying Plant is also processing a residual fraction from the (now closed) Rehab Recycle glass recycling facility in Ballymount, Co. Dublin (please see Attachment **B.0** for further details). For the purposes of this application, it is proposed that compatible glass-based waste streams may also be accepted from third-party sources as input to the Drying Plant, to facilitate onward glass sorting, processing and materials recovery.

H.3.15 Feedstock to the Drying Plant was previously consigned to landfill; the Drying Plant process now facilitates a significantly increased level of materials recovery.

H.3.16 The Drying Plant operation includes magnetic extraction, manual pre-sort, drying, screening, crushing and separation of the clean glass into various size fractions. Material is fed via a hopper and passes under an over-band magnet to a manual picking line, where gross contaminants are picked out. Acceptable material passes from the picking line to the rotating drying unit, which operates at approximately 170°C. A baghouse filtration system is in place in the Drying Plant.

H.3.17 The glass output from the drying unit is screened into the following fractions: >8mm fraction, which is transferred onwards to the main processing plant for re-processing (this fraction forms approximately 60% of the output by weight from the drying plant) (see Photograph **D.2.10**); the <8mm fraction is crushed and screened to form various grades of glass fines and is marketed as a saleable product (see Photograph **D.2.9**).

H.3.18 The residual fraction from the Drying Plant is approximately <0.5% by weight of the total input. This contaminant material (see Photograph **D.2.11**) is currently consigned to landfill; however future potential recovery options will be considered, as appropriate.

H.4 Waste Arisings

H.4.1 Small amounts of residual waste arise from the Main Process and the Drying Plant operations, as described in Attachment **H.3**. Residue consigned to landfill is minimised through the operation of the Drying Plant. Overall waste residue is estimated at approximately <1% of input, by weight.

H.4.2 Non-process wastes generated at the facility include:

- General municipal-type waste
- Office paper waste
- Waste from garaging activities, e.g. waste oil, oily rags, used filters

H.4.3 Records of all wastes removed from site are retained by Rehab Glassco. Only appropriately licensed/permitted waste contractors and facilities are used.

H.5 Re-use and Recycling

H.5.1 European Communities (Waste Directive) Regulations 2011 (31(1)) makes provision for the separate collection of paper, metal, plastic and glass. This approach is very much in keeping with Rehab Glassco collection and processing procedures. The waste input to the Rehab Glassco facility in Osberstown comprises of materials collected at the bring bank network throughout the country, as well as collections of segregated glass/metals from commercial and other sources.

H.5.2 The Rehab Glassco facility has the sorting capabilities to successfully sort and segregate mixed-colour glass (as described in Attachment **H.3**).

H.5.3 The facility produces glass cullet, which is a market-ready raw material used to manufacture new glass products; this is known as 'closed-loop' recycling.

H.5.4 The environmental benefits of closed-loop glass recycling are well documented, including substantial energy savings[11], with positive climate change implications, and avoiding the need for quarrying and related emissions associated with using virgin raw materials for glass manufacturing.

H.5.5 The Rehab Glassco facility plays a critical role in the recycling and recovery of glass in the context of the Irish waste management sector. The operation of this facility makes a substantive contribution towards meeting Ireland's recycling and recovery targets for glass: it accounts for approximately 80% of the country's glass recycling.

H.5.6 Operation of the Drying Plant offers an added opportunity for materials recovery by recovering materials previously consigned to residual waste disposal.

H.5.7 The residual output from the facility, which is currently non-recoverable, is extremely low at approximately <1% (by weight) of total input, demonstrating the recovery efficiencies of

[11] WRAP (UK) estimates that for every tonne of glass recycled, 314 kg of CO_2 emissions are avoided (closed-loop recycling). Every tonne of glass recycled prevents the quarrying of 1.2 tonnes of raw materials. The energy saving from recycling one bottle will:

- Power a 100 watt light bulb for almost an hour.
- Power a computer for 20 minutes.
- Power a colour TV for 15 minutes.
- Power a washing machine for 10 minutes.

the plant, as well as the level of control applied by the Waste Acceptance Procedures/at the source-segregation stage.

H.5.8 The acceptable waste types would not be considered hazardous waste, i.e. the waste does not display any property listed in the Second Schedule to the Waste Management Act 1996 (as amended).

Attachment I:

Existing Environment & Impact of the Facility

Attachment I: Existing Environment & Impact of the Facility

I.1 Assessment of atmospheric emissions

Existing Environment - Air

I.1.1 The EPA and local authorities operate air monitoring stations. The National Air Quality Monitoring Programme sets out the basic framework for the measurement of air quality in Ireland over the coming years; it provides the basis for continued development and expansion of monitoring and assessment for a variety of purposes.

I.1.2 The Rehab Glassco site falls within 'Zone D' air quality zone, unrestricted coal area, as per EPA data. The main areas defined in each air quality zone are:

- Zone A: Dublin Conurbation
- Zone B: Cork Conurbation
- Zone C: Other cities and large towns comprising Galway, Limerick, Waterford, Clonmel, Kilkenny, Sligo, Drogheda, Wexford, Athlone, Ennis, Bray, Naas, Carlow, Tralee, Dundalk, Navan, Letterkenny, Celbridge, Newbridge, Mullingar and Balbriggan.
- **Zone D: Rural Ireland, i.e. the remainder of the State excluding Zones A, B and C.**

I.1.3 The Rehab Glassco site is immediately adjacent to Naas, Co. Kildare 'Zone C'. The EPA collected air quality data at Naas from 15/10/2003 to 22/04/2004. Air quality in Naas was deemed 'good' (based on measurements of ozone, nitrogen dioxide, PM10 and sulphur dioxide) and the monitoring point fell within 'Zone C'. Zone C includes cities and large towns in Ireland, other than Dublin and Cork. The EPA's air monitoring station at Naas was located in the centre of the town, opposite St David's church on the Sallins road.

I.1.4 Celbridge is the only remaining active EPA air monitoring station in Co. Kildare. Monitoring began in July 2010 and ceased in January 2011, although particulate matter monitoring is still ongoing at the site. The Celbridge monitoring station is located in the grounds of St. Raphael's property, just outside the centre of Celbridge. Monitoring was done using continuous monitors for carbon monoxide, sulphur dioxide, nitrogen oxides, Benzene, and PM10. Air quality in Celbridge is deemed 'good' (based on measurements of ozone, nitrogen dioxide, PM10 and sulphur dioxide) and the monitoring point falls within 'Zone C'.

Monitoring Records - Air

I.1.5 The Waste Facility Permit (WFP-KE-08-0357-01) (Schedule C.1) requires annual dust monitoring at the Rehab Glassco facility.

I.1.6 An environmental dust monitoring report dated September 2010 by ORS Environmental Consultants stated that "*dust deposition was monitored at two locations at the Rehab Glassco site, Osberstown Industrial Park, Caragh Road, Naas, Co. Kildare between the 5th August and 2nd September 2010. The dust fall concentrations laid down in the waste facility permit No. WFP-KE-08-0357-01 which specified a limit of 350mg/m²/day. All results fell below the stated threshold*".

I.1.7 The dust monitoring locations were as follows. Environmental dust monitoring results for period 5th August to 2nd September 2010 are shown.

Table I.1.1: Dust monitoring 2010

Monitoring Location	Description	Dust deposition mg/m²/day	WFP limit mg/m²/day
D1	This location is on the southern boundary of the site close to the site access	199	350
D2	This location is on the north of the site close to the site access road adjacent to the nearest residential property	162	350

Potential Impacts - Air

I.1.8 Potential air impacts relate to:

- dust emissions
- vehicle emissions
- emissions from the drying plant

I.1.9 There is no gas generation potential. The materials are non-odorous.

I.1.10 Potential dust emissions arise from loading and unloading operations, and from material storage activities. A dust suppression system is being installed, as detailed in Attachment **F.1**.

I.1.11 Vehicle emissions associated with heavy vehicles entering and exiting the facility are not deemed to be significant. Such emissions will be controlled by operational procedures, e.g. vehicle maintenance and testing, turning off vehicles instead of 'idling', as appropriate.

I.1.12 A baghouse filtration system is in place in the Drying Plant. Air emissions from the Drying Plant are being monitoring by a specialist consultant; details will be provided to the Agency when available, including a proposed ongoing monitoring regime, as appropriate.

Conclusion - Air

I.1.13 Dust mitigation measures will be employed to minimise on-site dust generation and prevent dust emissions off-site. Annual dust monitoring is proposed, between the period May to September; see Attachment **F**.

I.1.14 Further details in relation to air emissions from the drying plant will be made available to the Agency on completion of monitoring works.

I.1.15 Emissions of pollutants (as defined in the Waste Management Acts 1996 to 2010 and Air Pollution Action 1992 and 1987 respectively) to the atmosphere are not likely to impair the environment.

I.2 Assessment of impacts of surface water discharges on the receiving waters

Existing Environment - Surface Water

I.2.1 Since 2000, water management in the EU has been directed by the Water Framework Directive (WFD). This Directive requires Member States to divide the country into water management units called River Basin Districts (RBD) that recognise hydrological boundaries rather than administrative boundaries. The island of Ireland has been divided into 8 such units, with a Local Authority in each district assigned as Lead Local Authority.

I.2.2 The Rehab Glassco site falls with the Eastern Region; Dublin City Council is the lead local authority. The site is with the Liffey river catchment (Code IE09_01). The Liffey is a 'Nutrient Sensitive Area'. The Liffey river waterbody status is 'moderate'.

I.2.3 The River Liffey runs approximately 130 metres to the north of the Rehab Glassco site. There are two EPA monitoring stations on the River Liffey close to the site. There is an active EPA water monitoring location at Castlekeely Ford (RHS) (EPA code 09L011200) on the River Liffey, approximately 1.3 km to the north-east of the Rehab Glassco site. The EPA monitoring station located at Caragh Bridge (EPA code 09L011100), approximately 1.3 km to the north-west of the site, was last monitored in 1991.

I.2.4 The Castlekeely Ford (RHS) monitoring station was last measured in 2007. It recorded a river water quality ('Q value') of 3-4. The Q Value system describes the relationship between water quality and the macro-invertebrate community in numerical terms. Q5 waters have high diversity of macro-invertebrates and good water quality, while Q1 have little or no macro-invertebrate diversity and bad water quality. Intermediate values, Q1-2, 2-3, 3-4 etc denote transitional conditions.

I.2.5 The EPA monitoring station located at Caragh Bridge (EPA code 09L011100) was assigned a Q rating of 4-5, indicating 'good' river quality status in 1991 (when it was last monitored).

I.2.6 A small surface water drainage ditch runs along the eastern boundary of the Rehab Glassco site, in a NW-SE direction.

Potential Impacts - Surface Water

I.2.7 The most significant potential impact on surface water relates to an uncontrolled/accidental release into the surface water system; however surface water management infrastructure, to include a silt trap and oil interceptors have been installed at the site, as detailed in Attachment **D.1.k**.

Conclusion - Surface Water

I.2.8 Surface water management infrastructure has been installed at the facility. Monitoring of surface water discharge is proposed in Attachment **F**.

I.3 Assessment of impact on receiving sewer

Existing Environment – Wastewater

I.3.1 There is no process emission to sewer. The only emission to sewer associated with the facility is from toilets on site.

I.3.2 Drawing **WLA-06** Site Drainage Drawing shows the foul sewer running from the site offices to the industrial park's sewer system. This sewer system discharges to the Osberstown Wastewater Treatment Works, Naas, Co. Kildare. The Osberstown Wastewater Treatment Works is located immediately to the east of the Rehab Glassco facility.

Potential Impacts - Wastewater

I.3.3 No significant wastewater impacts are anticipated.

Conclusion - Wastewater

I.3.4 No significant wastewater impacts are anticipated.

I.4 Assessment of impact to groundwater and soils

Existing Environment - Soils and Groundwater

I.4.1 As per the GSI National Draft Generalised Bedrock Map, the site is located on Dinantian Pure Bedded Limestones (DPBL). The quaternary geology is shown as 'drift'.

I.4.2 The GSI National Draft Bedrock Aquifer Map describes the aquifer at the site location as a 'Regionally Important Aquifer - Karstified (diffuse); (category Rkd) '. The site is moderately vulnerable. This site is not on a gravel aquifer, as per the GSI National Draft Gravel Aquifer Map.

I.4.3 The site is not within, nor adjacent to, a Source Protection Area.

I.4.4 EPA records (2007-2009) for the groundwater monitoring stations in closest proximity to the site are detailed as follows.

Table I.4.1: EPA groundwater monitoring stations

		Faecal Coliforms [12]	Phosphate [13]	Nitrate [14]	Ammonium [15]
Kildare	Pollardstown Fen - MB7 (Upper)	290	0.024	9	0.059
Kildare	Pollardstown Fen - MB7 (Middle)	120	0.024	8.8	0.041

[12] Max Faecal Coliform Count - No. per 100ml
[13] Average Molybdate Reactive Phosphate Concentration - mg/l P
[14] Average Nitrate Concentration - mg/l NO3
[15] Average Ammonium - mg/l N

		Faecal Coliforms [12]	Phosphate [13]	Nitrate [14]	Ammonium [15]
Kildare	Pollardstown Fen - MB7 (Lower)	31	0.04	8.7	0.05
Kildare	Pollardstown Fen - Hangedmans Arch	670	0.021	10.7	0.067
Kildare	Curragh Camp - McDonagh Well	0	0.009	20.7	0.078
Kildare	Hare Park – Curragh Camp	0	0.011	14.6	0.107
Wicklow	Ashtown GWS / Blessington	0	0.01	20.7	0.14

Potential Impacts - Soils and Groundwater

I.4.5 No significant impacts on soils or groundwater are anticipated. Surface water management controls, as detailed in Attachment **I.2**, would also serve to mitigate potential surface water contaminants entering groundwater.

Conclusion - Soils and Groundwater

I.4.6 No significant impacts on soils or groundwater are anticipated.

I.5 Ground and/or groundwater contamination

I.5.1 There is no known ground and/or groundwater contamination, historical or current, on or under the site. The site has been in operation as a waste facility (under permit from Kildare County Council) since 2008. This site is within an industrial park, which was greenfield prior to development.

I.6 Noise Impact

Existing Environment - Noise

I.6.1 Potential noise emissions associated with the facility operation relate to vehicle movements, loading/unloading activities and operation of plant and equipment.

I.6.2 It is noted that the facility is located within an industrial park, and the site's nearest neighbours are a wastewater treatment works and building supplies business. The nearest residential house is some 40m from the Rehab Glassco boundary.

Monitoring Records - Noise

I.6.3 The Waste Facility Permit (WFP-KE-08-0357-01) (Schedule C.2) requires annual noise monitoring at the Rehab Glassco facility.

I.6.4 An environmental noise survey report dated August 2010 by ORS Environmental Consultants stated that "*it was deemed that noise output from the Rehab Glassco plant was under the threshold as set out in the waste permit. Although the night-time survey exceeded the threshold it was due to the level of ambient noise from an adjacent site.*"

Table I.6.1: Noise monitoring 2010

Monitoring Location	Description	Daytime dB(A)[16]	Night-time dB(A)[17]
NSL1	This point is located to the west of the site approx. 30m from the site boundary	47[18]	51[19]
-	Limit values prescribed by Waste Facility Permit	55	45

Potential Impacts – Noise

I.6.5 Potential noise emissions associated with the facility operation relate to vehicle movements, loading/unloading activities and operation of plant and equipment.

I.6.6 All glass processing is done indoors and the facility employs best-in-class technology and equipment, incorporating noise-minimisation specifications insofar as possible.

I.6.7 Ear defenders are issued to staff working in the facility.

I.6.8 Due consideration is given to proposed opening and operational hours, as detailed in Attachment **C.3**, which will serve to mitigate potential neighbour impacts.

Conclusion - Noise

I.6.9 Noise mitigation measures will be employed to minimise potential noise nuisance. Annual noise monitoring is proposed at the nearest residential noise sensitive receptor; see Attachment **F**.

I.7 Assessment of Ecological Impacts & Mitigation Measures

Existing Environment – Ecology

I.7.1 The site is not within, nor adjacent to, any National Heritage Areas, proposed National Heritage Areas, Special Areas of Conservation or Special Protected Areas (Source NPWS).

I.7.2 The site has been in operation as a waste facility (under permit from Kildare County Council) since 2008 and is located within an industrial park.

[16] $L_{Aeq,\ 30\ min}$

[17] $L_{Aeq,\ 30\ min}$

[18] The daytime $L_{A10,\ 30\ min}$ was recorded at 49 dB(A); the daytime $L_{A90,\ 30\ min}$ was recorded at 43 dB(A)

[19] The night-time $L_{A10,\ 30\ min}$ was recorded at 48 dB(A); the night-time $L_{A90,\ 30\ min}$ was recorded at 41 dB(A)

Potential Impacts – Ecology

I.7.3 No significant impacts on ecology are anticipated.

Conclusion - Ecology

I.7.4 No significant impacts on ecology are anticipated.

Attachment J:

Accident Prevention & Emergency Response

Attachment J: Accident Prevention & Emergency Response

J.1 Accident Prevention and Emergency Response

J.1.1 A copy of Rehab Glassco's Safety Policy Statement is included as:

Appendix J.1.1: Safety Policy Statement

J.1.2 Rehab Glassco has documented and implemented Emergency Response Procedure Guidelines. The Health & Safety Officer is responsible for ensuring that all relevant personnel are trained on this procedure. The procedure outlines actions to be taken in response to the following potential emergency situations:

- Bodily injury
- Vehicle breakdown
- Vehicle overturn
- Waste spillage
- Fire
- Hazardous waste
- Any operation that may lead to environmental pollution
- Emergency contact phone numbers
- List of emergency response equipment stored on vehicles

J.1.3 All staff receive Health & Safety induction training and are fully equipped with PPE.

J.1.4 A fire detection and alarm system is installed at the premises. They system has been independently inspected, tested and commissioned, in accordance with I.S. 3218:2009.

J.1.5 Rehab Glassco has a documented evacuation procedure in place, indicating steps to be taken in an emergency, including the location of the evacuation assembly point.

J.1.6 Rehab Glassco has implemented site safety procedures which employees, visitors and contractors must adhere to, including the following:

- The speed limit for all traffic on the site is 5km/h
- All delivery and collection vehicles must report to the weighbridge on arrival
- A one way system is in operation on the site. Traffic must drive in a clockwise direction from the weighbridge around the building.
- Personal Protective Equipment (PPE) must be worn
- Mobile phones are prohibited while using any plant or vehicle

- All incidents and accidents of any nature are to be reported to the site office immediately

J.1.7 Diesel is stored in double-skinned tanks, as detailed in Attachment **D.1.g**. Potentially contaminating material stored in the garage building is retained on spill pallets. The surface water drainage system to include 2 No. interceptors is described in Attachment **D.1.k** and shown on Drawing **WLA-06**.

J.1.8 Copies of insurance certificate are attached:

Appendix J.1.2: Insurance Certificate

Attachment K:

Remediation, Decommissioning, Restoration and Aftercare

Attachment K: Remediation, Decommissioning, Restoration and Aftercare

K.1 Cessation of Activity

K.1.1 If the decommissioning of part or all of the Rehab Glassco facility should be required, the following programme will be put in place. The decommissioning of the site will be carried out in a phased process. It is envisaged that the phased approach will be carried out as follows:

1. The site will stop accepting materials at the site after a specified date and all remaining materials which have been deposited at the site prior to this date will be processed as per the current operations.
2. Plant and equipment will be disassembled and decommissioned and materials sent for reuse, recovery or disposal, as appropriate.
3. After all material has been removed a programme of environmental monitoring and a site audit will be carried out to ensure that the local environment has not been adversely affected by the closure of the facility and that no residual material remains on the site.
4. After the site audit and monitoring has been completed, the site may be used for other purposes, in line with proper planning and development of the site.

Aftercare Management

K.1.2 It is not envisaged that the activities at the Rehab Glassco facility will have an adverse impact on the site, which will result in detailed aftercare management of the site being required.

K.1.3 Post-closure environmental monitoring at the site will be agreed with the Environmental Protection Agency, if necessary, after appropriate closure procedures have been put in place.

Attachment L:

Statutory Requirements

Attachment L: Statutory Requirements

L.1 Statutory Requirements

Information Required under the Waste Management Acts, 1996 to 2011

L.1.1 Section 40(4) of the Waste Management Acts 1996 to 2011 states that the Agency shall not grant a waste licence unless it is satisfied that the following points have been complied with:

(a) any emissions from the recovery or disposal activity in question ("the activity concerned") will not result in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any other enactment

L.1.2 The facility will be managed and operated to minimise environmental impact. Environmental monitoring is proposed for air/dust, noise and surface water to ensure that relevant emission limit values are not exceeded.

(b) the activity concerned, carried on in accordance with such conditions as may be attached to the licence, will not cause environmental pollution,

L.1.3 The facility will not cause environmental pollution. Waste activities are low environmental risk, i.e. the acceptance and processing of glass and can materials only. Routine monitoring will verify that no pollution is being caused; see Attachment **F**.

(bb) if the activity concerned involves the landfill of waste, the activity, carried on in accordance with such conditions as may be attached to the licence, will comply with Council Directive 1999/31/EC on the landfill of waste

L.1.4 Not applicable.

(c) the best available techniques will be used to prevent or eliminate or, where that is not practicable, to limit, abate or reduce an emission from the activity concerned,

L.1.5 The facility is a state-of-the-art processing facility for the management of glass/cans. The facility has been designed to prevent/limit emissions from the activity.

(cc) the activity concerned is consistent with the objectives of the relevant waste management plan and will not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plan.

L.1.6 The Waste Management Plan for County Kildare 2005 - 2010 identifies waste management solutions which shift the emphasis from disposal to prevention, minimisation, recycling, recovery and other forms of waste treatment.

L.1.7 The recommended strategy to be implemented by the Plan is an integrated scenario with the following components:

- home composting

- three-bin collection system – the three bins are for dry recyclables (paper/cardboard, metal and plastic), organic/green wastes, and for residual wastes (anything that cannot be placed into the dry recyclables or organic bins)
- network of bring banks and civic amenity sites
- transfer station(s)
- biological treatment facility(s) for the treatment of organic waste (food and garden) to form compost which can be re-used beneficially
- dry material recovery facility(s) for the recycling/recovery of recyclable material in a dry material recovery facility - sorting and picking lines separate the waste into paper, cardboard, metals and plastic fractions
- mechanical-biological treatment facility(s) for the treatment of the residual bin, which is a mixture of organic waste and recyclable materials - recyclables can be recovered/recycled from sorting and picking lines, and the remaining waste is then composted
- residual landfills(s) for material that cannot be recycled, and for material which is rejected from a biological treatment facility, dry material recovery facility or mechanical-biological treatment facility

L.1.8 The Plan states that glass should not be mixed with dry recyclables [as part of household waste management system], rather it should handled separately for safety reasons.

L.1.9 The Plan reports that: *glass is collected throughout the County from bottle banks located at shopping centres, filling stations and other bring bank sites. However, under glass management programmes, some commercial outlets such as pubs, restaurants, etc., have their glass collected. The main operator of glass recycling in Kildare is the Rehab Recycling Partnership*.

L.1.10 The Rehab Glassco activity is deemed to be consistent with the objectives of Kildare Waste Management Plan.

(d) if the applicant is not a local authority, the corporation of a borough that is not a county borough, or the council of an urban district, subject to subsection (8), he or she is a fit and proper person to hold a waste licence,

L.1.11 Rehab Glassco (and previously Glassco Recycling) has been the holder of a Waste Facility Permit for the facility since 2008 and maintains an excellent track-record with the Local Authority.

L.1.12 The Applicant has not been convicted of any offences pertaining to the Waste Management, EPA, Air or Water Pollution Acts.

L.1.13 The Applicant holds the requisite technical knowledge and qualifications to carry on the proposed activity in an appropriate manner.

L.1.14 The Applicant is in a position to meet financial commitments/liabilities which may be associated with the activity.

(e) the applicant has complied with any requirements under section 53.

L.1.15 Financial commitments or liabilities will be addressed by the Applicant, in compliance with Agency requirements.

(f) energy will be used efficiently in the carrying on of the activity concerned

L.1.16 Rehab Glassco is committed to energy-efficient plant and buildings; energy use will be monitored and reported to the Agency as required.

(g) any noise from the activity concerned will comply with, or will not result in the contravention of, any regulations under section 106 of the Act of 1992

L.1.17 Potential noise-generating activities (Main Process operations) will continue to be conducted inside the facility only. Regular noise monitoring will continue to be conducted to ensure that noise emission limits are complied with, as detailed in Attachment **F.6**.

(h) necessary measures will be taken to prevent accidents in the carrying on of the activity concerned and, where an accident occurs, to limit its consequences for the environment

L.1.18 Appropriate accident and environmental accident prevention procedures are in place, see Attachment **J**.

(i) necessary measures will be taken upon the permanent cessation of the activity concerned (including such a cessation resulting from the abandonment of the activity) to avoid any risk of environmental pollution and return the site of the activity to a satisfactory state

L.1.19 Appropriate closure and aftercare plans are detailed in Attachment **K**.

(j) the intended method of treatment is acceptable from the point of view of environmental protection, in particular when the method is not in accordance with section 32(1)

L.1.20 The recycling and recovery of glass/cans at the Rehab Glassco facility is compatible with the principles of environmental protection. Materials will be held, transported, recovered or disposed of (in the case of residual waste) only in a manner that will not cause environmental pollution.

L.1.21 Waste materials will be transported by Waste Collection Permit holders.

L.2 Fit and Proper Person

L.2.1 Rehab Glassco (and previously Glassco Recycling) has been the holder of a Waste Facility Permit for the facility since 2008 and maintains an excellent track-record with the Local Authority.

L.2.2 The company has no offences under the Waste Management Acts 1996 to 2010, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1997 and 1990 or the Air Pollution Act 1987.

L.2.3 The Applicant holds the requisite technical knowledge and qualifications to carry on the proposed activity in an appropriate manner (please refer to Attachment **C.1**).

L.2.4 The Applicant will meet any and all financial commitments or liabilities which may arise.

L.2.5 Rehab Glassco is deemed to be a 'fit and proper' person to hold a waste licence.

L.3 Application of the Waste Hierarchy

L.3.1 Section 21(A) of the Waste Management Acts 1996 to 2011 (including amendments by the European Communities (Waste Directive) Regulations, 2011), requires measures to be taken to encourage the options that deliver the best overall environmental outcome, and may require specific waste streams departing from the hierarchy where this is justified by life-cycle thinking on the overall impacts of the generation and management of such waste.

L.3.2 The priority order waste hierarchy is set down as follows:

(a) prevention
(b) preparing for re-use
(c) recycling
(d) other recovery (including energy recovery); and
(e) disposal

L.3.3 This Waste Licence Application does not seek to deviate from the priority order waste hierarchy. The Rehab Glassco facility implements the waste hierarchy priority as detailed below.

L.3.4 Waste prevention is largely beyond the scope of influence of the Applicant; however Rehab Glassco has an excellent understanding of the impact of measures to reduce the quantity of waste, e.g. re-design of glass bottles/drinks cans/food containers to reduce the overall manufacturing weight and thickness of the containers.

L.3.5 Glass/cans are not routinely re-used in the food/drinks sector.

L.3.6 The Rehab Glassco facility focuses on the recycling of glass and cans, i.e. a *recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes*.

L.3.7 Rehab Glassco operations aim to minimise the amount of residual waste associated with its operations; residual waste is currently approximately <1% (by weight) of the input material.

L.4 Principles of Self-sufficiency and Proximity

L.4.1 Section 37A of the Waste Management Acts 1996 to 2011 (including amendments by the European Communities (Waste Directive) Regulations, 2011), requires an integrated and adequate network of waste disposal and recovery installations, taking into account best available techniques. The network shall be designed to enable the Community and the State to become self-sufficient in waste disposal/recovery and enable waste to be disposed/recovered in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health.

L.4.2 The Rehab Glassco facility plays a critical role in the recycling and recovery of glass and cans in the context of the Irish waste management sector. The operation of this facility makes a substantive contribution towards meeting Ireland's recycling and recovery targets for glass/cans: it accounts for approximately 80% of the country's glass recycling. The processing approaches applied at the facility are state-of-the-art, and attain very high levels of recovery efficiencies. The facility produces a market-ready raw material (cullet) for use in the glass manufacturing industry.

L.4.3 The facility is strategically located with reference to key waste generation points in the country, with excellent motorway access to all parts of Ireland.

L.4.4 The facility is designed and operated to ensure a high level of protection for the environment and public health.

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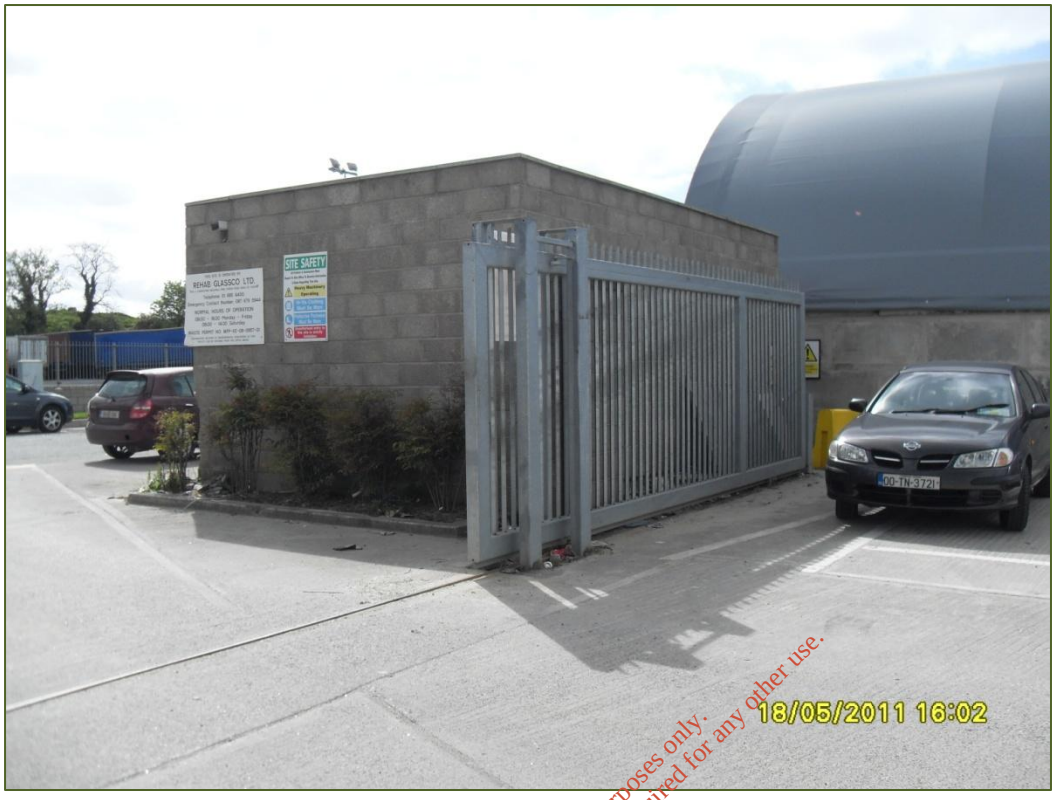

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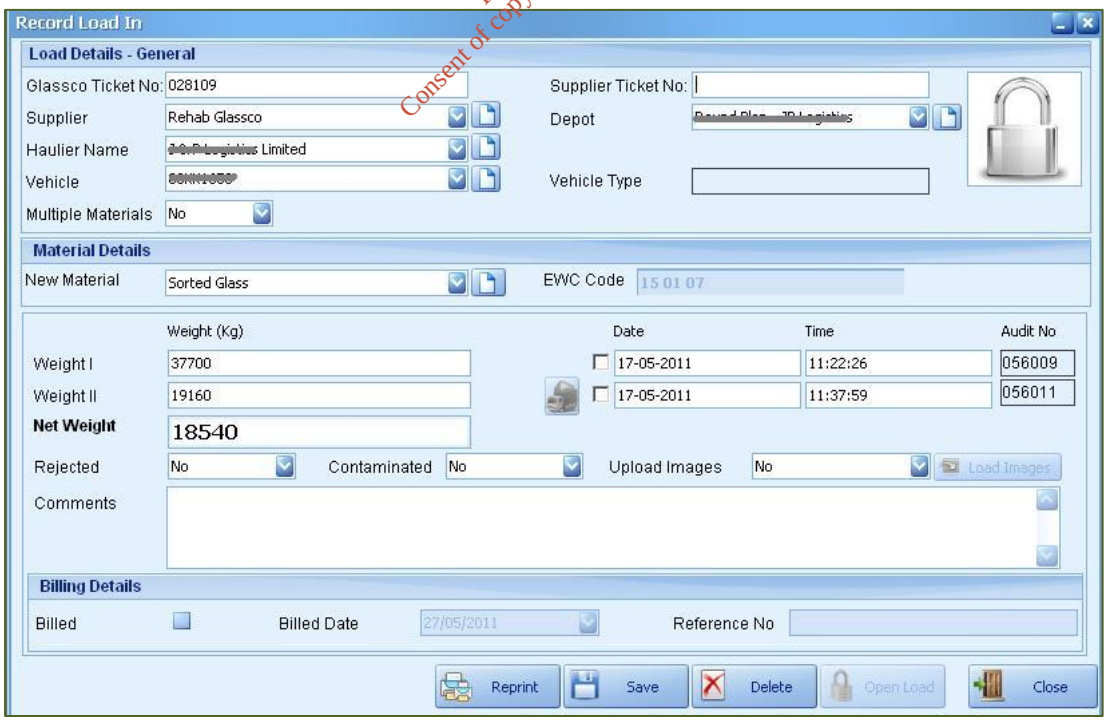

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