FEHILY TIMONEY & COMPANY

CONSULTANTS IN ENGINEERING & ENVIRONMENTAL SCIENCES

US: LW15/046/02/Lett/DFM

EPA Headquarters
PO Box 3000
Johnstown Castle Estate
County Wexford
Y35 W821

14 March 2017

RE: Submission of an Industrial Emissions Licence Application to the EPA in respect of proposed development by Thorntons Recycling at Millennium Business Park, Cappagh Road, Dublin 11, in townlands of Grange and Cappoge.

Dear Sir/Madam,

Fehily Timoney and Company was retained by Padraig Thornton Ltd. t/a Thorntons Recycling to prepare an industrial emissions (IE) licence application in respect of the above referenced development. Fehily Timoney and Company has compiled this application on behalf of Thorntons Recycling. I declare that the content of the electronic files on the accompanying CD-ROM is a true copy of the original application form, attachments and EIS.

Please find enclosed with this letter the following:

- 1 signed original and 1 copy, in hard copy of:
  - IE Licence Application Form
  - Attachments in support of the Application
  - 3 Volumes of the EIS

- 2 copies of all files in electronic searchable PDF format on CD-Rom (OCR'd) in the following format:
  - IE Licence Application
    - Application Form & Cover Letter
  - Attachments in support of the Application
    - Application Form Attachments Table of Contents
    - Application Form Attachment A
    - Application Form Attachment B Part 1 of 2
    - Application Form Attachment B Part 2 of 2
    - Application Form Attachment C
    - Application Form Attachment D
    - Application Form Attachment E, F, G, H, I
    - Application Form Attachment J & K

Cont'd....

- 3 Volumes of the EIS
  - Volume 1 Non-Technical Summary Files
    - EIS_Volume 1_Non Technical Summary
  - Volume 2 Main Report Files
    - EIS_Volume 2_ Chapters 1-5
    - EIS_Volume 2_Chapters 6, 7 & 8
    - EIS_Volume 2_Chapter 9
    - EIS_Volume 2_Chapter 10
    - EIS_Volume 2_Chapter 11
    - EIS_Volume 2_Chapter 12
    - EIS_Volume 2_Chapter 13_Part 1 of 3
    - EIS_Volume 2_Chapter 13_Part 2 of 3
    - EIS_Volume 2_Chapter 13_Part 3 of 3
    - EIS_Volume 2_Chapters 14,15 & 16
  - Volume 3 Appendices Files
    - EIS_Volume 3_Appendices 1-10
    - EIS_Volume 3_Appendix 11
    - EIS_Volume 3_Appendices 12-16
    - EIS_Volume 3_Appendix 17_Part 1 of 2
    - EIS_Volume 3_Appendix 17_Part 2 of 2
    - EIS_Volume 3_Appendices 18-25
- Attachments B.2, E.6 and F.3. on CDs entitled Thorntons Recycling_Millennium Business Park Application_Electronic Files'

Please be advised that Thorntons Recycling submitted payment for this application on 13 March 2017. Evidence of this payment is included with this cover letter.

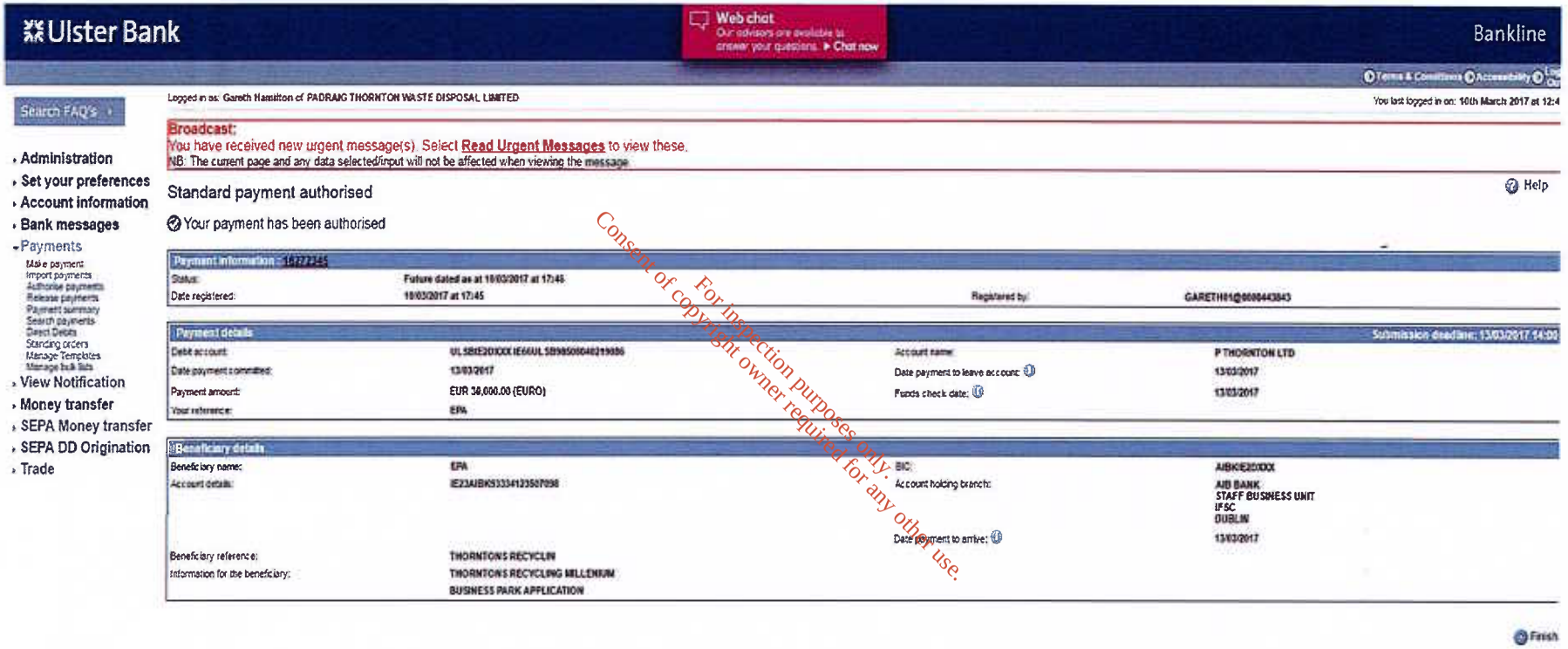
If you have any queries, please contact me.

Yours sincerely,

Derek Milton, Principal Scientist
for and on behalf of **Fehily Timoney & Company**

Encl.

Evidence of Electronic Funds Transfer for Application Fee_Thorntons Recycling



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Logged in as: Gareth Hamilton of PADRAIG THORNTON WASTE DISPOSAL LIMITED

You last logged in on: 10th March 2017 at 12:4

Broadcast:
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NB: The current page and any data selected/input will not be affected when viewing the message

Standard payment authorised

Help

Your payment has been authorised

Payment information : 16272345

Status:	Future dated as at 10/03/2017 at 17:45		
Date registered:	10/03/2017 at 17:45	Registered by:	GARETH91@[redacted]3843

Payment details — Submission deadline: 13/03/2017 14:00

Debit account:	UL SBIE20XXX IE66UL SB98500[redacted]9886	Account name:	P THORNTON LTD
Date payment committed:	13/03/2017	Date payment to leave account:	13/03/2017
Payment amount:	EUR 38,000.00 (EURO)	Funds check date:	13/03/2017
Your reference:	EPA		

Beneficiary details

Beneficiary name:	EPA	BIC:	AIBKIE2DXXX
Account details:	IE23AIBK93334123507098	Account holding branch:	AIB BANK STAFF BUSINESS UNIT IFSC DUBLIN
		Date payment to arrive:	13/03/2017
Beneficiary reference:	THORNTONS RECYCLIN		
Information for the beneficiary:	THORNTONS RECYCLING MILLENIUM BUSINESS PARK APPLICATION		

Finish

THORNTONS RECYCLING

INDUSTRIAL EMISSIONS LICENCE APPLICATION FORM FOR PROPOSED DEVELOPMENT AT MILLENNIUM BUSINESS PARK

MARCH 2017

ORIGINAL

THORNTONS RECYCLING

INDUSTRIAL EMISSIONS LICENCE APPLICATION FORM FOR PROPOSED DEVELOPMENT AT MILLENNIUM BUSINESS PARK

User is Responsible for Checking the Revision Status of this Document

Rev. Nr.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date:
0	Issue to Client	SG/DFM	DFM	DFM	10.03.2017

Client: Thorntons Recycling

Keywords: Millennium Park, environmental impact statement

Abstract: This document contains the EPA industrial emissions licence application form for the proposed development at Millennium Business Park, Cappagh Road, Dublin 11. The application has been prepared by Fehily Timoney & Company on behalf of Thorntons Recycling.

Industrial Emissions Activities Licence

Application Form

EPA Reg. Nº:
(Office use only)

*ELECTRONIC COPIES OF THE APPLICATION **MUST** BE SUBMITTED IN ACCORDANCE WITH THE "INSTRUCTIONS FOR LICENCE APPLICANTS" DOCUMENT AT THE LINK BELOW.*

FAILURE TO DO SO MAY RESULT IN A DELAY IN PROCESSING YOUR APPLICATION.

http://www.epa.ie/pubs/forms/lic/industrial%20emissions/instructionsforapplicantsreapplicationform.html

Environmental Protection Agency

P.O. Box 3000, Johnstown Castle Estate, Co. Wexford

Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699

Web: www.epa.ie Email: Industrial_Emissions_Licensing_Queries@epa.ie

Tracking Amendments to Application Form

Version No.	Date	Amendment since previous version	Reason
V.1.0	June 2013	N/A	Introduction of IE (Licensing) Regulations 2013
V.2.0	March 2014	Amendments to Section A, B and I.	Further clarification of IE (Licensing) Regulations 2013
V.3.0	January 2015	Amendments to Section G.1 Amendments to Section I.8	REACH Environmental Considerations, Main Alternatives and BAT
V.4.0	June 2015	Amendments to Section A Amendment to Section B.1 New Section B.3B Amendments to Section B.6 Amendment of Section B.10 New Section D.2.2 Amendments to Section L	To require summary table of impacts in Non-Technical summary Change from "Owner/Operator" to "Applicant" In relation to Fees Additional requirements in relation to planning history and the submission of EISs. Addition of Yes/No tick box Additional information required in relation to waste storage and closure costs. To reflect BAT & IED requirements

CONTENTS

ABOUT THIS APPLICATION FORM

This form is for the purpose of making an application for an Industrial Emissions Activity Licence under the Environmental Protection Agency Act, 1992, as amended. There is a separate application form for applicants who wish to apply for Classes 6.1 or 6.2 Intensive Agriculture.

The Application Form **must** be completed in accordance with the instructions included in this form and available on the EPA website. A valid application for an Industrial Emissions Activity (IEA) licence must contain the information prescribed in the Environmental Protection Agency (Industrial Emissions)(Licensing) Regulations, 2013. Regulation 9 of the Regulations sets out the statutory requirements for information to accompany a licence application. The application form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in Regulation 9. In order to ensure a legally valid application in respect of Regulation 9 requirements, please complete the Regulation 9 Checklist provided in Annex 2.

This Application Form does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Environmental Protection Agency Act, 1992 as amended, and the Environmental Protection Agency (Industrial Emissions)(Licensing) Regulations 2013. While every effort has been made to ensure the accuracy of the material contained in the Application Form, the EPA assumes no responsibility and gives no guarantees, undertakings and warranties concerning the accuracy, completeness or up-to-date nature of the information provided herein and does not accept any liability whatsoever arising from any errors or omissions.

Should there be any contradiction between the information requirements set out in the Application Form and any clarifying explanation on the EPA website then the requirements in this Application Form shall take precedence. The requirements of the 2013 Regulations, referenced above, shall take precedence over any considerations mentioned in this Application Form or on the website.

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.

SECTION A: NON-TECHNICAL SUMMARY

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the carrying on of the activity/activities and describe mitigation measures proposed or existing to address these impacts. This description should also indicate the normal operating hours and days per week of the activity.

The following information must be included in the non-technical summary:

- The relevant class or classes of activity in the First Schedule of the EPA Act 1992 as amended,
- Indication of whether EIS and planning permission documents are included,
- Indicate relevant BAT guidance documents or BAT Conclusions decisions,
- The title of the relevant BREF document
- Information on how the emission levels have been determined,
- Indication if EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2006 apply,
- If a derogation under Section 86A (6) is being sought and the specific reasons for such derogation,
- A description of:

– the installation (plant, methods, processes, abatement, recovery and treatment systems and operating procedures for the activity), with emphasis on the main measures to avoid, reduce and, if possible offset the major adverse effects on the environment

– the raw and auxiliary materials, substances, preparations, fuels and energy which will be produced by or utilized in the activity,

– the sources of emissions from the installation,

– the environmental conditions of the site of the installation (e.g. soil and groundwater, air, noise, surface water) including reference to a Baseline Report where applicable,

– the nature and quantities of existing and proposed emissions from the installation into each medium as well as a summary of the assessment of the effects of the emissions on the environment as a whole,

– the proposed technology and other techniques to prevent or eliminate, or where this is not practicable, limit, reduce or abate emissions from the installation,

– summary of the quantity and nature of wastes which may be produced or accepted at the installation,

– measures to ensure that waste production is avoided in accordance with the waste hierarchy in Council Directive 98/2008/EC on waste and section 21A of the Waste Management Act 1996, as amended; where waste is generated, it is prepared for re-use, recycled or recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment (applicants should provide this information in the context of the Waste Management Act 1996, as amended);

– all the appropriate preventive measures are taken against pollution, in particular through application of the Best Available Techniques (BAT) or BAT Conclusions Decision;

- the necessary measures are to be taken under abnormal operating conditions, including start up, shutdown, leaks, malfunctions, breakdowns and momentary stoppages;
- the necessary measures to be taken on and following permanent cessation of activities to avoid any risk of environmental pollution and return the site of the activity to a satisfactory state or the state established in the baseline report if required;
- measures planned to monitor emissions into the environment,
- measures to comply with an environmental quality standard,
- measures to comply with Council Directive 80/68/EEC and 2006/118/EC in relation to the protection of groundwater,
- measures to be taken for minimizing pollution over long distances or outside the territory of Ireland,
- the main alternatives to the proposed technology, techniques and measures studied by the applicant.

Where an EIS is submitted as part of the licence application, summarise the likely significant effects of the activity in the following format:

The table overleaf includes a description of likely potential impacts in the absence of mitigation measures along with the proposed mitigation measures.

The Non-Technical Summary of the EIS is included as Attachment A1.

Environmental Factor	Likely effects identified	Brief description of effect	Mitigation measures proposed to control effect
Human Beings	Population, Residential Settlements and Community Facilities	Disturbance in terms of traffic, noise and air emissions.	Traffic: The site location was selected on the basis that it is well served by an existing road network constructed to a high standard. The design of the new entrance to the site from the Cappagh Road will mitigate against potential impacts. The identification of dedicated haul routes and the implementation of a Traffic Management Plan (TMP) also represent mitigation measures to control traffic impacts. During the operational phase, further mitigation measures will be implemented. Examples include the use of night time traffic movements, the provision of traffic management site inductions to all staff working onsite and the use of clear signage. Noise: All noise control measures outlined in the Construction Environmental Management Plan (CEMP) will be implemented. Examples include the restriction of construction operations during unsociable hours, the appointment of a site representative for noise matters, the completion of noise monitoring at noise sensitive receptors during critical periods and the use of moveable acoustic fencing, if necessary. Mitigation measures will also be implemented during the operational phase. Examples include the adequate maintenance of plant and equipment, ensuring that noisy plant and equipment are not used for long or at inappropriate times, carrying out regular noise monitoring, ensuring that building doors are kept closed and investigating and recording all noise complaints. Air: A Dust Management Plan (DMP) will be developed and implemented as part of the Construction Environmental Management Plan (CEMP). Further mitigation measures will also be implemented during both the construction and operational phases. Examples include the recording of and response to dust complaints received, the completion of weekly dust inspections, the implementation of a maximum speed limit of 15 km/h on facility roads and the availability of an adequate water supply for effective dust suppression. Potential odour emissions during the operational phase will be mitigated against primarily through the use of an activated carbon abatement system. This system will be located in an enclosed area within the waste reception and processing building under negative aeration. An odour modelling assessment carried out has indicated that worst case off site odour levels are modelled at between 0.88 and 1.1 OUE/m^3, which are well within the relevant guidance values of 1.5 OUE/m^3.Odour emissions will also be mitigated against by minimising the handling of potentially malodorous waste, using covered/enclosed vehicles for waste transportation and carrying out regular odour monitoring.

	Land Use	The land use within the site boundary will be directly and significantly impacted as a result of the proposed development through the clearance of existing scrub and vegetation. The site will change from an area of undeveloped and unmanaged land that comprises a grassed surfaced portion and a tarmacadam hardstanding area with 3 no. disused building thereon to an area of developed and managed land with one large tarmacadam hardstanding area and a waste management facility thereon.	No mitigation measures are proposed in relation to land use beyond the development boundary, given the lack of direct and indirect impacts on these lands.
	Local Employment and Economic Activity	During the construction phase the impact is anticipated to be directly positive as employment for c. 40-50 people will be created. During the operational phase, c. 10 people will be employed. The operation of the site will also supply the commercial and industrial sector with an outlet for the management of their waste, thus indirectly and positively making the area attractive to industry and contributing to the meeting of regional waste management needs.	Positive, none required
	Recreation, Amenity and Tourism	The proposed development will not impact on recreational options, given that none take place on the site and that the site is a functional space for a dedicated waste management activity. No direct impacts on tourism in the area are envisaged.	No impacts; none required
Flora and fauna	Habitats and Flora	Vegetation clearance during the construction phase will result in habitat damage and loss. The most abundant habitat types within the development area which will be affected are dry meadows and grassy verge habitats.	Appointment of a project ecologist to oversee all vegetation clearance works so that potential significant adverse ecological impacts may be identified and construction work subsequently halted. An Invasive Species Management Plan will be put in place to ensure the appropriate management of the Japanese knotweed (*Fallopia japonica*) that has been recorded within the site boundary.
	Terrestrial Mammals	Imperceptible impacts, as the habitats within the site are of low ecological value	Construction operations will take place during daylight hours to minimise disturbances to faunal species at night. Toolbox talks shall be given to all construction staff entering the site to ensure that they are made aware of the potential impact to badgers and other terrestrial mammals.
	Bats	Disturbance during the construction phase from the felling of the treeline within the site, and from increased noise and lighting on the site	Construction operations will take place during daylight hours to minimise disturbances to bats at night. The conditions of the bat derogation licence for the site will be adhered to in full.

	Birds	Disturbance from vegetation clearance and associated loss of habitat. No significant impacts envisaged as habitats within the site are of low value for the bird species using the area.	Removal of vegetation and scrub will be undertaken outside of the bird breeding so as to protect nesting birds. The demolition of the buildings containing breeding birds will also not occur during the breeding season. Construction operations will take place during the hours of daylight to minimise disturbances to roosting birds, or active nocturnal bird species.
	Aquatic species and habitats	Potential for indirect hydrological impacts	Various measures to be taken. Examples include the immediate removal of vegetation from the site following clearance, the storage of any diesel or fuel on site in bunded areas and the use of a lock system on all taps, nozzles or valves utilised.
Soil	Soil geology	Potential for increased erosion and sediment release and soil compaction	Use of a suitably qualified and experienced geotechnical engineer or engineering geologist. Construction and backfilling of excavations as soon as possible. Quick placement of imported soil. Covering of temporary stockpiles overnight to prevent erosion and sedimentation. Adequate support and protection of temporary cuts/excavations.
Water	Surface water pollution	Potential for increases in run off, releases of silt and suspended solids and contamination of nearby surface waters	Various measures to be taken. Examples during the construction phase include the use of a dry wheel wash at the site entrance, the surrounding of excavated material with silt fencing, the containment of wet concrete operations, the refuelling of plant within designated refuelling areas and the training of all personnel working on site in in pollution incident control response. The drainage system on site will represent the primary mitigation measure during the operational phase. An interceptor and silt trap will be incorporated into this system to treat surface water runoff prior to discharge to the Millennium Business Park drainage system. The drainage system will be inspected and maintained on a regular basis to ensure that it is operating effectively. A spillage containment plan will also be put in place with spill kits being made available and personnel being trained in spillage response procedures
	Groundwater pollution	Potential for pollution of groundwater aquifer beneath site and groundwater wells nearby site	All materials brought on site will be stored in designated impermeable concrete hardstanding areas breaking any potential pathway. Refuelling of plant and machinery off site. Storage of diesel in a bunded area on hardstanding.
Air	Dust	Emissions of dust during the construction and operational phases	Mitigation measures in relation to dust referred to above (human beings)
	Odour	Emissions of odour during the operational phase	Mitigation measures in relation to odour referred to above (human beings)
Climate	Air emissions	Exhaust gases from vehicles and plant during the construction and operational phases are expected to have a negligible impact on local air quality	No mitigation measures required

Landscape	Visual	Visual impacts of low significance only	No specific requirement for mitigation given the low significance of impacts. However, 'mitigation by design' through ensuring that the coloration of the waste reception and processing building cladding is appropriate and through the implementation of landscaping measures along the southern boundary of the development site.
Material Assets	Infrastructure	Temporary and slight direct impacts on electrical utilities during the construction phase – relocation of the existing 38 kV power line that transverses the site. No direct or indirect impacts on property values, ownership of the site, non-renewable resources or potential future renewable resources nearby the site.	Mitigation measures, in terms of prior notice to electricity users impacted by the powerline relocation, will be undertaken in ESB Networks.
Material Assets	Archaeology, architecture and cultural heritage	No direct impacts on recorded archaeological, architectural or cultural heritage resources nearby site. Imperceptible visual and noise impacts on these resources.	Monitoring of excavation works by site staff – cease of works and retaining of archaeologist should archaeological remains be uncovered. No mitigation measures available to offset the imperceptible visual and noise impact on the archaeological, architectural and cultural heritage resource.

Supporting information should form **Attachment № A.1**

SECTION B: GENERAL

B.1. Applicant

Name*:	Padraig Thornton Waste Disposal Ltd. t/a Thorntons Recycling
Address:	Unit S3B
	Henry Road
	Parkwest Business Park
	Dublin 12
Tel:	+ 353 1 623 5133
Fax:	+ 353 1 623 5131
e-mail:	info@thorntons-recycling.ie

* This should be the name of the applicant which is current on the date this 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:	c/o Mr. Derek Milton
Address:	Fehily Timoney & Company
	J5 Plaza
	North Park Business Park
	North Road, Dublin 11
Tel:	+ 353 1 658 3500
Fax:	+ 353 1 658 3501
e-mail:	derek.milton@ftco.ie

CRO No. and address of registered or principal office of Body Corporate

CRO No.	72366
Address:	Unit S3B
	Henry Road
	Parkwest Business Park
	Dublin 12
Tel:	+ 353 1 623 5133
Fax:	+ 353 1 623 5131
e-mail:	info@thorntons-recycling.ie

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 under the Companies Act.
b) the Company's Registration Number from the Companies Registration Office.
c) Particulars of Registered Office of the Company.

Name and address of the proprietor(s) of the land on which the activity is situated (if different from applicant named above):

Proprietor's Name:	
Address:	
Tel:	
Fax:	
e-mail:	

Name and address of the owner(s) of the building and ancillary plant in which the activity is situated (if different from applicant named above):

Name:	
Address:	
Tel:	
Fax:	
e-mail:	

Primary Contact details for <u>enforcement purposes</u> where licence is granted. PLEASE NOTE THIS CONTACT <u>CANNOT</u> BE A CONSULTANT. ALSO IT MUST <u>NOT</u> BE A PERSON WHO IS ALREADY A REGISTERED EDEN CONTACT FOR ANY OTHER LICENCE ISSUED BY THE AGENCY.
***mandatory fields**

***Name:**	Mr. David Duff
Position in organisation:	Environmental, Health and Safety Manager
Tel:	+ 353 1 623 5133
***e-mail:**	dduff@thorntons-recycling.ie

B.2. Location of Activity

Name:	Millennium Business Park Facility
Address*:	Millennium Business Park
	Cappagh Road (in townlands of Grange and Cappoge)
	Dublin 11
Tel:	N/A
Fax:	N/A
Contact Name:	Mr. David Duff
Position:	Environmental, Health and Safety Manager
e-mail:	dduff@thorntons-recycling.ie

* Include any townland.

National Grid Reference (12 digit 6E,6N)	710302 E 740782 N

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.

Geo-referenced digital drawing files (e.g. AutoCAD files) in Irish Grid projection of the site boundary and overall site plan, including labelled emission, monitoring and sampling points, are also required. This data should be provided to the Agency on a separate CD-Rom containing sections B.2, E.6 and F.3.

Name of geo-referenced digital drawing files	LW1504602_L-001 LW1504602_L-002 LW1504602_L-003 LW1504602_L-008
Name of CD-Rom with digital drawing files	Thorntons Recycling_Millennium Business Park Application_Electronic Files

B.3. Class of Activity

Identify the relevant activities in the First Schedule of the EPA Act 1992, as amended, to which the activity relates:

Class	Description	Identify Main IED Activity
11.1	The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required. (is an industrial emissions directive activity, in so far as the process development or operation specified in 11.1 is carried on in an installation connected or associated with another activity that is an industrial emission directive activity).	All waste related activities on site
11.4 (b)	Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day, involving one or more of the following activities (other than activities to which the Urban Waste Water Treatment Regulations 2001 (S.I. No. 254 of 2001) apply): (i) biological treatment **(ii) pre-treatment of waste for incineration or co-incineration** (iii) treatment of slags and ashes (iv) treatment in shredders of metals	The production of SRF from incoming residual MSW and/or the consignment of residual MSW to thermal treatment satisfies the bold category (ii). At an acceptance rate of 170,000 tonnes per annum, the daily threshold of 75 tonnes per day will be exceeded.

	waste, including waste electrical and electronic equipment and end-of-life vehicles and their components	

B.3A Industrial Emissions Directive

Specify which category/categories of industrial activity referred to in Annex I of the Industrial Emissions Directive (2010/75/EU) is/are to be carried out at the installation.

Category	Description	Identify Main IED Activity
5.3(b)	Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, and excluding activities covered by Directive 91/271/EEC: (i) biological treatment; **(ii) pre-treatment of waste for incineration or co-incineration;** (iii) treatment of slags and ashes; (iv) treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components. When the only waste treatment activity carried out is anaerobic digestion, the capacity threshold for this activity shall be 100 tonnes per day.	The production of SRF from incoming residual MSW and/or the consignment of residual MSW to thermal treatment satisfies the bold category (ii). At an acceptance rate of 170,000 tonnes per annum, the daily threshold of 75 tonnes per day will be exceeded.

State whether the installation falls under the scope of Chapters III, IV, V and/or VI of the Industrial Emissions Directive (2010/75/EU) and if yes specify the relevant sections and Annex.

IED Chapter(s) and relevant Annex(es)
Does not fall under scope of Chapters III, IV, V and/or VI of the Industrial Emissions Directive (2010/75/EU)

Supporting information should be included in **Attachment № B.3A**.

B.3B Application Fee

State each class of activity (per the First Schedule of the EPA Act) for which a fee is being submitted. Application fees are set out in the following regulations:

- EPA (Licensing Fees) Regulations 1994, for all First Schedule activities except classes 11.2 to 11.7; and
- EPA (Licensing Fees) Regulations 2013, for First Schedule activity classes 11.2 to 11.7.

First Schedule Activity	Fee (in €)
A mix of recovery and disposal of non hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the activities specified in subparagraphs 11.4(b)(i) to 11.4(b)(iv), where the annual intake is likely to exceed 100,000 tonnes	30,000
Total fee paid	30,000

B.4 Classes of Waste Activity

If a waste activity is proposed, i.e. if any First Schedule of the EPA Act 1992, as amended class 11 activity is specified in section B.3 above, identify below the relevant activities as listed in Annex I and Annex II of the Waste Framework Directive (2008/98/EC).

TABLE B.4 Classes of Waste Activity

Waste Framework Directive 2008/98/EC

Annex I Disposal Operations		Y/N
D 1	Deposit into or on to land (e.g. including landfill, etc.).	N
D 2	Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.).	N
D 3	Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.).	N
D 4	Surface impoundment (e.g. placement of liquid or sludgy discards into pits, ponds or lagoons, etc.).	N
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
D 6	Release into a water body except seas/oceans.	N
D 7	Release to seas/oceans including sea-bed insertion.	N
D 8	Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12.	N
D 9	Physico-chemical treatment not specified elsewhere in this Annex 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
D 10	Incineration on land.	N

Annex I Disposal Operations		Y/N
D 11	Incineration at sea.[1]	N
D 12	Permanent storage (e.g. emplacement of containers in a mine, etc).	N
D 13	Blending or mixing prior to submission to any of the operations numbered D 1 to D 12.[2]	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, pending collection, on the site where the waste is produced).[7]	Y

Annex II Recovery Operations		Y/N
R 1	Use principally as a fuel or other means to generate energy.[3]	N
R 2	Solvent reclamation/regeneration.	N
R 3	Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).[4]	Y
R 4	Recycling/reclamation of metals and metal compounds.	Y
R 5	Recycling/reclamation of other inorganic materials.[5]	Y

[1] This operation is prohibited by EU legislation and international conventions.

[2] If there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, inter alia, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12.

[3] 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 legislation before 1 January 2009,
- 0.65 for installations permitted after 31 December 2008,

using the following formula:

Energy efficiency = (Ep - (Ef + Ei)/ (0.97x(Ew+Ef)

In which:

'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 Ef(GJ/year),

'0.97' is a factor accounting for energy losses due to bottom ash and radiation.

This formula shall be applied in accordance with the reference document on Best Available Techniques for waste incineration.

[4] This includes gasification and pyrolisis using the components as chemicals.

Annex II Recovery Operations		Y/N
R 6	Regeneration of acids or bases.	N
R 7	Recovery of components used for pollution abatement.	N
R 8	Recovery of components from catalysts.	N
R 9	Oil re-refining or other reuses of oil.	N
R 10	Land treatment resulting in benefit to agriculture or ecological improvement.	N
R 11	Use of waste obtained from any of the operations numbered R 1 to R 10.	N
R 12	Exchange of waste for submission to any of the operations numbered R 1 to R 11.[6]	Y
R 13	Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage, pending collection, on the site where the waste is produced).[7]	Y

[5] This includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.

[6] If there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, inter alia, 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.

[7] Temporary storage means preliminary storage according to point (1) of Article 3 [of the Waste Framework Directive 2008/98/EC].

B.5. Employees / Capital Cost

Give-

(i) In the case of an established activity, the number of employees and other persons working or engaged in connection with the activity on the date after which a licence is required and during normal levels of operation, or

(ii) In any other case, the gross capital cost of the activity to which the application relates.

Number of Employees (existing facilities):	0
Gross Capital Cost (new proposals) €	€10 -15 million (estimated range for site development cost)

B.6. Relevant Planning Authority and / or Public Authority

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

Name:	Fingal County Council
Address:	County Hall
	Main Street
	Swords
	Co. Dublin
Tel:	+ 353 1 890 5000
Fax:	

Considering the entire site to which the activity relates, has planning permission ever been required for the site? (Tick No or Yes in the table)

No		See Section **B.6(a)** below **NOTE:** For **Agency initiated reviews**, you can disregard the instructions in B.6(a) and progress to Section B.7.
Yes	X	See **all** of Sections **B.6(b) to (f)** below. Please note that **all** structures comprising or for the purposes of the activity must be accounted for in the tables in sections below B.6(c) to B.6(f) below. **NOTE:** For **Agency initiated reviews**, you only need to complete the tables in Sections B.6(c), B.6(d) and B.6(e) below. You **DO NOT** need to submit an EIS or the letters on confirmation referred to below.

If this is a licence review application, was planning permission required for the changes proposed as part of this review application? (Tick No or Yes in the table) **Not applicable**

No		Provide confirmation in writing from the planning authority or An Bord Pleanála that this is the case.	
Yes		Planning Ref No:	

B.6 (a) Where planning has never been required

Where the activity which is the subject of this licence/review application has never required a grant of planning permission previously, **Attachment Nº B.6** must include a confirmation in writing from the planning authority or An Bord Pleanála, as the case may be, that the activity does not involve development or that the activity constitutes development but is exempted development. The letter of confirmation from the planning authority and/or An Bord Pleanála, as the case may be, must also confirm whether EIA has been carried out by the planning authority or An Bord Pleanála for any part of the site of the activity.

Not applicable

B.6 (b) Environmental Impact Statements

In the following table, indicate the option which applies to your application and provide the information requested accordingly.

Option	Applicable? (Yes/No)
For new licence applications OR review applications where the last licence (excluding reviews initiated by the EPA) was determined **before** 30th September 2012 • Where planning permission has been/is required for the site of the activity, **you must submit the most recent EIS associated with a planning application or planning permission for the site of the activity.** • Where planning is granted, the planning decision and planners report associated with the EIS should also be submitted.	Y
For review applications where the last licence (excluding reviews initiated by the EPA) was determined **after** 30th September 2012 • If this is an application for a licence review, and the last licence review (not including reviews initiated by the EPA) **was determined after 30th September 2012**, you are only required to submit the most recent EIS which has arisen through the planning process **since the last licence review**. The planning decision and planners report associated with the EIS should also be submitted.	N
Where an EIS has never been required at planning stage Where an EIS has never been required for any planning permission then you must provide confirmation in writing from the planning authority or An Bord Pleanála that an environmental impact assessment was not required by or under the Planning and Development Act 2000, as amended for **each** of the planning permissions associated with the site of the activity. This information should be included in **Attachment Nº B.6**.	N

B.6 (c) Planning under Consideration

Where there is currently a planning application under consideration with a Planning Authority or An Bord Pleanala for any aspect of the site to which this licence application relates:

1. Provide confirmation in writing from a planning authority or An Bord Pleanála, as the case may be, that an application for permission comprising or for the purposes of the activity to which the application for a licence relates is currently under consideration.
2. Complete the Planning under Consideration Table below, indicating whether an Environmental Impact Statement (EIS) is required by the Planning Authority/An Bord Pleanala as part of that application.
3. Where an EIS is not required by the Planning Authority/An Bord Pleanala for a planning application, you must provide confirmation in writing from the planning authority or An Bord Pleanála that an environmental impact assessment is not required by or under the Planning and Development Act 2000 in **each** case. This information should be included in **Attachment Nº B.6**.

Planning under Consideration Table:

Planning or Appeal Reference Number	Planning Authority (PA)/An Bord Pleanala (ABP)	Date of application	Brief description	Letter of confirmation from PA/ABP that application is under consideration?	EIS required with Planning Application? (Yes/No)	If "no", letter of confirmation from PA/ABP that EIA is not required?
PL06F.P0048	An Bord Pleanála	11/01/2017	The development of a Materials Processing and Transfer Facility of up to 170,000 tonnes per annum capacity at the site.	Yes (in attachment B.6)	Yes	N/A

Note: Please be advised that in accordance with Section 87(1D)(d) of the EPA Act 1992, as amended, a Proposed Determination **cannot** issue on a licence application while a planning application (for a development comprising or for the purposes of an activity to which the licence application relates and for which EIA is required) is under consideration with a planning authority or An Bord Pleanala.

B.6 (d) Planning Granted

Where planning permissions have been granted for the site of the activity:

1. List all of the permissions relating to the site in the Planning Granted Table below and indicate whether an EIS was required by the Planning Authority/An Bord Pleanala as part of that permission. Submit the planners report and final decision for each permission granted.
2. Where an EIS was not required by the Planning Authority/An Bord Pleanala for a planning permission, you must provide confirmation in writing from the planning authority or An Bord Pleanála that an environmental impact assessment was not required by or under the Planning and Development Act 2000 for **each** planning permission granted. This information should be included in **Attachment Nº B.6**.

Planning Granted Table:

Planning or Appeal Reference Number	Planning Authority/ An Bord Pleanala	Date of Planning Decision (Final)	Brief description	EIS required with Planning Application? (Yes/No)	If "no", Letter of confirmation from planning authority/An Bord Pleanala that EIA was not required?
230770	An Bord Pleanála	07/01/2009	The development of a material recycling facility (MRF) of up to 100,000 tonnes per annum capacity at the site.	Yes	N/A

Note: Please be advised that where planning permission has been granted or a planning application is under consideration, and in accordance with Section 87(1C) of the EPA Act 1992, as amended, the Agency shall ***refuse to consider*** the licence application if the applicant does not comply with the requirements of Section 87(1B) of the EPA Act.

B.6 (e) Exempted Developments and structures/modifications not regarded as "development". Not applicable

Where any structure or modification on site has been determined by the planning authority or An Bord Pleanála to be "exempted development" or is considered not to be development, provide confirmation in writing from the relevant authority. List all of the structures/modifications considered to be "exempted development" or to not involve development in the table below.

Exempted Development/No Development:

Planning Authority/ An Bord Pleanala	Date of letter from PA/ABP confirming their determination	Brief description of structure/modification	Tick if exempted development	Tick if considered not to be development

B.6 (f) Other Consents Granted

List all consents (**other than planning permissions**) issued by any relevant competent authority (other than the planning authority/An Bord Pleanala) for the development relating to this application which required EIA to be carried out as part of the consent process e.g. a foreshore licence. These EISs are **not** required to be submitted with the licence application at this point.

Consent Reference Number	Competent Authority	Date of Grant of Consent	Brief description	EIS required with Consent Application?
W0242-01	Environmental Protection Agency	24/11/2008	Granting of a waste licence from the EPA for the development of a material recycling facility (MRF) of up to 100,000 tonnes per annum capacity at the site.	Yes

Appropriate Assessment

Where applicable, provide a copy of any screening for Appropriate Assessment report and Natura Impact Statement (NIS) that was prepared for consideration by any planning/public authority as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) in relation to the activity. Where a determination that an Appropriate Assessment is required has been made by any planning/public authority in relation to the activity, a copy of that determination and any screening report and Natura Impact Statement (NIS), and any supplemental information furnished in relation to any such report or statement, which has been provided to the planning/public authority for the purposes of the Appropriate Assessment shall be included in **Attachment Nº B.6.**

Licences and permits

For existing activities, **Attachment Nº B.6** should also contain a table of references to all licences and permits past and present, including those in force at the time of submission of this application. This should include, but is not limited to, any permits/licenses or registration under GHG Emissions Trading Regulations and GMO Regulations.

Licence/Permit reference number	Brief Description	Date granted	Currently in force? (Yes/No)

Not applicable

B.7. Relevant Water Services Authority

In the case of a discharge of any trade effluent or other matter to a sewer of a Water Services Authority, give the name of the Water Services Authority in which the sewer is vested or by which it is controlled.

Name:	Irish Water
Address:	Colvill House
	24-26 Talbot Street
	Dublin 1
Tel:	1850 448 448
Fax:	

In the case of a discharge of any trade effluent or other matter to a sewer not vested by a Water Services Authority, the applicant must supply as **Attachment Nº B.7**;
(a) the name and address of the owner(s) of the sewer and the waste water treatment plant to which the sewer discharges (e.g. IDA, SFADCo or private undertaker) and who are responsible for the quality of the treated effluent discharging to waters and
(b) a copy of the effluent regulations and the agreement between the applicant and the aforementioned.

Details of owner(s) of a sewer and waste water treatment plant not vested in a Water Services Authority

Name:	**Not applicable**
Address:	

Tel:	
Fax:	

B.8. Relevant Regional Health Service Executive

The applicant should indicate the Regional Health Service Executive where the activity is or will be located.

Name:	HSE Dublin North-East
Address:	Unit 7
	Swords Business Campus
	Balheary Road
	Swords
	Co. Dublin
Tel:	+ 353 1 890 8728
Fax:	+ 353 1 813 1882

B.9 Site Notice, Newspaper Advertisement and Planning Authority Notice.

Attachment Nº B.9 should contain a copy of the text of the site notice, a map (no larger than A3) showing its location on site (in accordance with Article 6 of the Regulations) and a copy of the newspaper advertisement. A copy of the notice given to the Planning Authority should also be included.

B.10 Seveso II Regulations

State whether the activity is an establishment to which the EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations (S.I. No. 74 of 2006) apply.

☐ Yes ☒ No

If yes, outline how the process comes under these regulations.

Supporting information should be included in **Attachment Nº B.10**.

B.11 Mercury Regulation

State whether the activity is one to which the following apply:

- European Communities Mercury (Export Ban and Safe Storage) Regulations (S.I. No. 27 of 2012),

- Regulation (EC) No 1102/2008 of the European Parliament and of the Council of 22 October 2008 on the banning of exports or metallic mercury and certain mercury compounds and mixtures and the safe storage of metallic mercury.

☐ Yes ☒ No

If yes, outline in **Attachment Nº B.11** how the activity comes under these Regulations.

B.12 Regulations Controlling Fluorinated Greenhouse Gases and Ozone Depleting Substances

State whether the installation is one to which the following apply:

– Operator of equipment and systems containing ozone depleting substances, in accordance with Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer.

☐ Yes ☒ No

– Operator of equipment and systems containing fluorinated greenhouse gases, in accordance with Regulation (EC) No. 842/2006 on certain fluorinated greenhouse gases.

☐ Yes ☒ No

If yes, outline in **Attachment № B.12** how the activity comes under these regulations.

More information and guidance is available on the EPA website:

http://www.epa.ie/air/airenforcement/ozone/guidanceanddownloads/

B.13 Review of a licence

Not applicable

State the grounds on which an application for a review of a licence is being made and give the reference number to the relevant licence in the register.

Provide, where appropriate, a copy of the Office of Environmental Enforcement (OEE) correspondence that indicates that the reason for the review cannot be accommodated within the scope of the existing licence.

Include results of emission monitoring and other data, that enables a comparison of the operation of the installation with the best available techniques described in the applicable BAT conclusions and with the emission levels associated with the best available techniques in accordance with Section 86A(9) of the Act of 1992 as amended.

Where the OEE has agreed any variations or adjustments to the conditions or schedules of the existing licence, the licensee must provide details of these agreed variations and adjustments to the existing licence conditions. An updated, scaled drawing of the site layout (no larger than A3) providing visual information on such adjustments or variations where appropriate should be included.

In the case of once-off assessments/ reports required under conditions/ schedules of the existing licence the licensee must provide details of those assessments/ reports that have been completed and agreed with the OEE or as otherwise agreed.

Attachment Nº B.13 shall include the schedule of variations and/or adjustments together with the updated drawing.

Condition / Schedule No.	Existing Condition	OEE Agreement Reference	Description

Supporting information should be included in **Attachment Nº B.13**.

SECTION C: MANAGEMENT OF THE INSTALLATION

C.1 Site Management & Control

Details should be provided on the management structures for the activity. Organisational charts and all relevant environmental management policy statements, including provisions for on-going assessment of environmental performance, are required.

C.2 Environmental Management System (EMS)

Indicate whether an Environmental Management System has been developed for the installation. If yes, specify which standard and include a copy of the accreditation certificate.

C.3 Hours of Operation

Provide details of the hours of operation for the installation, including:
(a) Proposed hours of operation.
(b) Proposed hours of construction and development works and timeframes.
(c) For waste activities, the proposed hours of waste acceptance.
(d) Any other relevant hours of operation expected.

C.4 Fit and Proper Person

The EPA Act in Section 83(5)(xi) specifies that the Agency shall not grant a licence unless it is satisfied that the applicant or licensee or transferee as the case may be is a fit and proper person. Section 84(4) of the EPA Act 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 Environmental Protection Agency Act 1992, as amended, the Waste Management Act 1996, as amended, the Local Government (Water Pollution) Acts 1997 and 1990, the Air Pollution Act 1987 and the Air Pollution Act 1987 (Environmental Specifications for Petrol and Diesel Fuels) (Amendment) Regulations 2004.
- Provide details of the applicant's technical knowledge and/or qualifications, along with that of other relevant employees.
- 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.

This information should form **Attachment Nº C**.

SECTION D: INFRASTRUCTURE & OPERATION

D.1. Operational Information Requirements

Describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems, and operating procedures for the activity, to include a copy of such plans, drawings or maps, (site plans and location maps, process flow diagrams), and such other particulars, reports and supporting documentation as are necessary to describe all aspects of the activity. Maps and drawings must be no larger than A3 size.

A development and operational history of the site should be included here.

Attachment Nº D should contain a list of all unit operations (processes) to be carried out, including flow diagrams of each with any relevant additional information.

D.2 Additional requirements for waste Activities (not covered above or elsewhere) (All Class 11 of the First Schedule of the EPA Act 1992, as amended)

This section D.2 of the application form should be completed only by applicants applying for classes 11.1, 11.2, 11.3, 11.4, 11.5, 11.6 and 11.7 (i.e. waste activities) of the First Schedule to the EPA Act 1992, as amended.

D.2.1 Wastes to be accepted

State what wastes will be accepted at the installation for recovery or disposal. Complete table Table D.2(i) and include in **Attachment No. D.2** of the application. The following general guidelines may assist in containing the size of Table D.2(i) where there is a long list of EWC codes proposed.

- For any individual waste stream, described by EWC code or main waste description (e.g. municipal solid waste, mixed recyclables, C&D waste), comprising more than 5% of total intake, complete a single row in table D.2(i).
- For every hazardous waste stream, describe by EWC code, complete a single row in table D.2(i).
- Other waste streams, where the list of waste is long, may be aggregated, according to a waste category, with each relevant EWC code provided.

An EWC code should be provided for every waste proposed for acceptance at the installation.

State whether any wastes to be accepted are classified as animal by-products in accordance with Regulation 1069/2009 and identify the relevant wastes.

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 (tonnes)	170,000
Year	2020 (assumed 1st full year of operation)

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

D.2.2 Waste Storage and Closure Costs

State the maximum amount of waste that will be held or stored at the installation at any one time. This should include waste in:

- reception, inspection and quarantine areas,
- storage pending treatment,
- storage after treatment, and
- vessels, chambers or tanks during treatment or processing.

State the cost of disposing of waste (including treated waste) held, in storage or in process at the installation. Do not provide the recovery/recycling cost and do not assume that the waste will have a positive monetary value (it may have degraded in the period before removal from the closed installation).

Complete the following table (consistently using either tonnes or cubic metres as your unit of measurement for all entries): Refer to Attachment D.2.2.2

Location of waste	Tonnes	Cubic metres	Unit cost (per tonne or m^3) for - removal AND - disposal in case of sudden closure	Disposal route and/or technique	Notes, rationale, clarifications
Quarantine area	Dependent on material	594	€100	Thermal Treatment	Refer to outline ELRA submitted – Attachment K
SRF Input Storage	727	2909	€100	Thermal Treatment	Refer to outline ELRA submitted – Attachment K
SRF Output Storage	1727	8636	€100	Cement Kiln	Refer to outline ELRA submitted – Attachment K
SRF Process Rejects Storage	181	364	€100	Thermal Treatment	Refer to outline ELRA submitted – Attachment K
MSW for Transfer Storage	145	364	€100	Thermal Treatment	Refer to outline ELRA submitted – Attachment K
Biowaste Storage	218	397	€100	Composting	Refer to outline ELRA submitted – Attachment K

Location of waste	Tonnes	Cubic metres	Unit cost (per tonne or m³) for - removal AND - disposal in case of sudden closure	Disposal route and/or technique	Notes, rationale, clarifications
Waste Wood Storage	218	1091	€100	Composting	Refer to outline ELRA submitted – Attachment K
Bale Storage	2100 (3500 bales)	n/a	€100	Thermal Treatment	Refer to outline ELRA submitted – Attachment K
Total					

* add rows to the table as necessary

D.2.3 Waste Acceptance Procedures

Provide a copy of the waste acceptance procedures employed or to be employed. Describe procedures for checking waste loads as they arrive at the installation. Describe procedures to be implemented in the event of a load of waste arriving at the installation that does not conform to waste acceptance procedures. The location of a quarantine area for handling suspect or non-compliant loads should be described and illustrated on a suitable site drawing.

For landfills and relevant incineration activities, describe how the requirements of *Municipal Solid Waste – Pre-treatment and Residuals Management: An EPA Technical Guidance Document* (EPA, 2009) will be implemented.

For landfills, the applicant should ensure that the requirements of Council Decision 2003/33/EC are addressed in waste acceptance procedures.

D.2.4 Waste and material outputs from waste activities

Describe the waste and material outputs from the installation resulting from the treatment of waste. If no treatment is carried out on the waste, the waste outputs will be the same as the inputs.

If waste is treated, describe the nature and quantity of the treated waste and its onward fate/destination, and in particular whether it is sent for onward recovery or disposal operations.

If waste is treated and a material is produced that is no longer a waste, provide the rationale for such classification. The requirements of article 28 of the European Communities (Waste Directive) Regulations 2011 should be addressed in any such rationale.

D.2.5 Principles of self-sufficiency and proximity

Describe how the proposed waste activities will contribute to the State's obligation to establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste collected from private households, including where such collection also covers such waste from other producers. Describe how the proposed waste activities will enable the State to move towards being more self-sufficient in the management of these wastes.

Supporting information should form **Attachment Nº D.**

D.3 Additional Requirements for landfills (not covered above or elsewhere) (Class 11.5 of the First Schedule of the EPA Act 1992, as amended)

Not applicable

This section D.3 of the application form should be completed only by applicants applying for classes 11.5 and 11.7 (landfills and underground storage facilities) of the First Schedule to the EPA Act 1992, as amended. This includes landfills that are associated with other industrial activities.

All landfills must comply with the requirements of the Landfill Directive (1999/31/EC). It is the applicant's responsibility to ensure that all relevant requirements of the Directive are addressed and information provided in **Attachment D.3** of the application.

For wastes to be disposed of by landfilling on-site at industrial installations, full details of the disposal site should be submitted (to include *inter alia*, site selection procedures, location maps, (no larger than A3) geology, hydrogeology, operational plan, containment, gas and leachate management, post-closure care).

Applicants should have regard to the requirements of the Landfill Manuals published by the Environmental Protection Agency.

D.3.1 Class of landfill

Complete Table D.3(i) and include in Attachment D.3 of the application. State which of the categories in Table D.3(i) is relevant to the current application.

Not applicable

Table D.3(i) Class of landfill

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

D.3.2 Scale of waste deposition

Complete Table D.3(ii) and include in Attachment D.3 of the application. State the total quantity of waste for which authorisation is sought to be deposited in the landfill.

Not applicable

Table D.3(ii) Scale of waste deposition at the landfill

Total quantity of waste to be deposited at the landfill	Tonnes*	Void in cubic metres (m^3)
(a) Waste deposited to date		
(b) Total waste to be deposited over the lifetime of the development (including deposited to date)		

* Explain any conversion/density factors used in calculating the tonnage from the void, or vice versa.

D.3.3 Liner System

Complete Table D.3(iii) and include in Attachment D.3 of the application. Table D.3(iii) provides a checklist of items that should be described in greater detail in Attachment D.3.

Not applicable

D.3.4 Leachate Management

Complete Table D.3(iv) and include in Attachment D.3 of the application. Table D.3(iv) provides a checklist of items that should be described in greater detail in Attachment D.3. Provide a list and illustrate on a site drawing the location of all leachate monitoring, extraction and lead detection boreholes or installations.

Not applicable

D.3.5 Landfill Gas Management

Complete Tables D.3(v)a to D.3(v)d and include in Attachment D.3 of the application. The tables provide a checklist of items that should be described in greater detail in Attachment D.3. Provide an estimate of the volume of landfill gas which will be produced by the waste for the next 20 years.

Not applicable

D.3.6 Capping System

Complete Table D.3(vi) and include in Attachment D.3 of the application. Table D.3(vi) provides a checklist of items that should be described in greater detail in Attachment D.3.

Not applicable

D.3.7 Meteorological Data

State in Attachment D.3 what arrangements are proposed for the measurement of meteorological data at the landfill installation, or for the collation of relevant meteorological information from nearby facilities.

Not applicable

D.3.8 Cost of the landfill of waste

Describe in Attachment D.3 how all of the costs involved in the setting up and operation of the landfill, including the cost of financial provision, and the estimated cost of the closure and aftercare of the site for a period of at least 30 years will be covered by the gate fee to be charged for the disposal of waste.

Not applicable

SECTION E: EMISSIONS

E.1. Emissions to Atmosphere

E.1.A. Details of all point emissions to atmosphere

Details of all point emissions to atmosphere should be supplied. Complete Table E.1(i) for Boiler Emissions and Table E.1(ii) and E.1(iii) for all other main emission points. Complete Table E.1(iv) for minor emission points and provide results of emission monitoring where available.

A summary list of the emission points, together with maps and/or drawings (no larger than A3), and supporting documentation should be included as **Attachment Nº E.1**. Plans of emission elevations, relevant roof heights, etc., should also be included, as should detailed descriptions and schematics of all abatement systems.

The applicant should address in particular any emission point where the substances listed in the Schedule of EPA (Industrial Emissions) (Licensing) Regulations 2013, S.I. No. 137 of 2013, are emitted.

For emissions outside the BAT guidance limit or BAT Conclusions levels, a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within the limits as set out in the BAT guidance note(s). These notes can be found on the EPA website at www.epa.ie.

E.1.B. Fugitive and Potential emissions

Give summary details of fugitive and potential emissions in Table E.1(v).

In relation to activities listed in the Schedule of Council Directive 2010/75/EU (on Industrial Emissions) S.I. No.565 of 2012 on installations and activities using organic solvents;

- specify the relevant category of activity in the Schedule
- specify how the requirements in relation to fugitive emissions will be met.

For waste activities, dust and odour emissions should be described under the headings in this section.

Full details and any supporting information should form **Attachment E.1.**

E.2 Emissions to Surface Waters

Tables E.2(i) and E.2(ii) should be completed and provide results of emission monitoring where available.

A summary list of the emission points, together with maps/drawings (no larger than A3) and supporting documentation should be included as **Attachment Nº E.2**.

The applicant should address in particular any emission point where the substances listed in the Schedule of EPA (Industrial Emissions) (Licensing) Regulations 2013 S.I. No. 137 of 2013, are emitted.

Details of all substances listed in the European Communities Environmental Objectives (Surface Waters) Regulations 2009, contained in any emission must be presented.

All surface water runoff and storm water drains discharging to surface water bodies must be included. A National Grid Reference (12 digit, 6E, 6N) must be given for all discharge points the identity and type of receiving water (river, ditch, estuary, lake, etc.) must be stated.

Where relevant, describe proposed measures or controls that have been identified in a pollution reduction plan for the river basin district prepared in accordance with Part V of the EC Environmental Objectives (Surface Waters) Regulations 2009 for the reduction of pollution by priority substances or the ceasing or phasing out of emissions, discharges and losses of priority hazardous substances.

For emissions outside the BAT guidance limit or BAT Conclusions levels, a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within the limits as set out in the BAT guidance note(s).

E.3 Emissions to Sewer

Tables E.3(i) and E.3(ii) should be completed and provide results of emission monitoring where available.

A summary list of the emission points, together with maps and/or drawings (no larger than A3) and supporting documentation should be included as **Attachment Nº E.3**. Details of all List I and List II substances listed in the Annex to EU Directive 2006/11/EC (as amended), contained in any emission must be presented. All relevant information on the receiving sewer**,** including any effluent treatment/abatement systems, not already described, with schematics as appropriate should also be included in **Attachment Nº E.3**.

For emissions outside BAT guidance limit (where given), a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within any limits set out in the BAT guidance note(s).

E.4 Emissions to Ground

Describe in **Attachment Nº E.4** the existing or proposed arrangements necessary to give effect to Council Directive 2006/118/EC on the protection of groundwater against pollution and deterioration and Council Directive 80/68/EEC on the protection of groundwater against pollution by certain dangerous substances.

The applicant should supply details of the nature and quality of any substance (agricultural and non-agricultural waste) to be landspread (slurry, effluent, sludges etc) as well as the proposed application rates, periods of application and mode of application (e.g., pipe discharge, tanker) having regard to the European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2010, S.I. No 610 of 2010.

For emissions outside the BAT guidance limit, a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within the limits as set out in the BAT guidance note(s).

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 Nº E.5**.

The Agency's *Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)* (2012) should be consulted (available on www.epa.ie) where a noise impact assessment is required. A planned programme of improvement towards meeting upgraded standards is required and should have due regard to the noise control and mitigation measures outlined in section 8 and appendix (IX) of the *Guidance Note.* This programme should highlight specific goals and a time scale, together with options for modification, upgrading or replacement, as required, to bring the emissions within the limits as set out in the *Guidance Note*.

E.6 Tabular Data on Emission Points

Applicants should submit the following information for each emission point:

Point Code	Point Type	Easting	Northing	Verified	Emission
Provide label ID's assigned in section E	A=Atmospheric SW=Surface Water SE = Sewer GW=Groundwater N = Noise SL=Soil/Ground WS=Waste	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used	e.g. SO_2, HCl, NH_3

An individual record (i.e. row) is required for each emission point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at www.epa.ie. This data should be submitted to the Agency on a separate CD-Rom containing sections B.2, E.6 and F.3.

Point Code	Point Type	Easting	Northing	Verified	Potential Emission
O1	Atmospheric	710373	740807	N	Odour
SE1	Sewer	710246	740810	N	BOD
SE1	Sewer	710246	740810	N	COD
SE1	Sewer	710246	740810	N	Ammoniacal Nitrogen
SE1	Sewer	710246	740810	N	Suspended solids
SE1	Sewer	710246	740810	N	Sulphate as (SO4)
SE1	Sewer	710246	740810	N	Detergents
SE1	Sewer	710246	740810	N	Fats, Oils & Greases
SE1	Sewer	710246	740810	N	Phosphates (as P)
SE1	Sewer	710246	740810	N	pH
SE1	Sewer	710246	740810	N	Temperature
SW1	Surface water	710248	740812	N	BOD

Point Code	Point Type	Easting	Northing	Verified	Potential Emission
SW1	Surface water	710248	740812	N	COD
SW1	Surface water	710248	740812	N	Suspended solids
SW1	Surface water	710248	740812	N	pH
SW1	Surface water	710248	740812	N	Temperature
SW1	Surface water	710248	740812	N	Mineral Oil
SW1	Surface water	710248	740812	N	Conductivity
N1	Noise [1]			N	Noise
N2	Noise			N	Noise

[1] Noise emissions, while not emitted from a single point source are included in this table as N1 & N2, representing the roller shutter doors of the waste processing building

SECTION F: CONTROL & MONITORING

Describe the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation.

Describe the measures to be taken under abnormal operating conditions, including start-up, shutdown, leaks, malfunctions, breakdowns and momentary stoppages.

Describe the measures to be taken to prevent or eliminate emissions and/or avoid pollution.

Describe what appropriate measures are to be taken where an Environmental Quality Standard requires stricter conditions than would be determined with reference to BAT

F.1: Treatment, Abatement and Control Systems

Details of treatment/abatement systems (air and effluent emissions) should be included, together with schematics as appropriate.

For each Emission Point identified complete Table F.1(i) and include detailed descriptions and schematics of all abatement systems.

Attachment Nº F.1 should contain any supporting information.

F.2: Emissions Monitoring and Sampling Points

Identify monitoring and sampling points and outline proposals for monitoring **emissions**. Table F.2(i) should be completed (where relevant) for air emissions, emissions to surface waters, emissions to sewer, emissions to ground and waste emissions. Where **ambient** environment monitoring is carried out or proposed, Table F.2 (ii) should be completed as relevant for each environmental medium.

Include details of monitoring/sampling locations and methods.

Attachment Nº F.2 should contain any supporting information.

F.3: Tabular Data on Monitoring and Sampling Points

Applicants should submit the following information for each monitoring and sampling point:

Point Code	Point Type	Easting	Northing	Verified	Pollutant
Provide label ID's assigned in section F3	M=Monitoring S=Sampling	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used	e.g. SO_2, HCl, NH_3

An individual record (i.e. row) is required for each monitoring and sampling point. Acceptable file formats include Excel, Access or other upon agreement with the Agency.

A standard Excel template can be downloaded from the EPA website at www.epa.ie. This data should be submitted to the Agency on a separate CD-Rom containing sections B.2, E.6 and F.3.

Point source monitoring/sampling refers to monitoring from specific emission points (e.g. from a boiler stack or outlet from a wastewater treatment plant). Examples of ambient monitoring includes monitoring of ambient air quality (e.g. boundary or off-site) or monitoring of river quality upstream/downstream of an effluent discharge.

Point Code	Point Type	Easting	Northing	Verified	Pollutant
D1	Monitoring	710369	740878	N	Dust
D2	Monitoring	710327	740706	N	
SE1M	Monitoring	710246	740810	N	Suspended Solids, BOD, Ammoniacal Nitrogen, COD, Sulphate, Fats, Oil & Greases, Phosphates, Detergents, pH, temperature
SW1M	Monitoring	710248	740812	N	Suspended Solids, BOD, Ammoniacal, Nitrogen, COD, Chloride, pH, temperature, mineral oil, conductivity
N1	Monitoring	710182	740820	N	Noise
O1M	Monitoring	710373	740807	N	Odour

SECTION G: RESOURCE USE AND ENERGY EFFICIENCY

G.1 Give a list of the raw and ancillary materials, substances, preparations, fuels and energy which will be produced by or utilised in the activity.

The list(s) given should be very comprehensive, all materials used, fuels, intermediates, laboratory chemicals and product should be included.

Particular attention should be paid to materials and product consisting of, or containing, dangerous substances as described in the EU (Classification, Packaging, Labelling and Notification of Dangerous Substances) Regulations 2003 [SI 116/2003] as amended and Regulation (EC) No. 1272/2008. The list must classify these materials in accordance with both of these Regulations, and must specify the designated Risk Phrases (R-Phrases) and Hazard Statements. Hazard statements for each substance should be in accordance with Article 21 of the EC Regulation 1272/2008.

The list must identify any **Substances of Very High Concern (SVHC)** listed in Annex XIV of the REACH Regulations (Regulation (EC) No 1907/2006) as amended and indicate whether the use has been authorised or is exempted in accordance with the Regulation. In the case(s) of exempted use(s) the list must state the basis for each intended exempted use concerned.

Tables G.1 (i) and G.1(ii) must be completed. Copy as required.

Supporting information should be given in **Attachment № G.**

For waste activities (class 11 of the First Schedule to the EPA Act 1992, as amended), do not include here the list of wastes to be accepted for recovery and disposal. This should be described in section D.2 of the application.

G.2 Energy Efficiency

A description of the energy used in or generated by the activity must be provided in **Attachment № G**. Outline the measures taken to ensure that energy is used efficiently having regard to the relevant decision on BAT conclusions and/or BAT guidance and where appropriate, an energy audit with reference to the EPA Guidance document on Energy Audits should be carried out.

SECTION H: MATERIALS HANDLING

H.1 Raw Materials, Intermediates and Product Handling

All materials will have been listed in Tables G.1 (i) and G.(ii) of **Section G**.

Details of the storage conditions, location within the site, segregation system used and transport systems within the site should be outlined here in **Attachment Nº H.1**. In addition, information relating to the integrity, impermeability and recent testing of pipes, tanks and bund areas should be outlined.

H.2 Waste Prevention

Describe in **Attachment Nº H.2** the arrangements for the prevention of waste in accordance with Part III of the Waste Management Act 1996, as amended. Describe what measures will be taken to prevent the generation of waste to the extent possible. State whether the installation has participated in any projects under the National Waste Prevention Programme.

H.3 Describe the arrangements for the recovery or disposal of solid and liquid wastes generated at the installation.

Applicants should ensure that information is provided for each waste generated at the installation under each of the following headings:

(a) Description & nature of waste
(b) Source
(c) European Waste Catalogue Code (Commission Decision 2000/532/EC, as amended)
(d) Animal by-product category per EC Reg. 1069/2009 where relevant
(e) Amount in tonnes per month
(f) Location and method of disposal or recovery (on-site or off-site)

The following information should also be provided where appropriate:
(g) Analysis of the waste (include test methods and Q.C.)
(h) Its location of storage and the manner by which the integrity/impermeability of storage areas is maintained
(i) Period or periods of generation of the waste

Where any waste would be classified as Hazardous Waste as defined in the Waste Management Act, 1996, as amended, this should be made clear in the information provided.

The Table H.3(i) should be completed with a single row for each waste generated at the installation. The table should be provided as part of **Attachment Nº H.3.**

For waste activities (class 11 of the First Schedule to the EPA Act 1992, as amended), do not repeat the information already sought in section D.2.3 of the application form and presented in Attachment D.2 of the application.

H.4 Waste hierarchy

Where waste is generated by the installation, describe in **Attachment Nº H.4** how it will be in order of priority in accordance with section 21A of the Waste Management Act 1996, as amended, prepared for re-use, recycling, recovery or where that is not technically or economically possible, disposed of in a manner which will prevent or minimise any impact on the environment.

Section 29(2A) of the Waste Management Act 1996, as amended states that it shall be the duty of waste producers and holders to ensure that waste undergoes recovery operations in accordance with sections 21A and 32(1) of the Acts.

Describe how the waste hierarchy specified in article 21A of the Waste Management Act 1996, as amended, will be implemented at the installation. Describe how the waste generated at the installation will be managed in accordance with the waste hierarchy.

For waste whose generation cannot be prevented, describe what measures will be in place to ensure that waste is collected separately (if technically, environmentally and economically practicable) and will not be mixed with other waste or other material with different properties.

H.5 Waste recycling and recovery

Describe how the activities at the installation contribute to national targets for the recycling and recovery of waste, not least:

- the preparing for reuse and the recycling of paper, metal, plastic and glass; and
- the preparing for reuse, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition waste excluding naturally occurring material defined in category 17 05 04 in the list of waste.

State whether and describe how food waste will be managed in accordance with the requirements, as may be relevant, of the Waste Management (Food Waste) Regulations 2009.

Supporting information should form **Attachment № H.5**.

SECTION I: EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY

Describe the conditions of the site of the installation.

Provide an assessment of the effects of any emissions on the environment, including on an environmental medium other than that into which the emissions are made.

Describe, where appropriate, measures for minimising pollution over long distances or in the territory of other states.

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 as to whether or not emissions of main polluting substances (as defined in the Schedule of EPA (Industrial Emissions) (Licensing) Regulations 2013, S.I. No. 137 of 2013) 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 Nº I.1 should also contain full details of any dispersion modelling of atmospheric emissions from the activity, where required. When carrying out dispersion modelling, regard should be had to the EPA "Air Dispersion Modelling from Industrial installations Guidance Note (AG4)" or similar guidelines from a recognised authority.

Describe, where appropriate, measures for minimising pollution over long distances or in the territory of other states.

I.2. Assessment of Impact on Receiving Surface Water

Describe the existing environment in terms of water quality with particular reference to environmental quality objectives and standards and any objectives and standards laid down for protected areas. Table I.2(i) should be completed

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of EPA (Licensing)(Amendment) Regulations 2004, S.I. No. 394 of 2004) to water are likely to impair the environment.

Indicate whether or not the activity complies with the requirements of the EC Environmental Objectives (Surface Waters) Regulations 2009, S.I. No. 272 of 2009.

If the discharge is to water body that is already achieving high status, or if the discharge is to waters draining to the surface water bodies identified under the First Schedule of the *EC Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009*, compliance must be with the 95%ile **high** status limits.

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 Nº I.2.**

For emissions outside emission limit established according to the combined approach, a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting the upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within the limits established in accordance with the combined approach.

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.

With regard to Article 15 of the Industrial Emissions Directive (or Section 86A(8) of the EPA Act 1992, as amended), describe how the environment as a whole is provided an equivalent level of protection and will not lead to higher levels of pollution in the environment.

Full details of the assessment and any other supporting information should form **Attachment Nº I.3.**

I.4 Assessment of Impact of Ground/Groundwater Emissions

Baseline Report
In the case of an activity that involves the use, production or release of relevant hazardous substances (as defined in section 3 of the EPA Act 1992 as amended), and having regard to the possibility of soil and groundwater contamination at the site of the installation, provide a baseline report in accordance with section 86B of the EPA Act 1992 as amended. Has the Agency indicated in pre-application discussions that a baseline report is required?

A baseline report shall contain the information necessary to determine the state of contamination of soil and groundwater at the time the report is drawn up in order that a quantified comparison may be made to the state of the site upon the permanent cessation of the industrial emissions directive activity.

Guidance in relation to baseline reports is available on the EPA website at www.epa.ie.

The Baseline Report should be included in **Attachment I.4** and clearly labelled as such.

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

Give summary details and an assessment of the impacts of any existing or proposed emissions on the ground (aquifers, soils, sub-soils and rock environment), including any impact on environmental media other than those into which the emissions are to be made. This includes landspreading, land injection etc.

Land on which material may be landspread shall be identified on a suitable scaled map (1:10,560 and 1:50,000) and submitted as no greater than A3 size. All vulnerable (as a result of ground emissions) surface water bodies must be identified on these maps. Additional information should be included in **Attachment Nº I.4**.

Attachment Nº I.4 should also contain full details of any modelling carried out of the potential impact of emissions from the activity on groundwater.

Landspreading of Agricultural/Non Agricultural Wastes

Tables I.4(ii) and I.4.(iii) should be complete where applicable. Further information is available in the Application Guidance Document.

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.

Indicate whether or not compliance with the requirements of the EC Environmental Objectives (Groundwater) Regulations 2010, S.I. No. 9 of 2010 can be achieved.

Full details including all relevant investigative studies, assessments, or reports, monitoring results, location and design of monitoring installations, plans, drawings, documentation, including containment engineering, remedial works, and any other supporting information should be included in **Attachment Nº I.5**.

I.6 Assessment of the Environmental Impact of On-site Waste Recovery and/or Disposal.

Describe the arrangements for any on-site recovery and disposal of waste generated by the activity.

Give details and an assessment of the impact of any existing or proposed on-site waste recovery or disposal activities on the environment, including environmental media other than those into which the emissions are to be made.

This information should form **Attachment Nº I.6.**

I.7 Noise Impact

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

Ambient noise measurements

Complete Table I.7 (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 (or residual) noise levels experienced at the site in the absence of noise from this operation.

Prediction models, maps (no larger than A3), diagrams and supporting documents, including details of noise attenuation and noise proposed control measures to be employed, should form **Attachment Nº I.7.**

I.8 Environmental Considerations, Main alternatives and BAT

I.8a Describe in outline the main alternatives to the proposed technology, techniques and measures which were studied having regard to the reference document on Economic and Cross-media Effects.

I.8b Identify in the table below all relevant decisions on BAT Conclusions (Commission Implementing Decision (CID)), BAT reference document(s) (BREFs) and EPA BAT guidance document(s) having regard to the activities and processes proposed or carried out at the installation.

These documents are available on the European IPPC bureau website at http://eippcb.jrc.ec.europa.eu/reference/ and the EPA website www.epa.ie.

Title of Document
European Commission – Reference Document on Best Available Techniques for the Waste Treatment Industries (BREF Document) – August 2006
European Commission – Reference Document on Best Available Techniques for Energy Efficiency (BREF Document) – February 2009
European Commission – Reference Document on the General Principles of Monitoring (REF Document) – July 2003
EPA – BAT Guidance Note on Best Available Techniques for the Waste Sector: Waste Transfer and Materials Recovery – December 2011

1.8c In order to determine BAT for the installation, tabulate using table I.8(i) below, all of the BAT conclusions from the relevant decision on BAT Conclusions (CID) or where this has not been adopted by the Commission of the European Union, the conclusions on BAT from the relevant BAT reference documents (BREF). To assist you with this, some pre-populated template documents are available for download on the EPA website http://www.epa.ie/pubs/forms/lic/industrial%20emissions/

For each BAT, in Table I.8(i), state whether it is applicable to your installation and describe how each BAT applies or not to your installation and provide information on your compliance with the requirement.

It may be useful to first identify all the 'Not Applicable' BATs and provide your reasoning in the 'Applicability Assessment' box as to why you consider this particular BAT is not applicable at/to your entire installation having regard to the scope/ definitions, general considerations and the information on applicability. (You may need to make reference to relevant processes/activities or individual emission points to provide a comprehensive response).

For each applicable BAT, state the status; 'Yes', 'Will be' or 'No' as appropriate, the use of each of these terms is described below. Information on compliance in the 'Applicability Assessment' box should include, where applicable, the following:

(i) Identification of the relevant process/activity or individual emission points that the BAT requirement applies to at your installation;
(ii) Where BAT is to use one or a combination of listed techniques, specify the technique(s) implemented/proposed at your installation to achieve the BAT;
(iii) In relation to emissions the emission level achieved at the installation under normal conditions as compared with the BAT associated Emission Levels (only applicable to decisions on BAT conclusions); and
(iv) A comment on how the requirements are being met or will be met, e.g., a description of the technology/operational controls/management proposed to meet the requirements.

Use of terms:

(a) 'Yes' – To be selected where the installation is currently compliant with this BAT requirement.

(b) 'Will be' – To be selected where a further technique is required to be installed to achieve compliance with the BAT requirement. In this case you must also specify the date by which the installation will comply with the BAT Conclusion requirement.

(c) 'No' – (only applicable to decisions on BAT Conclusions) To be selected where the achievement of emission level associated with BAT as described in a decision on BAT conclusions would lead to disproportionately higher costs compared to the environmental benefits due to –
   (i) the geographical location or the local environmental conditions of the installation concerned, or
   (ii) the technical characteristics of the installation concerned.

   Note: By selecting 'No' to an applicable emission level associated with a BAT requirement you are required to provide a detailed assessment that includes the reason and justification, in accordance with the requirements of Section 86A(6) of the EPA Act 1992 as amended.

Please note the following:

I. Refer to the EPA BAT Guidance Note relevant to the sector for BAT associated emission levels in the circumstances where a relevant decision on BAT Conclusions has not been adopted by the European Commission i.e. no CID in place.

II. Where a decision on BAT conclusion or conclusion on BAT from a BAT reference document does not apply to activities/processes or certain aspects of an installation, refer to the relevant EPA BAT Guidance Note(s) for the determination of BAT.

I.8d Emerging Techniques

State whether you propose to test and use an 'emerging technique' in particular those identified in the BAT reference documents relevant to the activity:

☐ Yes ☒ No

If yes, describe your proposal and include in **Attachment Nº. I.8d.**

I.8e Other relevant conclusions on BAT

Please note that other reference documents may be relevant such as:
(a) BREF on Common waste water and waste gas treatment/management systems in the Chemical Sector;
(b) BREF on Emissions from Storage;
(c) BREF on Energy Efficiency;
(d) BREF on Industrial Cooling Systems;

Other documents that may be relevant:
(a) REF on Economic and Cross-media Effects;
(b) REF on Monitoring of Emissions from IED installations;
(c) Landfill Directive 1999/31/EC etc.

In this case tabulate using table I.8(i) below all the relevant BAT conclusions. Complete a separate table for each BREF and follow the instructions given above. To assist you with this, some pre-populated template documents are available for download on the EPA website http://www.epa.ie/pubs/forms/lic/industrial%20emissions/

I.8f Describe any environmental considerations which have been made with respect to the use of cleaner technologies, waste minimisation and raw material substitution.

I.8g Describe the measures proposed or in place to ensure that:

(a) The best available techniques are or will be used to prevent or eliminate or, where that is not practicable, generally reduce an emission from the activity;
(b) no significant pollution is caused;
(c) waste production is avoided in accordance with the waste hierarchy in Council Directive 98/2008/EC on waste and section 21A of the Waste Management Act 1996, as amended; where waste is produced, it is prepared for re-use, recycled or recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment (applicants should provide this information in the context of sections 29(2A), 32 and 38(5A) of the Waste Management Act 1996, as amended);
(d) energy and other resources are used efficiently;
(e) the necessary measures are taken to prevent accidents and limit their consequences;
(f) the necessary measures are taken upon definitive cessation of activities to avoid any pollution risk and return the site of operation to a satisfactory state.

Supporting information should form **Attachment No I.8a to g.**

Table I.8 (i) CONCLUSIONS ON BAT (One table for each relevant BAT reference document)

BREF ON BEST AVAILABLE TECHNIQUES FOR THE WASTE TREATMENT INDUSTRIES

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
	Environmental Management BAT is to:		
1	Implement and adhere to an EMS that incorporates, as appropriate to individual circumstances, the following features (see Section 4.1.2.8 of BREF).		
1a	(a) Definition of an environmental policy for the installation by top management (commitment of the top management is regarded as a precondition for a successful application of other features of the EMS).	To be contained within the EMS for the installation which will be produced prior to operation and will be developed in accordance with Thorntons Recycling existing ISO14001 accreditation	Will be in place
1b	(b) Planning and establishing the necessary procedures.	To be contained within the EMS for the installation which will be produced prior to operation and will be developed in accordance with Thorntons Recycling existing ISO14001 accreditation	Will be in place
1c	(c) Implementation of the procedures, paying particular attention to: • structure and responsibility; • training, awareness and competence; • communication, employee involvement; • documentation; • efficient process control; • maintenance programme;	To be contained within the EMS for the installation which will be produced prior to operation and will be developed in accordance with Thorntons Recycling existing ISO14001 accreditation	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
	• emergency preparedness and response; • safeguarding compliance with environmental legislation.		
1d	(d) Checking performance and taking corrective action, paying particular attention to: • monitoring and measurement (see also the Reference document on General Principles of Monitoring); • corrective and preventive action; • maintenance of records; • independent (where applicable) internal auditing in order to determine whether or not the environmental management system conforms to planned arrangements and has been properly implemented and maintained.	To be contained within the EMS for the installation which will be produced prior to operation and will be developed in accordance with Thorntons Recycling existing ISO14001 accreditation	Will be in place
1e	(e) Review by top management	To be contained within the EMS for the installation which will be produced prior to operation and will be developed in accordance with Thorntons Recycling existing ISO14001 accreditation	Will be in place
1f (not mandatory)	(f) Having the management system and audit procedure examined and validated by an accredited certification body or an external EMS verifier.	Both the management system and audit procedure will be examined and validated by an accredited certification body following its production, in accordance with Thorntons Recycling existing ISO 14001 accreditation	Will be in place
1g (not mandatory)	(g) Preparation and publication (and possibly external validation) of a regular environmental statement describing all the significant environmental aspects of the installation, allowing for year-by-year comparison against environmental objectives and targets as well as with sector benchmarks as appropriate.	An annual environmental report will be produced for the installation which will describe all the significant environmental aspects of the installation	Will be in place
1h (not mandatory)	(h) Implementation and adherence to an internationally accepted voluntary system such as EMAS or EN ISO 14001:1996. This voluntary step could give higher credibility to the EMS. In particular, EMAS, which embodies all the above-mentioned features, gives higher credibility. However, non-standardised systems can in principle be equally effective provided that they are properly designed and implemented.	All Thorntons Recycling licenced and permitted facilities have achieved and maintained the ISO 14001, OHSAS 18001 and Quality 9001 standards since 2009. This installation will also seek to achieve and maintain these standards.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
1i (not mandatory)	(i) Giving consideration to the environmental impact from the eventual decommissioning of the unit at the stage of designing a new plant.	To be considered within the EMS for the installation which will be produced prior to operation and will be developed in accordance with Thorntons Recycling existing ISO14001 accreditation	Will be in place
1j (not mandatory)	(j) Giving consideration to the development of cleaner technologies.	To be considered within the EMS for the installation which will be produced prior to operation and will be developed in accordance with Thorntons Recycling existing ISO14001 accreditation	Will be in place
1k (not mandatory)	(k) Where practicable, sectoral benchmarking on a regular basis, including energy efficiency and energy conservation activities, choice of input materials, emissions to air, discharges to water, consumption of water and generation of waste.	To be considered within the EMS for the installation which will be produced prior to operation and will be developed in accordance with Thorntons Recycling existing ISO14001 accreditation	Will be in place
2	Ensure the provision of full details of the activities carried out on-site. A good detail of that is contained in the following documentation (see Section 4.1.2.7 and related to BAT number 1.g)		
2a	a. descriptions of the waste treatment methods and procedures in place in the installation	Provided in Volume 2, Chapter 2 of the EIS accompanying this application	In place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
2b	b. diagrams of the main plant items where they have some environmental relevance, together with process flow diagrams (schematics)	Provided in Volume 2, Chapter 2 of the EIS accompanying this application	In place
2c	c. details of the chemical reactions and their reaction kinetics/energy balance	Provided in Volume 2, Chapter 2 of the EIS accompanying this application	In place
2d	d. details on the control system philosophy and how the control system incorporates the environmental monitoring information	Provided in Volume 2, Chapter 2 of the EIS accompanying this application	In place
2e	e. details on how protection is provided during abnormal operating conditions such as momentary stoppages, start-ups, and shutdowns	Provided in Volume 2, Chapter 2 of the EIS accompanying this application	In place
2f	f. an instruction manual	Will be provided on site upon the commencement of operations at the installation	Will be in place
2g	g. an operational diary (related to BAT number 3)	Will be provided on site upon the commencement of operations at the installation	Will be in place
2h	h. an annual survey of the activities carried out and the waste treated. The annual survey should also contain a quarterly balance sheet of the waste and residue streams, including the auxiliary materials used for each site (related to BAT number 1.g).	Will be provided on site upon the commencement of operations at the installation	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
3	Have a good housekeeping procedure in place, which will also cover the maintenance procedure, and an adequate training programme, covering the preventive actions that workers need to take on health and safety issues and environmental risks (see Sections 4.1.1.4, 4.1.1.5, 4.1.2.5, 4.1.2.10, 4.1.4.8 and 4.1.4.3)	Will be provided on site upon the commencement of operations at the installation	Will be in place
4	Try to have a close relationship with the waste producer/holder in order that the customer's sites implement measures to produce the required quality of waste necessary for the waste treatment process to be carried out (see Section 4.1.2.9)	Thorntons Recycling maintains close relationships with all its current waste producers and will ensure that this is continued so that the required amount of waste for treatment at the installation is produced.	Will be in place
5	Have sufficient staff available and on duty with the requisite qualifications at all times. All personnel should undergo specific job training and further education (see Section 4.1.2.10. This is also related to BAT number 3)	Thorntons Recycling will ensure that a sufficient number of staff are on duty on site during the operation of the installation, and that these staff are adequately qualified and trained to carry out their duties.	Will be in place
	Waste In BAT is to:		
6	Have a concrete knowledge of the waste IN. Such knowledge needs to take into account the waste OUT, the treatment to be carried out, the type of waste, the origin of the waste, the procedure under consideration (see BAT number 7 and 8) and the risk (related to waste OUT and the treatment) (see Section 4.1.1.1). Guidance on some of these issues is provided in Sections 4.2.3, 4.3.2.2 and 4.4.1.2.	Thorntons Recycling will record and maintain all details in relation to waste accepted and subsequently consigned at the installation	Will be in place
7	Implement pre-acceptance procedure containing at least the following items (see Section 4.1.1.2):		
7a	a. tests for the incoming waste with respect to the planned treatment	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
7b	b. making sure that all necessary information is received on the nature of the process(es) producing the waste, including the variability of the process. The personnel having to deal with the pre-acceptance procedure need to be able due to his profession and/or experience to deal with all necessary questions relevant for the treatment of the wastes in the WT facility	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
7c	c. a system for providing and analysing a representative sample(s) of the waste from the production process producing such waste from the current holder	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
7d	d. a system for carefully verifying, if not dealing directly with the waste producer, the information received at the pre-acceptance stage, including the contact details for the waste producer and an appropriate description of the waste regarding its composition and hazardousness	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
7e	e. making sure that the waste code according to the European Waste List (EWL) is provided	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
7f	f. identifying the appropriate treatment for each waste to be received at the installation (see Section 4.1.2.1) by identifying a suitable treatment method for each new waste enquiry and having a clear methodology in place to assess the treatment of waste, that considers the physico-chemical properties of the individual waste and the specifications for the treated waste.	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
8	Implement an acceptance procedure containing at least the following items (see Section 4.1.1.3):		
8a	a. a clear and specified system allowing the operator to accept wastes at the receiving plant only if a defined treatment method and disposal/recovery route for the output of the treatment is determined (see pre-acceptance in BAT number 7). Regarding the planning for the acceptance, it needs to be guaranteed that the necessary storage (see	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
	Section 4.1.4.1), treatment capacity and dispatch conditions (e.g. acceptance criteria of the output by the other installation) are also respected.	licence.	
8b	b. measures in place to fully document and deal with acceptable wastes arriving at the site, such as a pre-booking system, to ensure e.g. that sufficient capacity is available	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
8c	c. clear and unambiguous criteria for the rejection of wastes and the reporting of all non-conformances	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
8d	d. a system for identifying the maximum capacity limit of waste that can be stored at the facility (related to BAT number 10.b, 10.c, 27 and 24.f)	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
8e	e. visually inspect the waste IN to check compliance with the description received during the pre-acceptance procedure. *For some liquid and hazardous waste, this BAT is not applicable* (see Section 4.1.1.3).	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
9	Implement different sampling procedures for all different incoming waste vessels delivered in bulk and/or containers. These sample procedures may contain the following items (see Section 4.1.1.4):		
9a	a. sampling procedures based on a risk approach. Some elements to consider are the type of waste (e.g. hazardous or non-hazardous) and the knowledge of the customer (e.g. waste producer)	Thorntons Recycling will have waste handling procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
9b	b. check on the relevant physico-chemical parameters. The relevant parameters are related to the knowledge of the waste needed in each case (see BAT number 6)	Thorntons Recycling will have waste handling procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
9c	c. registration of all waste materials	Thorntons Recycling will have waste handling procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
9d	d. have different sampling procedures for bulk (liquid and solids), large and small containers and laboratory smalls. The number of samples taken should increase with the number of containers. In extreme situations, small containers must all be checked against the accompanying paperwork. The procedure should contain a system for recording the number of samples and degree of consolidation	Note that the waste types proposed for acceptance at the facility will be accepted in the vast majority pf cases for skips, tipper trailer, ro-ro container etc. and as such, will require similar sampling procedures, in the event of sampling being adopted. No bulk liquids or laboratory smalls will be accepted at the facility.	Will be in place
9e	e. details of the sampling of wastes in drums within designated storage, e.g. the timescale after receipt	No waste material will be accepted in drums at the facility.	Not applicable
9f	f. sample prior to acceptance	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
9g	g. maintenance of a record at the installation of the sampling regime for each load, together with a record of the justification for the selection of each option	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
9h	h. a system for determining and recording: • a suitable location for the sampling points • the capacity of the vessel sampled (for samples from drums, an additional parameter would be the total number of drums) • the number of samples and degree of consolidation • the operating conditions at the time of sampling.	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
9i	i. a system to ensure that the waste samples are analysed (see Section 4.1.1.5)	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence. Where required, systems for the analysis of waste samples will be developed.	Will be in place
9j	j. in the case of cold ambient temperatures, a temporary storage may be needed in order to allow sampling after defrosting. This may affect the applicability of some of the above items in this BAT (see Section 4.1.1.5).	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence. Where required, systems for the analysis of waste samples will be developed.	Will be in place
10	Have a reception facility covering at least the following issues (see Section 4.1.1.5):		
10a	a. have a laboratory to analyse all the samples at the speed required by BAT. Typically this requires having a robust quality assurance system, quality control methods and maintaining suitable records for storing the analyses results. *Particularly for hazardous wastes, this often means that the laboratory needs to be on-site*	Thorntons Recycling will retain the services of a fully accredited and approved laboratory to undertake and report on any and all sampling required in relation to the facility operation.	Will be in place
10b	b. have a dedicated quarantine waste storage area as well as written procedures to manage non-accepted waste. If the inspection or analysis indicates that the wastes fail to meet the acceptance criteria (including, e.g. damaged, corroded or unlabelled drums) then the wastes can be temporarily stored there safely. Such storage and procedures should be designed and managed to promote the rapid management (typically a matter of days or less) to find a solution for that waste	A dedicated waste quarantine area will be provided within the waste processing building and procedures for the inspection, management and consignment for non-conforming waste (if present) will be developed in accordance with the requirements of the facility EMS and IE licence.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
10c	c. have a clear procedure dealing with wastes where inspection and/or analysis prove that they do not fulfil the acceptance criteria of the plant or do not fit with the waste description received during the pre-acceptance procedure. The procedure should include all measures as required by the permit or national/international legislation to inform competent authorities, to safely store the delivery for any transition period or to reject the waste and send it back to the waste producer or to any other authorised destination	A dedicated waste quarantine area will be provided within the waste processing building and procedures for the inspection, management and consignment for non-conforming waste (if present) will be developed in accordance with the requirements of the facility EMS and IE licence.	Will be in place
10d	d. move waste to the storage area only after acceptance of the waste (related to BAT number 8)	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
10e	e. mark the inspection, unloading and sampling areas on a site plan	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence.	Will be in place
10f	f. have a sealed drainage system (related to BAT number 63)	A sealed drainage system will be in place at the installation. See Volume 2, Chapter 12 of the EIS accompanying this application for further details.	Will be in place
10g	g. a system to ensure that the installation personnel who are involved in the sampling, checking and analysis procedures are suitably qualified and adequately trained, and that the training is updated on a regular basis (related to BAT number 5)	Thorntons Recycling will ensure that all the staff on duty on site during the operation of the installation are adequately qualified and trained to carry out their duties.	Will be in place
10h	h. the application of a waste tracking system unique identifier (label/code) to each container at this stage. The identifier will contain at least the date of arrival on-site and the waste code (related to BAT number 9 and 12).	Thorntons Recycling will have waste acceptance procedures in place for all incoming waste to the installation, in accordance with the requirements of the facility EMS and IE licence. Each load of waste arriving to and consigned from the site will be tracked utilising the on site weighbridge data management software.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
	Waste Out BAT is to:		
11	To improve the knowledge of the waste OUT, BAT is to analyse the waste OUT according to the relevant parameters important for the receiving facility (e.g. landfill, incinerator) (see Section 4.1.1.1).	Thorntons Recycling will have waste handling procedures in place for all outgoing waste from the installation. These procedures are detailed in Volume 2, Chapter 2 of the EIS accompanying this application.	Will be in place
	Management systems BAT is to:		
12	Have a system in place to guarantee the traceability of waste treatment. Different procedures may be needed to take into account the physico-chemical properties of the waste (e.g. liquid, solid), type of WT process (e.g. continuous, batch) as well as the changes that may occur to the physico-chemical properties of the wastes when the WT is carried out. A good traceability system contains the following items (see Section 4.1.2.3):	Thorntons Recycling will have waste management procedures in place for all waste requiring treatment at the installation. These procedures will be in place prior to commencement of operations at the installation.	Will be in place
12a	a. documenting the treatments by flow charts and mass balances (see Section 4.1.2.4 and this is also related to BAT number 2.a)	Thorntons Recycling will have flow charts and mass balance for all waste management procedures in place at the installation as an integral part of the facility management. These procedures will be in place prior to commencement of operations at the installation as part of the facility EMS.	Will be in place
12b	b. carrying out data traceability through several operational steps (e.g. pre-acceptance/acceptance/storage/treatment/dispatch). Records can be made and kept up-to-date on an ongoing basis to reflect deliveries, on-site treatment and dispatches. Records are typically held for a minimum of six months after the waste has been dispatched	Thorntons Recycling will have waste management procedures in place for all wastes managed at the installation. These procedures will be in place prior to commencement of operations at the installation as part of the facility EMS.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
12c	c. recording and referencing the information on waste characteristics and the source of the waste stream, so that it is available at all times. A reference number needs to be given to the waste and needs to be obtainable at any time in the process to enable the operator to identify where a specific waste is in the installation, the length of time it has been there and the proposed or actual treatment route	Thorntons Recycling will have waste management procedures in place for all waste managed at the installation. These procedures will be in place prior to commencement of operations at the installation as part of the facility EMS.	Will be in place
12d	d. having a computer database/series of databases, which are regularly backed up. The tracking system operates as a waste inventory/stock control system and includes: • date of arrival on-site, • waste producer details, • details on all previous holders, • an unique identifier, • pre-acceptance and acceptance analysis results, • package type and size, • intended treatment/disposal route, • an accurate record of the nature and quantity of wastes held on-site including all hazards details on where the waste is physically located in relation to a site plan, • at which point in the designated disposal route the waste is currently positioned	Thorntons Recycling will have waste management procedures in place for all waste managed at the installation. These procedures will be in place prior to commencement of operations at the installation as part of the facility EMS.	Will be in place
12e	e. only moving drums and other mobile containers between different locations (or loaded for removal off site) under instructions from the appropriate manager, ensuring that the waste tracking system is amended to record these changes (see Section 4.1.4.8).	Thorntons Recycling will have waste management procedures in place for all waste managed at the installation. These procedures will be in place prior to commencement of operations at the installation as part of the facility EMS.	Will be in place
13	Have and apply mixing/blending rules oriented to restrict the types of wastes that can be mixed/blended together in order to avoid increasing pollution emission of down-stream waste treatments. These rules need to consider the type of waste (e.g. *hazardous*, non-hazardous), waste treatment to be applied as well as the following steps that will be carried out to the waste OUT (see Section 4.1.5)	Thorntons Recycling will have waste management procedures in place for all waste managed at the installation. These procedures will be in place prior to commencement of operations at the installation as part of the facility EMS.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
14	Have a segregation and compatibility procedure in place (see Section 4.1.5 and this is also related to BAT number 13 and 24.c), including:		
14a	a. keeping records of the testing, including any reaction giving rise to safety parameters (increase in temperature, generation of gases or raising of pressure); a record of the operating parameters (viscosity change and separation or precipitation of solids) and any other relevant parameters, such as generation of odours (see Sections 4.1.4.13 and 4.1.4.14)	Thorntons Recycling will have waste management procedures in place for all waste managed at the installation. These procedures will be in place prior to commencement of operations at the installation as part of the facility EMS.	Will be in place
14b	b. packing containers of chemicals into separate drums based on their hazard classification. Chemicals which are incompatible (e.g. oxidisers and flammable liquids) should not be stored in the same drum (see Section 4.1.4.6).	There will be no instances where chemicals will be packaged into drums at the facility.	Not applicable
15	Have an approach for improving waste treatment efficiency. This typically includes the finding of suitable indicators to report WT efficiency and a monitoring programme (see Section 4.1.2.4 and this is also related to BAT number 1)	Thorntons Recycling will have waste management procedures in place for all waste managed at the installation. These procedures will be in place prior to commencement of operations at the installation as part of the facility EMS.	Will be in place
16	Produce a structured accident management plan (see Section 4.1.7)	Thorntons Recycling will produce an accident management plan for all operations at the installation. This plan will be produced prior to commencement of operations at the installation and will form part for the facility EMS and OHSAS requirements.	Will be in place
17	Have and properly use an incident diary (see Section 4.1.7 and related to BAT number 1 and to quality management system)	Thorntons Recycling will use an incident diary on site.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
18	Have a noise and vibration management plant in place as part of the EMS (see Section 4.1.8 and this is also related to BAT number 1). For some WT installations, noise and vibration may not be an environmental problem	To be contained within the EMS for the installation	Will be in place
19	Consider any future decommissioning at the design stage. For existing installations and where decommissioning problems are identified, put a programme to minimise these problems in place (see Section 4.1.9 and this is also related to BAT number 1.i).	Decommissioning will be considered fully as part of the design process for the installation. Further details are provided in Volume 2, Chapter 2 of the EIS accompanying this application.	In place
	Utilities and raw material management BAT is to:		
20	Provide a breakdown of the energy consumption and generation (including exporting) by the type of source (i.e. electricity, gas, liquid conventional fuels, solid conventional fuels and waste) (see Section 4.1.3.1 and related to BAT number 1.k). This involves:		
20a	a. reporting the energy consumption information in terms of delivered energy	Annual information pertaining to energy consumption will be contained within the annual environmental reports to be produced for the installation.	Will be in place
20b	b. reporting the energy exported from the installation	No process will be undertaken on site which will result in the production of energy for export from the installation.	Not applicable
20c	c. providing energy flow information (for example, diagrams or energy balances) showing how the energy is used throughout the process.	Will be developed as part of the mechanical and electrical (M&E) design of the facility and will be in place upon commencement of operations	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
21	Continuously increase the energy efficiency of the installation, by (see Section 4.1.3.4):		
21a	a. Developing an energy efficiency plan.	An energy efficiency plan will be developed as part of the annual environmental reports to be produced for the installation.	Will be in place
21b	b. using techniques that reduce energy consumption and thereby reduce both direct (heat and emissions from on-site generation) and indirect (emissions from a remote power station) emissions	Operations at the installation will be undertaken in a manner so as to maintain energy consumption levels at as low a level as possible	Will be in place
21c	c. defining and calculating the specific energy consumption of the activity (or activities), setting key performance indicators on an annual basis (e.g. MWh/tonne of waste processed) (related to BAT number 1.k and 20).	Energy consumption levels of activities carried out on site will be calculated on an annual basis and reported in the annual environmental reports to be produced for the installation.	Will be in place
22	Carry out internal bench marking (e.g. on an annual basis) of raw materials consumption (related to BAT number 1.k). Some applicability limitations have been identified and these are mentioned in Section 4.1.3.5.	Internal bench marking of raw material consumption will be carried out on an annual basis as part of annual environmental reports to be produced for the installation.	Will be in place
23	Explore the options for the use of waste as a raw material for the treatment of other wastes (see Section 4.1.3.5). If waste is used to treat other wastes, then to have a system in place to guarantee that the waste supply is available. If this cannot be guaranteed, a secondary treatment or other raw materials should be in place in order to avoid any unnecessary waiting treatment time (see Section 4.1.2.2)	No instances will occur on site where waste materials will be used to treat other wastes.	Not applicable
	Storage and handling BAT is to:		

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
24	apply the following techniques related to storage (see Section 4.1.4.1):		
24a	a. locating storage areas: • away from watercourses and sensitive perimeters, and • in such a way so as to eliminate or minimise the double handling of wastes within the installation	Thorntons Recycling will have waste storage procedures in place for all incoming waste. These are detailed further in Volume 2, Chapter 2 of the EIS accompanying this application.	Will be in place
24b	b. ensuring that the storage area drainage infrastructure can contain all possible contaminated run-off and that drainage from incompatible wastes cannot come into contact with each other	Thorntons Recycling will have appropriate drainage infrastructure in place across the entire site. Details are provided in Volume 2, Chapter 12 of the EIS accompanying this application.	Will be in place
24c	c. using a dedicated area/store which is equipped with all necessary measures related to the specific risk of the wastes for sorting and repackaging laboratory smalls or similar waste. These wastes are sorted according to their hazard classification, with due consideration for any potential incompatibility problems and then repackaged. After that, they are removed to the appropriate storage area	No laboratory smalls or similar wastes will be accepted at the installation.	Not applicable
24d	d. handling odorous materials in fully enclosed or suitably abated vessels and storing them in enclosed buildings connected to abatement	The proposed waste processing building will be fully enclosed and will operate under negative extraction with captured building air passing through an appropriate abatement system. The MSW and biowaste storage building will furthermore be fully enclosed within the enclosed waste processing building, with dedicated extraction focussed on this area. Refer to Chapter 7 of the EIS provided with this application.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
24e	e. ensuring that all connections between the vessels are capable of being closed via valves. Overflow pipes need to be directed to a contained drainage system (i.e. the relevant bunded area or another vessel)	Design related to pipework and vessels will be completed to ensure potential for closure, overflow etc. in an appropriate manner.	Will be in place
24f	f. having measures available to prevent the building up of sludges higher than a certain level and the emergence of foams that may affect such measures in liquid tanks, e.g. by regularly controlling the tanks, sucking out the sludges for appropriate further treatment and using anti-foaming agents	No sludge material or liquid tanks (other than rainwater and diesel fuel storage tanks) will be present onsite.	Not applicable
24g	g. equipping tanks and vessels with suitable abatement systems when volatile emissions may be generated, together with level meters and alarms. These systems need to be sufficiently robust (able to work if sludge and foam is present) and regularly maintained	No volatile emissions will be generated through storage in tanks.	Not applicable
24h	h. storing organic waste liquid with a low flashpoint under a nitrogen atmosphere to keep it inertised. Each storage tank is put in a waterproof retention area. Gas effluents are collected and treated	No organic liquid wastes will be stored in tanks at the installation.	Not applicable
25	Separately bund the liquid decanting and storage areas using bunds which are impermeable and resistant to the stored materials (see Section 4.1.4.4)	Appropriate bunds will be installed in accordance with relevant guidance relating to vessel storage.	Will be in place
26	Apply the following techniques concerning tank and process pipework labelling (see Section 4.1.4.12):		
26a	a. clearly labelling all vessels with regard to their contents and capacity, and applying a unique identifier. Tanks need to have an appropriately labelled system depending on their use and contents	Thorntons Recycling will have appropriate labelling procedures in place for all relevant vessels.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
26b	b. ensuring that the label differentiates between waste water and process water, combustible liquid and combustible vapour and the direction of flow (i.e. in or outflow)	Thorntons Recycling will have appropriate labelling procedures in place for all relevant vessels.	Will be in place
26c	c. keeping records for all tanks, • detailing the unique identifier; • capacity; • its construction, including materials; • maintenance schedules and inspection results; • fittings; and • the waste types which may be stored/treated in the vessel, including flashpoint limits	Thorntons Recycling will have appropriate record keeping procedures in place for all relevant vessels.	Will be in place
27	Take measures to avoid problems that may be generated from the storage/accumulation of waste. This may conflict with BAT number 23 when waste is used as a reactant (see Section 4.1.4.10).	Thorntons Recycling will have appropriate operating procedures in place for all materials on site to avoid any potential problems.	Will be in place
28	Apply the following techniques when handling waste (see Section 4.1.4.6):		
28a	a. having systems and procedures in place to ensure that wastes are transferred to the appropriate storage safely	Thorntons Recycling will have procedures in place for all waste requiring management at the installation. These procedures will be in place prior to commencement of operations at the installation as part of the facility EMS and OHSAS requirements.	Will be in place
28b	b. having in place a management system for the loading and unloading of waste in the installation, which also takes into consideration any risks that these activities may incur. Some options for this include ticketing systems, supervision by site staff, keys or colour-coded points/hoses or fittings of a specific size	Thorntons Recycling will have waste management procedures in place for all waste managed at the installation. These procedures will be in place prior to commencement of operations at the installation, as part of the facility EMS and OHSAS requirements.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
28c	c. ensuring that a qualified person attends the waste holder site to check the laboratory smalls, the old original waste, waste from an unclear origin or undefined waste (especially if drummed), to classify the substances accordingly and to package into specific containers. In some cases, the individual packages may need to be protected from mechanical damage in the drum with fillers adapted to the packaged waste properties	Thorntons Recycling will have waste management procedures in place for all waste requiring treatment at the installation. These procedures will be in place prior to commencement of operations at the installation. All staff tasked with the identification and the handling of waste will be appropriately trained to identify all and any issues as they arise.	Will be in place
28d	d. ensuring that damaged hoses, valves and connections are not used	Thorntons Recycling will have operational maintenance procedures in place in accordance with OHSAS requirements prior to commencement of operations at the installation.	Will be in place
28e	e. collecting the exhaust gas from vessels and tanks when handling liquid waste		Not applicable
28f	f. unloading solids and sludge in closed areas which are fitted with extractive vent systems linked to abatement equipment when the handled waste can potentially generate emission to air (e.g. odours, dust, VOCs) (see Section 4.1.4.7)	The proposed waste processing building will be fully enclosed and will operate under negative extraction with captured building air passing through an appropriate abatement system. The MSW and biowaste storage building will furthermore be fully enclosed within the enclosed waste processing building, with dedicated extraction focussed on this area. Refer to Chapter 7 of the EIS provided with this application.	Will be in place
28g	g. using a system to ensure the bulking of different batches only takes place with compatibility testing (see Section 4.1.4.7 and 4.1.5 and this is also related to BAT number 13, 14 and 30).	'Bulking' activities to be undertaken on site will be of waste materials of a similar nature with no potential for compatibility issues to arise.	Not applicable

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
29	Ensure that the bulking/mixing to or from packaged waste only takes place under instruction and supervision and is carried out by trained personnel. For certain types of wastes, such a bulking/mixing needs to be carried out under local exhaust ventilation (see Section 4.1.4.8)	'Bulking' activities to be undertaken on site will be of waste materials of a similar nature with no potential for compatibility issues to arise.	Not applicable
30	Ensure that chemical incompatibilities guide the segregation required during storage (see Section 4.1.4.13 and 4.1.4.14 and this is also related to BAT number 14)	Chemical incompatibilities will not arise given the nature of the waste materials being managed on site	Not applicable
31	Apply the following techniques when containerised wastes are handled (see Section 4.1.4.2):		
31a	a. storing of containerised wastes under cover. This can also be applied to any container that is held in storage pending sampling and emptying. Some exceptions on the applicability of this technique related to containers or waste not affected by ambient conditions (e.g. sunlight, temperature, water) have been identified (see Section 4.1.4.2). Covered areas need to have adequate provision for ventilation	All waste material accepted to site will be managed within the fully enclosed waste processing building and/or the bale storage building	Will be in place
31b	b. maintaining the availability and access to storage areas for containers holding substances that are known to be sensitive to heat, light and water, under cover and protected from heat and direct sunlight.	Materials to be managed at the facility will not be sensitive to heat, light and water	Not applicable
	Other common techniques not mentioned above BAT is to:		
32	Perform crushing, shredding and sieving operations in areas fitted with extractive ventilation systems linked to abatement equipment (see Section 4.1.6.1) when handling materials that can generate emission to air (e.g. odours, dust, VOCs).	Any such activities related to waste processing undertaken in the proposed waste processing building will be fully enclosed and will operate under negative extraction with captured building air passing through an appropriate abatement system. The MSW and biowaste	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
		storage building will furthermore be fully enclosed within the enclosed waste processing building, with dedicated extraction focussed on this area. Refer to Chapter 7 of the EIS provided with this application.	
33	Perform crushing/shredding operations (see Sections 4.1.6.1 and 4.6) under full encapsulation and under an inert atmosphere for drums/containers containing flammable or highly volatile substances. This will avoid ignition. The inert atmosphere is to be abated.	The nature of the proposed activities at the facility and the materials to be managed does not warrant such a requirement.	Not applicable
34	Perform washing processes considering:		
34a	(a) Identifying the washed components that may be present in the items to be washed (e.g. solvents).	No washing operation will be undertaken on site	Not applicable
34b	(b) Transferring washings to appropriate storage and then treating them in the same way as the waste from which they were derived.	No washing operation will be undertaken on site	Not applicable
34c	(c) Using treated waste water from the WT plant for washing instead of fresh water. The resultant waste water can then be treated in the WWTP or re-used in the installation.	No washing operation will be undertaken on site	Not applicable
	Air emission treatments To prevent or control the emissions mainly of dust, odours and VOC and some inorganic compounds, BAT is to:		

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
35	Restrict the use of open topped tanks, vessels and pits by:		
35a	(a) not allowing direct venting or discharges to air by linking all the vents to suitable abatement systems when storing materials that can generate emissions to the air (e.g. odours, dust, VOCs) (see Section 4.1.4.5).	No open topped tanks, vessels or pits will be in place on site	Not applicable
35b	(b) keeping the waste or raw materials under cover or in waterproof packaging (see Section 4.1.4.5 and this is also related to BAT number 31.a)	No open topped tanks, vessels or pits will be in place on site	Not applicable
35c	(c) connecting the head space above the settlement tanks (e.g. where oil treatment is a pre-treatment process within a chemical treatment plant) to the overall site exhaust and scrubber units (see Section 4.1.4.1).	No open topped tanks, vessels or pits will be in place on site	Not applicable
36	Use an enclosed system with extraction, or under depression, to a suitable abatement plant. This technique is especially relevant to processes which involve the transfer of volatile liquids, including during tanker charging/discharging (see Section 4.6.1).	The proposed waste processing building will be fully enclosed and will operate under negative extraction with captured building air passing through an appropriate abatement system. The MSW and biowaste storage building will furthermore be fully enclosed within the enclosed waste processing building, with dedicated extraction focussed on this area. Refer to Chapter 7 of the EIS provided with this application.	Will be in place
37	Apply a suitably sized extraction system which can cover the holding tanks, pre-treatment areas, storage tanks, mixing/reaction tanks and the filter press areas, or to have in place a separate system to treat the vent gases from specific tanks (for example, activated carbon filters from tanks holding waste contaminated with solvents) (see Section 4.6.1).	The proposed waste processing building will be fully enclosed and will operate under negative extraction with captured building air passing through an appropriate abatement system. The MSW and biowaste storage building will furthermore be fully enclosed within the enclosed waste processing building, with	Will be in place

<table>
<tr><th>BAT No.</th><th>BAT Description</th><th>Applicability Assessment</th><th>Status of technique at installation</th></tr>
<tr><td></td><td></td><td>dedicated extraction focussed on this area. Refer to Chapter 7 of the EIS provided with this application.</td><td></td></tr>
<tr><td>38</td><td>Correctly operate and maintain the abatement equipment, including the handling and treatment/disposal of spent scrubber media (see Section 4.6.11).</td><td>The odour abatement system will be correctly operated and maintained throughout the operational life of the installation</td><td>Will be in place</td></tr>
<tr><td>39</td><td>Have a scrubber system in place for the major inorganic gaseous releases from those unit operations which have a point discharge from process emissions. Install a secondary scrubber unit to certain pre-treatment systems if the discharge is incompatible, or too concentrated for the main scrubbers (see Section 4.6.11).</td><td>There will be no unit operation undertaken that will have a point discharge from process emissions that will discharge inorganic gaseous releases.</td><td>Not applicable</td></tr>
<tr><td>40</td><td>Have leak detection and repair procedures in place in installations a) handling a large number of piping components and storage and b) compounds that may leak easily and create an environmental problem (e.g. fugitive emissions, soil contamination) (see Section 4.6.2). This may be seen as an element of the EMS (see BAT number 1)</td><td>Facility Q&M procedures will ensure appropriate leak detection and repair of any leaks related to the odour abatement system.</td><td>Will be in place</td></tr>
<tr><td>41</td><td>Reduce air emissions to the following levels by using a suitable combination of preventive and/or abatement techniques (see Section 4.6). The techniques mentioned above in the BAT ‘Air emission treatments’ section (BAT numbers 35-41) also contribute to achieve these values.
<table>
<tr><td>Air parameter</td><td>Emission levels associated to the use of BAT (mg/Nm^3)</td></tr>
<tr><td>VOC</td><td>7 – 20 [1]</td></tr>
<tr><td>PM</td><td>5 – 20</td></tr>
<tr><td colspan="2">[1] For low VOC loads, the higher end of the range can be extended to 50</td></tr>
</table></td><td>The abatement system will reduce air emissions to the appropriate levels. Further details are provided in Volume 2, Chapter 7 of the EIS accompanying this application.</td><td>Will be in place</td></tr>
<tr><td></td><td>Waste water management

BAT is to:</td><td></td><td></td></tr>
</table>

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
42	Reduce the water use and the contamination of water by (see Sections 4.1.3.6 and 4.7.1):		
42a	(a) applying site waterproofing and storage retention methods.	Full hardstanding will be in place across the entire site following construction of the installation, with appropriate surface water attenuation provided.	Will be in place
42b	(b) carrying out regular checks of the tanks and pits especially when they are underground	Facility monitoring procedures and checks will incorporate regular inspections of underground tanks and pits	Will be in place
42c	(c) applying separated water drainage according to the pollution load (roof water, road water, process water).	Separated water drainage will be provided. Further details are provided in Volume 2, Chapter 12 of the EIS accompanying this application	Will be in place
42d	(d) applying a security collection basin.	A specific collection basin is not proposed but appropriate surface water attenuation for the entire site to greenfield rates will be provided.	Not applicable
42e	(e) Performing regular water audits, with the aim of reducing water consumption and preventing water contamination.	Such audits will be undertaken and detail provided as part of the annual environmental reporting requirements	Will be in place
42f	(f) segregating process water from rain water (see Section 4.7.2 and this is also related to BAT number 46)	Rainwater will be collected from the waste processing building roof for use in internal wash-down operations. A separate collection system for wash down water (as foulwater) will be provided.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
43	Have procedures in place to ensure that the effluent specification is suitable for the on-site effluent treatment system or discharge (see Section 4.7.1).	Details of waste water management at the installation are provided in Volume 2, Chapter 12 of the EIS accompanying this application	Will be in place
44	Avoid the effluent by-passing the treatment plant systems (see Section 4.7.1).	Not applicable as the effluent will discharge to sewer.	Not applicable
45	Have in place and operate an enclosure system whereby rainwater falling on the processing areas is collected along with tanker washings, occasional spillages, drum washings, etc. and returned to the processing plant or collected in a combined interceptor (see Section 4.7.1).	No rainwater will fall on processing areas as all processing will occur within fully enclosed buildings	Not applicable
46	Segregate the water collecting systems for potentially more contaminated waters from less contaminated water (see Section 4.7.2).	All water generated from internal building washdown will be collected within the foulwater collection network and considered as being contaminated to the same degree. Further details are provided in Volume 2, Chapter 12 of the EIS accompanying this application	Not applicable
47	Have a full concrete base in the whole treatment area, that falls to internal site drainage systems which lead to storage tanks or to interceptors that can collect rainwater and any spillage. Interceptors with an overflow to sewer usually need automatic monitoring systems, such as pH checks, which can shut down the overflow (see Section 4.1.3.6 and this is also related to BAT number 63).	Details of waste water management at the installation are provided in Volume 2, Chapter 12 of the EIS accompanying this application	Will be in place
48	Collect the rainwater in a special basin for checking, treatment if contaminated and further use (see Section 4.7.1)	Rainwater harvesting will be undertaken on site. Given the proposed use of rainwater in internal building washdown, treatment (in event of contamination) of same will not be necessary. Further details are provided in Volume 2, Chapter 12 of the EIS accompanying this application	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
49	Maximise the re-use of treated waste waters and use of rainwater in the installation (see Section 4.7.1).	Clean stormwater runoff from the roof of the waste processing building will be collected in the rainwater harvesting tank which will be used for wash-down activities at the facility. Further details are provided in Volume 2, Chapter 12 of the EIS accompanying this application.	Will be in place
50	Conduct daily checks on the effluent management system and to maintain a log of all checks carried out, by having a system for monitoring the effluent discharge and sludge quality in place (see Section 4.7.1)	Daily checks of the effluent management system will be carried out in accordance with the EMS which will be produced for the installation in advance of operations.	Will be in place
51	Firstly identify waste waters that may contain • hazardous compounds (e.g. adsorbable organically bound halogens (AOX); • cyanides; • sulphides; • aromatic compounds; • benzene or hydrocarbons (dissolved, emulsified or undissolved); and • metals, such as mercury, cadmium, lead, copper, nickel, chromium, arsenic and zinc) (see Section 4.7.2). Secondly, segregate the previously identified waste water streams on-site and thirdly, specifically treat waste water on-site or off-site.	Waste water emissions will be monitored on site at a specified location on a regular basis. See Attachment F accompanying this application for further details.	Will be in place
52	Ultimately after the application of BAT number 42, select and carry out the appropriate treatment technique for each type of waste water (see Section 4.7.1)	Foulwaters generated on site, which could potentially contain some of the compounds identified in the previous BAT, will be discharged to sewer.	Not applicable
53	Implement measures to increase the reliability with which the required control and abatement performance can be carried out (for example, optimising the precipitation of metals) (see Section 4.7.1)	Such abatement techniques will not be applied at the facility	Not applicable

<table>
<tr><th>BAT No.</th><th>BAT Description</th><th>Applicability Assessment</th><th>Status of technique at installation</th></tr>
<tr><td>54</td><td>Identify the main chemical constituents of the treated effluent (including the make-up of the COD) and to then make an informed assessment of the fate of these chemicals in the environment (see Section 4.7.1 and their applicability restrictions identified)</td><td>Such techniques will not be applied at the facility</td><td>Not applicable</td></tr>
<tr><td>55</td><td>Only discharge the waste water from its storage after the conclusion of all the treatment measures and a subsequent final inspection (see Section 4.7.1)</td><td>Such techniques will not be applied at the facility</td><td>Not applicable</td></tr>
<tr><td>56</td><td>Achieve the following emissions level values before discharge by applying a suitable combination of techniques mentioned in Sections 4.4.2.3 and 4.7. The techniques mentioned above in this section on ‘waste water management’ (BAT number 42 – 55) also contribute to reach these values.
<table>
<tr><th>Water parameter</th><th>Emission values associated with the use of BAT (ppm)</th></tr>
<tr><td>COD</td><td>20 – 120</td></tr>
<tr><td>BOD</td><td>2 – 20</td></tr>
<tr><td>Heavy metals (Cr, Cu, Ni, Pb, Zn)</td><td>0.1 – 1</td></tr>
<tr><td>Highly toxic heavy metals:
As
Hg
Cd
Cr(VI)</td><td>
<0.1
0.01 – 0.05
<0.1 – 0.2
<0.1 – 0.4</td></tr>
</table>
</td><td>Such techniques will not be applied at the facility</td><td>Not applicable</td></tr>
<tr><td></td><td>Management of the process generated residues

BAT is to:</td><td></td><td></td></tr>
<tr><td>57</td><td>Have a residue management plan (see Section 4.8.1) as part of the EMS including:</td><td></td><td></td></tr>
</table>

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
57a	(a) Basic housekeeping techniques (related to BAT number 3).	To be contained within the EMS for the installation which will be developed prior to operational commencement.	Will be in place
57b	(b) Internal bench marking techniques (see Section 4.1.2.8 and this is also related to BAT numbers 1.k and 22).	To be contained within the EMS for the installation which will be developed prior to operational commencement.	Will be in place
58	Maximise the use of re-usable of packaging (drums, containers, IBCs, pallets etc.) (see Section 4.8.1)	Materials will be handled in accordance with details provided in Attachment H accompanying this application for further details.	Will be in place
59	Re-use drums when they are in good working state. In other cases, these are to be sent for appropriate treatment (see Section 4.8.1).	No drums will be utilised in proposed operations.	Not applicable
60	Keep a monitoring inventory of the waste on-site by using records of the amount of wastes received on-site and records of the wastes processed (see Section 4.8.3 and this is also related to BAT number 27)	Thorntons Recycling will have waste management procedures in place for all waste requiring treatment at the installation. These procedures will be in place prior to commencement of operations at the installation.	Will be in place
61	Re-use the waste from one activity/treatment possibly as a feedstock for another (see Section 4.1.2.6 and this is also related to BAT number 23).	The nature of the proposed activities i.e. the production of solid recovered fuel (SRF) from municipal solid waste, results in the wastes accepted at the facility being used as a fuel feedstock in the cement industry.	Will be in place
	Soil contamination To prevent soil contamination, BAT is to:		

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
62	Provide and then maintain the surfaces of operational areas, including applying measures to prevent or quickly clear away leaks and spillages, and ensuring that maintenance of drainage systems and other subsurface structures is carried out (see Section 4.8.2)	Details relating to the maintenance of operational areas and the treatment of leaks and spillages are provided in Volume 2, Chapter 2 of the EIS accompanying this application.	Will be in place
63	Utilise an impermeable base and internal site drainage (see Section 4.1.4.6, 4.7.1 and 4.8.2)	Full hardstanding will be applied across the site. Details relating to site drainage are provided in Volume 2, Chapter 12 of the EIS accompanying this application.	Will be in place
64	Reduce the installation site and minimise the use of underground vessels and pipework (see Section 4.8.2 and this is also related to BAT number 10.f, 25, and 40)	Efforts to minimise the size of the installation and the use of underground vessels and pipework have been incorporated into the design of the installation.	Will be in place
	5.2 BAT for specific types of waste treatments This section presents the BAT elements for each process/activity covered in this document.		
65 – 71	**Biological treatments**	No biological treatments will be undertaken at the site.	Not applicable
72 – 94	**Physico-chemical treatments**	No physico-chemical treatment will be undertaken at the site.	Not applicable
95 – 116	**Recovery of materials from waste**	None of the activities outlined in BAT 95 – 116 will be undertaken onsite.	Not applicable

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
	Preparation of waste to be used as fuel		
	For the preparation of waste to be used as fuel, BAT is to:		
117	Try to have a close relationship with the waste fuel user in order that a proper transfer of the knowledge of the waste fuel composition is carried out (see Section 4.5.1)	Thorntons Recycling currently supplies SRF to the cement industry and maintains close relationship with this sector such that ongoing communication in relation to the quality of the SRF material is undertaken.	Will be in place
118	Have a quality assurance system to guarantee the characteristics of the waste fuel produced (see Section 4.5.1)	Thorntons Recycling maintains (and will maintain) an appropriate quality assurance system for the installation to guarantee the characteristics of the SRF produced	Will be in place
119	Manufacture different type of waste fuels according to the type of user (e.g. cement kilns, different power plants), to the type of furnace (e.g. grate firing, blow feeding) and to the type of waste used to manufacture the waste (e.g. hazardous waste, municipal solid waste) (see Section 4.5.2)	The SRF produced on site will be used as an alternative fuel source in cement kilns and is thus will be produced to the required end user specification.	Will be in place
120	When producing waste fuel from hazardous waste, use activated carbon treatment for low contaminated water and thermal treatment for highly polluted water (see Sections 4.5.6 and 4.7). In this context, thermal treatment relates to any thermal treatment in Section 4.7.6 or incineration which is not covered in this document	No fuel will be produced from hazardous waste material.	Not applicable
121	When producing waste fuel from hazardous waste, ensure correct follow-up of the rules concerning electrostatic and flammability hazards for safety reasons (see Sections 4.1.2.7 and 4.1.7)	No fuel will be produced from hazardous waste material.	Not applicable

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
	For the preparation of solid waste fuels from non-hazardous waste, BAT is to:		
122	Visually inspect the incoming waste to sort out the bulky metallic or non-metallic parts. The purpose is to protect the plant against mechanical destruction (see Section 4.1.1.3 and this is also related to BAT 8.e)	In line with the EMS for the site, incoming waste loads will be visually inspected upon arrival on site and subsequently sorted appropriately prior to feeding the SRF processing line.	Will be in place
123	Use magnetic ferrous and non-ferrous metal separators. The purpose is to protect the pelletisers as well as fulfil the requirements of the final users (see Sections 4.5.3.3 and 4.5.3.4)	Magnetic ferrous and non-ferrous metal separators will be used within the SRF processing line. Refer to Chapter 2 of the EIS for more detail.	Will be in place
124	Make use of the NIR technique for the sorting out of plastics. The purpose is the reduction of organic chlorine and some metals which are part of the plastics (see Section 4.5.3.10)	NIR optical separators for the sorting of plastics will form part of the SRF processing line plant. Refer to Chapter 2 of the EIS for more detail.	Will be in place
125	Use a combination of shredder systems and pelletisers suitable for the preparation of the specified size waste fuel (see Sections 4.5.3.1 and 4.5.3.12)	Shredder systems and pelletisers will be used as part of the SRF processing line. Refer to Chapter 2 of the EIS for more detail.	Will be in place
	For some installations preparing solid waste fuels from source-separated waste streams, the use of some or all of the above-mentioned techniques may not be necessary to comply with BAT (see Section 4.5.3.1)		
	For the preparation of solid waste fuel from hazardous waste, BAT is to:		

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
126	Consider emissions and flammability hazards in case a drying or heating operation is required (see Sections 4.1.2.7 and 4.5.4.1)	No fuel will be produced from hazardous waste material.	Not applicable
127	Consider carrying out the mixing and blending operations in closed areas with appropriate atmosphere control systems (see Sections 4.1.4.5, 4.5.4.1 and 4.6)	No fuel will be produced from hazardous waste material.	Not applicable
128	Use bags filters for the abatement of particulates (see Section 4.6.26)	No fuel will be produced from hazardous waste material.	Not applicable
	For the preparation of liquid waste fuels from hazardous waste, BAT is to:		
129	Use heat-exchange units external to the vessel if heating of the liquid fuel is required (Section 4.5.4.1)	No fuel will be produced from hazardous waste material.	Not applicable
130	Adapt the suspended solid content to ensure the homogeneity of the liquid fuel (see Section 4.5.4.1)	No fuel will be produced from hazardous waste material.	Not applicable

BREF ON BEST AVAILABLE TECHNIQUES FOR ENERGY EFFICIENCY

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
1	BAT is to implement and adhere to an energy efficiency management system (ENEMS) that incorporates, as appropriate to the local circumstances, all of the following features (see Section 2.1. The letters (a), (b), etc. below, correspond those in Section 2.1):		
1a	commitment of top management (commitment of the top management is regarded as a precondition for the successful application of energy efficiency management);	An energy efficiency management system will be included as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
1b	definition of an energy efficiency policy for the installation by top management;	An energy efficiency management system will be included as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
1c	planning and establishing objectives and targets (see BAT 2, 3 and 8) ;	An energy efficiency management system will be included as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
1d	implementation and operation of procedures paying particular attention to: i) structure and responsibility ii) training, awareness and competence (see BAT 13);	An energy efficiency management system will be included as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
	iii) communication iv) employee involvement v) documentation vi) effective control of processes (see BAT 14) vii) maintenance (see BAT 15) viii) emergency preparedness and response ix) safeguarding compliance with energy efficiency-related legislation and agreements (where such agreements exist).		
1e	Benchmarking; the identification and assessment of energy efficiency indicators over time (see BAT 8), and the systematic and regular comparisons with sector, national or regional benchmarks for energy efficiency, where verified data are available (see Sections 2.1(e), 2.16 and BAT 9)	An energy efficiency management system will be included as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
1f	checking performance and taking corrective action paying particular attention to: i) monitoring and measurement (see BAT 16) ii) corrective and preventive action iii) maintenance of records iv) independent (where practicable) internal auditing in order to determine whether or not the energy efficiency management system conforms to planned arrangements and has been properly implemented and maintained (see BAT 4 and 5)	An energy efficiency management system will be included as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
1g	review of the ENEMS and its continuing suitability, adequacy and effectiveness by top management	An energy efficiency management system will be included as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
2	BAT is to continuously minimise the environmental impact of an installation by planning action & investments on an integrated basis and for the short, medium and long term, considering the costs/benefits & cross media effects.	An energy efficiency management system will be included as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
3	BAT is to identify the aspects of an installation that influence EE by means of an audit.	An energy efficiency management system will be included as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
4	When carrying out an audit, BAT is to ensure that the audit identifies the following aspects (See BREF Section 2.11):		
4a	energy use and type in the installation and its component systems and processes;	Thorntons Recycling will ensure that audits of the installation will analyse energy use on site and all potential areas for energy related improvements. Audit procedures will be identified in the energy efficiency management system which will be included as part of the EMS for the installation which will be developed prior to operational commencement produced.	Will be in place
4b	energy-using equipment, and the type and quantity of energy used in the installation;	Thorntons Recycling will ensure that audits of the installation will analyse energy use on site and all potential areas for energy related improvements. Audit procedures will be identified in the energy efficiency management system which will be included as part of the EMS for the installation which will be developed prior to operational commencement produced.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
4c	possibilities to minimise energy use, such as: • controlling/reducing operating times, e.g. switching off when not in use (e.g. see Sections 3.6, 3.7, 3.8, 3.9, 3.11) • ensuring insulation is optimised, e.g. see Sections 3.1.7, 3.2.11 and 3.11.3.7 • optimising utilities, associated systems, processes and equipment (see Chapter 3);	Thorntons Recycling will ensure that audits of the installation will analyse energy use on site and all potential areas for energy related improvements.	Will be in place
4d	possibilities to use alternative sources or use of energy that is more efficient, in particular energy surplus from other processes/ systems, see Section 3.3;	Thorntons Recycling will ensure that audits of the installation will analyse energy use on site and all potential areas for energy related improvements.	Will be in place
4e	possibilities to apply energy surplus to other processes and/or systems, see Section 3.3;	Thorntons Recycling will ensure that audits of the installation will analyse energy use on site and all potential areas for energy related improvements.	Will be in place
4f	possibilities to upgrade heat quality (see Section 3.3.).	Thorntons Recycling will ensure that audits of the installation will analyse energy use on site and all potential areas for energy related improvements	Will be in place
5	BAT is to use appropriate tools/methods to identify/quantify energy optimisation, e.g. models databases & balances; techniques such as pinch technology, thermoeconomics; estimates & calculations.	Such techniques will be use to inform the energy efficiency management system to be developed.	Will be in place
6	BAT is to identify opportunities to optimise energy recovery within and between systems at the installation, including 3rd parties as per BREF 3.2-3.4	Thorntons Recycling will outline procedures for optimising energy recovery on site as part of the EMS for the installation which will be produced prior to its construction	Will be in place
7	BAT is to Optimise EE through a systems approach to energy management.	Thorntons Recycling will outline procedures for optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
8	BAT is to establish EE indicators by carrying out all of the following: to be developed as per section 4.2.2.4		
8a	identifying suitable energy efficiency indicators for the installation, and where necessary, individual processes, systems and/or units, and measure their change over time or after the implementation of energy efficiency measures.	Thorntons Recycling will outline procedures for optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
8b	identifying and recording appropriate boundaries associated with the indicators.	Thorntons Recycling will outline procedures for optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
8c	identifying and recording factors that can cause variation in the energy efficiency of the relevant process, systems and/or units.	Thorntons Recycling will outline procedures for optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
9	BAT is to carry out sectoral/regional/national benchmarking.	It is unlikely to be possible to undertake sectoral, regional or national benchmarking on the energy performance of the proposed development versus other facilities – however, Thorntons Recycling will benchmark the performance of the proposed development against that of other waste management facilities.	Not applicable
10	BAT is to optimise EE when planning a new installation, unit, system or significant upgrade by considering the list in 4.2.3:		

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
10a	the energy efficient design (EED) should be initiated at the early stages of the conceptual design/basic design phase	Thorntons Recycling will ensure the adoption of energy efficient design in all items of site energy consumption, particularly facility processing plant, as large energy consuming units.	Will be in place
10b	the development and/or selection of energy efficient technologies	Thorntons Recycling will ensure the adoption of energy efficient design in all items of site energy consumption, particularly facility processing plant, as large energy consuming units.	Will be in place
10c	additional data collection may need to be carried out to supplement existing data or fill gaps in knowledge	Thorntons Recycling will ensure the adoption of energy efficient design in all items of site energy consumption, particularly facility processing plant, as large energy consuming units.	Will be in place
10d	the EED work should be carried out by an energy expert	Thorntons Recycling will ensure the adoption of energy efficient design in all items of site energy consumption, particularly facility processing plant, as large energy consuming units.	Will be in place
10e	the initial mapping of energy consumption should also address which parties in the project organisations influence the future energy consumption, and should optimise EED of the future plant with them.	Thorntons Recycling will ensure the adoption of energy efficient design in all items of site energy consumption, particularly facility processing plant, as large energy consuming units.	Will be in place
11	Optimise EE/Energy recovery between systems/processes/parties at installations.	Thorntons Recycling will ensure the adoption of energy efficient design in all items of site energy consumption, particularly facility processing plant, as large energy consuming units.	Will be in place
12	Maintain impetus of EE initiatives as per list	Outcomes of energy efficiency audits will form a central part of any corrective actions, improvements or changes to process and procedures in place at the proposed development site.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
13	Maintain expertise in EE/energy using systems through recruitment/training; use of specialist staff/systems/functions; resource sharing.	Thorntons Recycling will adopt appropriate resources through training, outsourcing etc. to ensure the provision of energy efficiency expertise.	Will be in place
14	Implement effective process control through:		
14a	having systems in place to ensure that procedures are known, understood and complied with.	Thorntons Recycling will outline procedures for optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
14b	ensuring that the key performance parameters are identified, optimised for energy efficiency and monitored.	Thorntons Recycling will outline procedures for optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
14c	documenting or recording these parameters	Thorntons Recycling will outline procedures for optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
15	Carry out maintenance to optimise EE through measures specified in 4.2.8.		
15a	clearly allocating responsibility for the planning and execution of maintenance.	Thorntons Recycling will outline procedures for maintaining and optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
15b	establishing a structured programme for maintenance based on technical descriptions of the equipment, norms, etc. as well as any equipment failures and consequences. Some maintenance activities may be best scheduled for plant shutdown periods.	Thorntons Recycling will outline procedures for maintaining and optimising energy efficiency on site as part of the EMS for the installation which will be produced prior to its construction	Will be in place
15c	supporting the maintenance programme by appropriate record keeping systems and diagnostic testing.	Thorntons Recycling will outline procedures for maintaining and optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
15d	identifying from routine maintenance, breakdowns and/or abnormalities possible losses in energy efficiency, or where energy efficiency could be improved	Thorntons Recycling will outline procedures for maintaining and optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
15e	identifying leaks, broken equipment, worn bearings, etc. that affect or control energy usage, and rectifying them at the earliest opportunity	Thorntons Recycling will outline procedures for maintaining and optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
16	Establish & maintain documented procedures to measure characteristics of operations with a significant impact on EE.	Thorntons Recycling will outline procedures for maintaining and optimising energy efficiency on site as part of the EMS for the installation which will be developed prior to operational commencement.	Will be in place
17	BAT is to optimise EE of combustion by related techniques such as: i) Advanced computer control of combustion conditions. ii) reduced excess air. iii) pre-heating of fuel gas. iv) pre-heating of combustion air.	No combustion related activities will be undertaken onsite	Not applicable
18	BAT for steam systems is to optimise EE by using techniques such as: those measures listed in 4.2 in regard to design, operation/control, generation and distribution, recovery of condensate.	No steam systems will be utilised onsite	Not applicable

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
19	Maintain heat exchanger efficiency by monitoring efficiency & preventing/removing fouling.	No heat exchangers will be utilised onsite	Not applicable
20	BAT is to seek possibilities for cogeneration inside and /or outside the installation (with a third party).	No co-generation will be undertaken onsite	Not applicable
21	Increase power factor according to local power distributor requirements:		
21a	Installing capacitors in the AC circuits to decrease the magnitude of reactive power	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
21b	Minimising the operation of idling or lightly loaded motors.	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
21c	Avoiding the operation of equipment above its rated voltage.	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
21d	When replacing motors, using energy efficient motors.	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
22	Check for harmonics & apply filters if required.	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
23	Optimise various power supply efficiency measures:		
23a	Ensure power cables have the correct dimensions for the power demand.	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
23b	Keep online transformer(s) operating at a load above 40 – 50 % of the rated power.	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
23c	Use high efficiency/low loss transformers.	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
24	Optimise electric motors as per section 4.3.6a:		
24a	Using energy efficient motors (EEM).	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
24b	Proper motor sizing	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
24c	Installing variable speed drives (VSD)	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
24d	Installing high efficiency transmission/reducers	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
24e	Use direct coupling where possible, synchronous belts or cogged V-belts in place of V belts and helical gears in place of worm gears.	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
24f	Energy efficient motor repair (EEMR) or replacement with an EEM.	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
24g	Rewinding: avoid rewinding and replace with an EEM, or use a certified rewinding contractor (EEMR).	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
24h	Power quality control	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place

BAT No.	BAT Description	Applicability Assessment	Status of technique at installation
24i	Integrate lubrication, adjustments and tuning into system operation and maintenance.	Thorntons Recycling will ensure the appropriate electrical design of the facilities in adherence with this BAT during the design stage.	Will be in place
25	Optimise compressed air systems (CAS) as per table 4.6.	Thorntons Recycling will ensure the appropriate design of the facilities in adherence with this BAT during the design stage.	Will be in place
26	Optimise pumping systems as per 4.3.8	Thorntons Recycling will ensure the appropriate design of the facilities in adherence with this BAT during the design stage.	Will be in place
27	Optimise HVAC systems as per 4.3.9	Thorntons Recycling will ensure the appropriate design of the facilities in adherence with this BAT during the design stage, if applicable	Not applicable
28	Optimise lighting systems as per 4.3.10.	Thorntons Recycling will ensure the appropriate design of the facilities in adherence with this BAT during the design stage.	Will be in place
29	BAT is to optimise drying, separation and concentration processes by using techniques such as those in Table 4.10 according to applicability, and to seek opportunities to use mechanical separation in conjunction with thermal processes.	Relevant activities/techniques outlined in table 4.10 will not be applicable to facility operations.	Not applicable

REF ON MONITORING OF EMISSIONS FROM IED-INSTALLATIONS

The following table identifies some of the main BAT related information within the REF document on the monitoring of emissions from IED-installations which has been deemed to be directly relevant to the proposed facility.

Section of REF doc.	BAT related general principle of monitoring	Applicability Assessment	Status of technique at installation
4.2	'Steps in the data production chain' – The production of reliable monitoring data should arise from the following of a number of sequential, accurate steps:		
4.2.2	'Sampling' – Sampling should comply with two requirements: 1. A representative sample in time and space 2. Sampling should be carried out with no change in the composition of the sample The following information should be considered as part of the sampling plan: • The location where the samples are taken • The frequency at which the samples are taken • The sampling method and/or frequency • The type of sampling • The size of individual samples • The type of sample • The personnel involved To improve reliability and traceability, detailed information should be included on the sample label.	A detailed sampling procedure will be in place for the collection of samples by Thorntons Recycling contracted personnel. This plan will be followed for the collection of all samples at the site and will be developed as part of the facility EMS.	Will be in place

Section of REF doc.	BAT related general principle of monitoring	Applicability Assessment	Status of technique at installation
4.2.3	'Sample storage, transport and preservation' – pre-treatment may include keeping samples in darkness, at a specific temperature and not exceeding a maximum time prior to analysis.	Pre-treatment will be carried out for all samples that it is required for.	Will be in place
4.2.5	'Sample analysis' – selection of correct analysis method, close co-operation between sampling personnel and external laboratory analysts	Correct analysis methods will be identified and selected. All samples will be analysed appropriately and accurately by Thorntons Recycling contracted personnel/facilities that are fully accredited.	Will be in place
4.2.6	'Data processing'	All collected data will be processed and analysed by Thorntons Recycling contracted personnel.	Will be in place
4.2.7	'Reporting'	Baseline, quarterly and annual environmental reporting relating to monitoring carried out at the site will be completed by Thorntons Recycling contracted personnel.	Will be in place
4.3	'The data production chain for different media' – Issues relevant to specific media:		
4.3.1	'Air emissions'	Air emissions monitoring will be undertaken in accordance with the requirements of the BAT related principle.	Will be in place
4.3.2	'Waste water'	Waste water emissions monitoring will be undertaken in accordance with the requirements of the BAT related principle.	Will be in place

Section of REF doc.	BAT related general principle of monitoring	Applicability Assessment	Status of technique at installation
4.3.3	'Wastes' – Operators should record and retain the following information relating to waste received or produced at a facility: • Its composition • The quantity produced • Its disposal routes • The amount sent to recovery • Registrations/licences for carriers and waste disposal sites	All information relating to wastes entering and exiting the proposed facility will be recorded and retained in accordance with the requirements of this BAT related principle.	Will be in place
5.1	'Direct measurements' – monitoring techniques for direct measurements can be divided mainly into two main types: 1. Continuous monitoring 2. Discontinuous monitoring	Direct monitoring measurements will be taken on site in accordance with the requirements of this BAT related principle and in accordance with licence requirements.	Will be in place
6	'Compliance assessment' – may include an assessment of compliance with the relevant ELV	All monitoring results will be compared with applicable relevant ELVs to determine if they are compliant or non-compliant in accordance with the requirements of this BAT related principle.	Will be in place
7	'Reporting of monitoring results' – good practice takes consideration of the following: • requirements and audiences for the report • responsibilities for producing the report • scope of the report • type of report • good reporting practices • quality considerations	All reporting of monitoring results will be carried out in line with good practice, taking into consideration all of the elements listed in Section 7 of the REF document on the monitoring of emissions from IED-installations.	Will be in place
8	'Cost of emission monitoring' – certain actions may be applied to improve the cost-effectiveness of emission monitoring	Actions will be taken to improve the cost effectiveness of the emission monitoring in accordance with the requirements of this BAT related principle	Will be in place

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.

Supporting information should form **Attachment Nº J.**

SECTION K: REMEDIATION, DECOMMISSIONING, RESTORATION & 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.

There is an explicit requirement in EU and Irish law for financial provision for landfills and extractive waste facilities. For new activities subject to the requirements of the Landfill Directive (1999/31/EC) and the Extractive Waste Directive (2006/21/EC) that are not already licensed by the Agency, state whether the following have been prepared:

- an Environmental Liabilities Risk Assessment (ELRA);
- a Closure, Restoration and Aftercare Management Plan (CRAMP); and
- a proposal for Financial Provision that covers all liabilities identified in the ELRA and CRAMP.

Regard should be had by applicants to relevant Agency guidance on these matters.

Copies of any relevant documents and any supporting information should be included as Attachment No. K.

The Agency may prioritise other sectors (e.g. contaminated land, risk of waste facility closure liabilities, risk based on Seveso classification) and require the preparation of a proposal for financial provision before making a decision on a licence application. Applicants are advised to discuss the requirement for financial provision with the Agency prior to making an application.

Supporting information should be included as **Attachment No. K.**

SECTION L: STATUTORY REQUIREMENTS

Indicate how the requirements of section 83(5)(*a*)(i) to (v) and (vii) to (xa) of the Act of 1992 shall be met, having regard, where appropriate, to any relevant specification issued by the Agency under section 5(3)(*b*) of that Act or any applicable best available techniques (BAT) conclusions adopted in accordance with Article 13(5) of the Industrial Emissions Directive and the reasons for the selection of the arrangements proposed.

Indicate whether or not the activity is carried out, or may be carried out, or is located such that it is liable to have an adverse effect on -
(a) a site placed on a list in accordance with Part 3 of S.I. 477 of 2011, or
(b) a site where consultation has been initiated in accordance with Article 5 of the EU Habitats Directive (92/43/EEC).

Undertake a screening for Appropriate Assessment and state whether the activity, individually or in combination with other plans or projects, is likely to have a significant effect on a European Site(s), in view of best scientific knowledge and the conservation objectives of the site(s). Where it cannot be excluded, on the basis of objective scientific information, following screening for Appropriate Assessment, that an activity, either individually or in combination with other plans or projects, will have a significant effect on a European Site, provide a Natura Impact Statement, as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations (S.I. No. 477 of 2011). Where based on the screening it is considered that an Appropriate Assessment is not required, provide a reasoned response.

Indicate whether or not the activity is liable to have an adverse effect on water quality in light of the European Communities Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009).

Indicate whether or not the activity is liable to have an adverse effect on water quality in light of the European Communities Environmental Objectives (Ground Water) Regulations 2010 (S.I. No. 9 of 2010).

Indicate whether any of the substances specified in the Schedule of the EPA (Industrial Emissions)(Licensing) 2013, S.I. No. 137 of 2013, are discharged by the activity to the relevant medium.

Indicate if the best environmental practices are in place for control of diffuse emissions from the installation as set out in the following legislation:

(a) a BAT Conclusions Implementing Decision published by the EC.

(b) a specification prepared by the Agency in accordance with Section 5 of the *Environmental Protection Agency Act 1992* as amended;

(c) the *Urban Waste Water Treatment Regulations 2001 (S.I. No. 254 of 2001)* as amended by the *Urban Waste Water Treatment (Amendment) Regulations 2004 (S.I. No. 440 of 2004)* or any future amendment thereof;

(d) the *European Communities (Good Agricultural Practice for Protection of Waters) Regulations 20 (S.I. No. 610 of 2010)* or any future amendment thereof;

(e) the *Local Government (Water Pollution) Act, 1977 (Control of Cadmium Discharges) Regulations 1985 (S.I. No. 294 of 1985)*;

(f) the *Local Government (Water Pollution) Act, 1977 (Control of Hexachlorocyclohexane and Mercury Discharges) Regulations 1986 (S.I. No. 55 of 1986)*;

(g) the *Local Government (Water Pollution) Acts, 1977 and 1990 (Control of Carbon Tetrachloride, DDT and Pentachlorophenol Discharges) Regulations 1994 (S.I. No. 43 of 1994)*; and,

(h) measures or controls identified in a pollution reduction plan for the river basin district prepared in accordance with Part V of the *EC Environmental Objectives (Surface Waters) Regulations 2009 S.I. No. 272 of 2009* for the reduction of pollution by priority substances or the ceasing or phasing out of emissions, discharges and losses of priority hazardous substances.

Supporting information should be included as **Attachment № L** with reference to where the information can be found in the application.

SECTION M: DECLARATION

Declaration

I hereby make application for a licence / revised licence, pursuant to the provisions of the Environmental Protection Agency Act, 1992, as amended, 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 public inspection 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 or any person acting on the Applicant's behalf.

Signed by: _____ **Date:** 10th March 2017
(on behalf of the organisation)

Print signature name: GARY BRADY

Position in organisation: COMPANY SECRETARY

Company stamp or seal:

ANNEX 1: TABLES / ATTACHMENTS

TABLE D.2(i) Waste Acceptance (type and quantities)

EWC Codes	EWC Waste Description	Waste type	Tonnes per annum (existing)	Tonnes per annum (proposed)
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04	Waste Wood & Green Waste	N/A	(up to) 20,000
03 01 99	Wastes not otherwise specified			
15 01 03	Wooden packaging			
17 02 01	Wood			
19 12 07	Wood other than that mentioned in 19 12 06			
20 01 38	Wood other than that mentioned in 20 01 37			
20 01 08	Biodegradable kitchen and canteen waste	Source separated biowaste	N/A	(up to) 30,000
20 03 01	Mixed municipal waste	Residual MSW	N/A	(up to) 120,000
19 12 10	Combustible waste (refuse derived fuel)			
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11			

TABLE D.3(III) LINER SYSTEM

Not Applicable	y/n
Provide information in Attachment D.3 to fulfil Annex 1 of the Landfill Directive	
Is the type of liner system specified?	
Has a Quality Control Plan been specified?	
Has a Quality Assurance Plan been specified?	
Has independent, third-party supervision, testing and controls been specified?	
Have basal gradients for all cells and access ramps to the cells been designed?	
Has a leak detection system been specified?	

TABLE D.3(IV) LEACHATE MANAGEMENT ARRANGEMENTS

Not Applicable	y/n
Is there a Leachate Management Plan?	
Have annual quantities of leachate been calculated?	
Has the total quantity of leachate been calculated?	
Has the size of the cells been specified taking account of the water balance calculations?	
Has a leachate collection system been specified?	
Has a leachate storage system been specified?	
Has a system for monitoring the level of leachate in the waste been designed?	
Is leachate recirculation proposed/practised?	
Has leachate treatment on-site been specified?	
Has leachate removal been specified?	

Table D.3(v)a. Landfill Gas Management

Not Applicable	y/n
Is there a Landfill Gas Management Plan?	
Is there a passive venting system?	
Does the passive system cover all of the filled area?	
Have gas alarm systems been installed in the site buildings?	
Have measures been installed to prevent landfill gas migration (e.g. barriers)?	
Has a time-scale been proposed for the installation of landfill gas infrastructure?	
Is gas flaring undertaken at the site?	
Is there an active (i.e., pumped) landfill gas extraction system?	
Does the active system cover all of the filled area?	
Is landfill gas used to generate energy at the site?	
Have emissions from the flarestack and utilisation plant been assessed for source, composition, quantity and level and rate? See section F of the application form for requirements.	
Has a maintenance programme for the control system been specified?	
Has a condensate removal system been designed?	

Table D.3(v)b Landfill Gas Monitoring for existing landfill gas flares and utilisation plants

Not Applicable

Parameter	Concentration (mg/Nm^3)	Frequency of Analysis	Method of Analysis
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 D.3(v)c Landfill Gas Monitoring

Not Applicable

Parameter	Proposed Frequency of Analysis		Method of Analysis
	Gas boreholes, vents, wells and perimeter locations	Installation Office	
Methane (CH_4) % v/v			
Carbon Dioxide (CO_2) % v/v			
Oxygen (O_2) % v/v			
Atmospheric Pressure			
Temperature			

Table D.3(v)d Landfill Gas Infrastructure

Equipment	Monitoring Frequency	Monitoring Action
Gas Collection System		
Gas Control System		

Table D.3(vi) Capping System

Not Applicable	y/n
Has the daily cover been specified?	
Has the intermediate cover been specified?	
Has the temporary capping been specified?	
Has the Capping System been designed and does it meet the requirements of the Landfill Directive Annex 1 (3.3)?	
Does the Capping System include a flexible membrane liner?	
Have all capping materials been specified?	
Has a Method Statement for construction been produced?	
Has a Quality Control Plan been produced?	
Has a Quality Assurance Plan been produced?	
Has a programme for monitoring landfill stability been developed?	
Has a programme for monitoring landfill settlement been developed?	

Table E.1 (i) BOILER EMISSIONS TO ATMOSPHERE (1 Page for each emission point) **NOT APPLICABLE**

Emission Point:

Emission Point Ref. №:		
Location:		
Grid Ref. (12 digit, 6E,6N):		
Vent Details	Diameter:	Height above Ground(m):
Date of commencement of emission:		

Characteristics of Emission:

Boiler rating Steam Output: Thermal Input:			kg/hr MW
Boiler fuel Type: Maximum rate at which fuel is burned % sulphur content:			kg/hr
NOx			mg/Nm^3 0°C. 3% O_2(Liquid or Gas), 6% O_2(Solid Fuel)
Maximum volume* of emission			m^3/hr 0°C, 3 % O_2 (liquid or gas), 6 % O_2 (solid fuel)
Minimum efflux velocity			m.sec^{-1}
Temperature	°C(max)	°C(min)	°C(avg)

* Volume flow limits for emissions to atmosphere shall be based on Normal conditions of temperature and pressure, (i.e. 0°C,101.3kPa), dry gas; 3% oxygen for liquid and gas fuels; 6% oxygen for solid fuels.

(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. №:	O1
Source of Emission:	ODOUR ABATEMENT PLANT
Location:	NORTH FASCADE OF WASTE PROCESSING BUILDING, FROM STACK
Grid Ref. (12 digit, 6E,6N):	710373 E, 740807 N
Vent Details Diameter: Height above Ground(m):	 1.3 M DIAMETER 20 M ABOVE GROUND
Date of commencement:	

Characteristics of Emission:

(i) Volume to be emitted: 40,000 nm3/hr			
Average/day	Nm^3/d	Maximum/day	960,000 Nm^3/d
Maximum rate/hour	40,000 Nm^3/h	Min efflux velocity	8.7m.sec^{-1}
(ii) Other factors			
Temperature	°C(max) AMBIENT	°C(min) AMBIENT	°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)	60 min/hr 24 hr/day 365 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
ODOUR		2,000 – 2,500 OU_E/M^3			Treatment in an odour control unit likely comprising two carbon adsorbers, a pulse jet filter, exhaust fan(s), 1 no. exhaust stack of 20m, relevant ductwork and a single control panel.		700 OU_E/M^3				

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

TABLE E.1(iv): EMISSIONS TO ATMOSPHERE - Minor atmospheric emissions

NOT APPLICABLE

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°C101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

TABLE E.1(v): EMISSIONS TO ATMOSPHERE – Fugitive and Potential atmospheric emissions

Emission point ref. no. (as per flow diagram)	Description	Malfunction which could cause an emission	Emission details (Potential max. emissions)[1]		
			Material	mg/Nm^3	kg/hour
	Potential fugitive odour emission	Aeration system of odour control unit malfunction, coupled with roller shutter door malfunction to create a prolonged period for potential emission of fugitive emissions from waste reception and processing building			

[1] Estimate the potential maximum emission for each malfunction identified.

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

Emission Point:

Emission Point Ref. №:	SW 1
Source of Emission:	SURFACEWATER RUNOFF FROM FACILITY FOOTPRINT, VIA ATTENUATION SYSTEM AND CLASS 1 RETENTION INTERCEPTOR
Location of discharge :	CONNECTION POINT TO WIDER BUSINESS PARK NETWORK ON WESTERN FLANK OF SITE
Grid Ref. (12 digit, 6E,6N):	710248E, 740812N
Name of receiving waters and water body code:	BACHELORS STREAM (TRIBUTARY OF THE TOLKA RIVER (IE_EA_09_1868)
Flow rate in receiving waters:	NOT AVAILABLE $m^3.sec^{-1}$ Dry Weather Flow NOT AVAILABLE $m^3.sec^{-1}$ 95%ile flow
Available assimilative capacity:	NOT AVAILABLE kg/day

Emission Details:

(i) Volume to be emitted			
Normal/day	m^3	Maximum/day	310 m^3
Maximum rate/hour	12.93 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)	60 min/hr 24 hr/day 365 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	
BOD COD Suspended solids pH Temperature Mineral Oil Conductivity									

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

Emission Point:

Emission Point Ref. №:	SE1
Location of connection to sewer:	CONNECTION POINT TO WIDER BUSINESS PARK NETWORK ON WESTERN FLANK OF SITE
Grid Ref. (12 digit, 6E,6N):	710246E, 740810 N
Name of sewage undertaker:	Irish Water

Emission Details:

(i) Volume to be emitted			
Normal/day	2 - 3 m^3	Maximum/day	8.72 m^3
Maximum rate/hour	2.03 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)	60 min/hr 24 hr/day 365 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	
BOD						5,000	50		
COD						10,000	100		
Ammoniacal Nitrogen						70	.7		
Suspended solids						2,000	20		
Sulphate as (SO4)						1,000	10		
pH						6 – 10	-		
Temperature						42	-		
Detergents						100	1.0		
Fats, Oils & Greases						100	1.0		
Phosphates (as P)						100	1.0		

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

NOT APPLICABLE– THERE WILL BE NO EMISSIONS TO GROUND

Emission Point or Area:

Emission Point/Area Ref. Nº:	
Emission Pathway: (borehole, well, percolation area, soakaway, landspreading, etc.)	
Location :	
Grid Ref. (12 digit, 6E,6N):	
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.4(ii): EMISSIONS TO GROUND - Characteristics of the emission (1 table per emission point)

Emission point/area reference number:_____

Parameter	Prior to treatment				As discharged				% Efficiency
	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	

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[2]
				31.5	63	125	250	500	1K	2K	4K	8K		
Wheeled loader (loading hopper)	N1, N2				84.8	88.9	89.4	94.8	98	97.2	93	84.9		
Wheeled loader (loading lorry)	N1, N2				93.8	95.9	102.4	101.8	104	103.2	100	88.9		
Telescopic handler	N1, N2				80.8	84.9	85.4	89.8	106	95.2	83	73.9		
Articulated dump truck (tipping fill)	N1, N2				81.8	87.9	92.4	94.8	97	95.2	92	84.9		
Lorry*	N1, N2				100.8	93.9	100.4	100.8	106	103.2	100	92.9		
Primary Shredding unit	N1, N2		88 ± 3 dB(A) @ 1 m											
IFE Waste Screen (SM2400 x 7000)*	N1, N2		80 dB(A) @ 1 m											
Eddy Current Separator*	N1, N2		76 dB(A) @ 1 m											
Secondary Shredder (Power Komet 2800)*	N1, N2		98 dB(A) @ 1 m											

1. For items of plant, sound power levels may be used.
2. Periods of emission should state if the plant item in question operates on a continuous or intermittent basis. If intermittent then further details of the hours of operation and any potential impulsive components associated with the source should be clearly identified.

TABLE F.1(i): ABATEMENT / TREATMENT CONTROL

Emission point reference number: *O1*

Control[1] parameter	Monitoring to be carried out[2]	Equipment [3]	Equipment back-up
Odour	Olfactometric measurement & dispersion modelling	Odour control unit likely comprising two carbon adsorbers, a pulse jet filter, exhaust fan(s), 1 no. exhaust stack of 20m, relevant ductwork and a single control panel.	

[1] List the operating parameters of the treatment / abatement system which control its function.
[2] List the monitoring of the control parameter to be carried out.
[3] List the equipment necessary for the proper function of the abatement / treatment system.

TABLE F.2(i) : EMISSIONS MONITORING AND SAMPLING POINTS (1 table per monitoring point)

Emission Point Reference No. : OM1

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling method	Analysis method/ technique
Odour	Annually	To be confirmed	Static sampling method - air samples collected in Nalophan bags using a vacuum sampling device	Olfactometric measurement & dispersion modelling

Emission Point Reference No. : SW1M

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling method	Analysis method/ technique
BOD	Quarterly	Via accessible manhole	For laboratory parameters, manual sampling– direct to bottlewear. For in-situ parameters, use of hand held meters.	Standard Methods
COD	Quarterly	Via accessible manhole		Standard Methods
Suspended solids	Quarterly	Via accessible manhole		Standard Methods
pH	Quarterly	Via accessible manhole		Electrometry
Temperature	Quarterly	Via accessible manhole		Temperature Probe
Mineral Oil	Quarterly	Via accessible manhole		Standard Methods
Conductivity	Quarterly	Via accessible manhole		Electrometry

Emission Point Reference No. : SE1M

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling method	Analysis method/ technique
BOD	Quarterly	Via accessible manhole	For laboratory parameters, manual sampling– direct to bottlewear. For in-situ parameters, use of hand held meters.	Standard Methods
COD	Quarterly	Via accessible manhole		Standard Methods
Ammoniacal Nitrogen	Quarterly	Via accessible manhole		Standard Methods
Suspended solids	Quarterly	Via accessible manhole		Standard Methods
Sulphate as (SO4)	Quarterly	Via accessible manhole		Standard Methods
pH	Quarterly	Via accessible manhole		Electrometry
Temperature	Quarterly	Via accessible manhole		Temperature Probe
Detergents	Quarterly	Via accessible manhole		Standard Methods
Fats, Oils & Greases	Quarterly	Via accessible manhole		Standard Methods
Phosphates (as P)	Quarterly	Via accessible manhole		Standard Methods

TABLE F.2(ii): AMBIENT ENVIRONMENT MONITORING AND SAMPLING POINTS (1 table per monitoring point)

Monitoring Point Reference No: D1, D2

Parameter	Monitoring frequency	Accessibility of Sampling point	Sampling method	Analysis method / technique
Dust	3 times per annum	Via manually erected dust pots	Standard method VDI2119	Standard method VDI2119

Table G.1(i) 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	Hazard Statement [4]
1	Diesel fuel	068334-30-5	Xn, N	5,000	15,000	Fuelling of site machinery (loading shovels, diesel plant)	R40, R51/53	S2, S36/37, S61	H226, H304, H315, H332, H351, H373, H411
2	K-Othrine	52918-63-5 57-55-6 50-00-0	T, N	0	0.1	Insecticide	R23/24/25, R34, R40 R43, R50/53		
3	Raco Grain	56073-07-5	T, N, T+	0	0.1	Rat Poison	R28, R48/25, R50/53 R83		
4	Raco Paste	56073-07-5	T, N, T+	0	0.1	Rat Poison	R28, R48/25, R50/53 R83		

Notes: 1. In cases where a material comprises a number of distinct and available dangerous substances, please give details for each component substance.
2. Article 2(2) of S.I. No. 116/2003.
3. Schedules 9 and 10 of S.I. No. 62/2004 (as amended by S.I. No. 271/2008)
4. EC Regulation 1272/2008 (Chemicals Act 2008 (13 of 2008) and 2010)

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

Ref. Nº or Code	Material / Substance	Odour			Pollutants (Tick and specify Group / Family Number)				Controlled Substances	Relevant hazardous substance (3)
		Odourous Yes/No	Description	Threshold µg/m³	EC EO (Surface Waters) Regulations 2009		EC EO Groundwater) Regulations 2010		REACH SVHC(2)	y / n
					Specific pollutants	Priority (hazardous) substances	Hazardous[1]	Non-hazardous[1]		
	Diesel	Yes	Hydrocarbon		Yes	Yes	Yes			
	K-Othrine	Yes	Characteristic		No	No	Yes			
	Raco Grain	Yes	Characteristic		No	No				
	Raco - Paste	Yes	Characteristic		No	No				

Note 1: The EPA Classification of Hazardous and Non-Hazardous Substances in Groundwater, December 2010.

Note 2: Where relevant, specify whether the substance is on the Authorisation List (Annex XIV Regulation (EC) No 1907/2006 as amended) or Restriction List (Annex XVII Regulation (EC) No 1907/2006 as amended). Also, indicate whether the use has been authorised or exempted in accordance with Regulation (EC) No 1907/2006 as amended.

Note 3: Relevant hazardous substances are those substances or mixtures defined within Article 3 of Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures which, as a result of their hazardousness, mobility, persistence and biodegradability (as well as other characteristics), are capable of contaminating soil or groundwater.

TABLE H.3(i): Generation of waste at the installation and its management

REFER TO ATTACHMENT H3

Waste description	EWC Code (use asterisk to indicate whether hazardous waste or not)	Category per Animal By-products Regulation 1069/2009	Source of waste	Quantity generated (tonnes per month)	Location of recovery of disposal (on-site, off-site, exported)	Method of recovery or disposal (e.g. recycling, energy recovery, other incineration, landfill)

Table I.2(i) SURFACE WATER QUALITY

NOT APPLICABLE – NO BASELINE SURFACE WATER MONITORING CARRIED OUT AT SITE – REFER TO ATTACHMENT I.2 FOR WATER QUALITY IN GENERAL SURROUNDS OF SITE

(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							
Total Ammonia as N							
Chemical oxygen demand							
Biochemical oxygen demand							
Dissolved oxygen DO							
Orthophosphate as P							
Nitrate as N							
Nitrite as N							
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 4) Monitoring Point/ Grid Reference: GW05

Parameter	Results (mg/l)				Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	02/06/16	Date	Date	Date			
pH	7.69				Dipper		Electrometry
Temperature							
Electrical conductivity EC	0.445				Dipper		Electrometry
Total Ammonium as N	0.0208				Dipper		Standard Methods
Nitrite as N							
Nitrate as N							
Orthphosphate as P	<0.05				Dipper		Standard Methods
Dissolved oxygen DO	7.62				Dipper		Standard Methods
Residue on evaporation (180°C)							
Aluminium Al							
Arsenic As	0.000639				Dipper		Standard Methods
Boron B	0.0107				Dipper		Standard Methods
Calcium Ca	97.2				Dipper		Standard Methods
Cadmium Cd	0.000195				Dipper		Standard Methods
Chromium Cr	0.00306				Dipper		Standard Methods
Chloride Cl	8.9				Dipper		Standard Methods
Copper Cu	0.00209				Dipper		Standard Methods
Cyanide Cn, total							
Iron Fe	<0.019				Dipper		Standard Methods
Lead Pb	0.000279				Dipper		Standard Methods
Magnesium Mg	7.78				Dipper		Standard Methods
Manganese Mn	0.21				Dipper		Standard Methods
Mercury Hg	<0.00001				Dipper		Standard Methods
Nickel Ni	0.00255				Dipper		Standard Methods
Potassium K	1.41				Dipper		Standard Methods
Sodium Na	6.05				Dipper		Standard Methods
Sulphate SO_4	64.9				Dipper		Standard Methods

Groundwater Quality (sheet 2 of 4) GW05

Parameter	Results (mg/l)				Sampling method (composite, dipper etc.)	Normal Analytical Range	Analysis method / technique
	02/06/16	Date	Date	Date			
Phosphate PO_4							
Sulphate SO_4	64.9				Dipper		Standard Methods
Zinc Zn	0.179				Dipper		Standard Methods
Total alkalinity (as $CaCO_3$)	245				Dipper		Standard Methods
Total organic carbon TOC	<3				Dipper		Standard Methods
Total oxidised nitrogen TON							
Arsenic As							
Barium Ba							
Boron B							
Fluoride F	<0.5				Dipper		Standard Methods
Phenol							
Phosphorus P							
Selenium Se							
Silver Ag							
Nitrite NO_2	<0.05				Dipper		Standard Methods
Nitrate NO_3	>0.3				Dipper		Standard Methods
Faecal coliforms (/100mls)							
Total coliforms (/100mls)							
Water level (m OD)							

Table I.4(i) GROUNDWATER QUALITY
(Sheet 3 of 4) Monitoring Point/ Grid Reference: GW06

Parameter	Results (mg/l)				Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	02/06/16	Date	Date	Date			
pH	7.56				Dipper		Electrometry
Temperature							
Electrical conductivity EC	0.768				Dipper		Electrometry
Total Ammonium as N	0.0618				Dipper		Standard Methods
Nitrite as N							
Nitrate as N							
Orthphosphate as P	<0.05				Dipper		Standard Methods
Dissolved oxygen DO	5.64				Dipper		Standard Methods
Residue on evaporation (180°C)							
Aluminium Al							
Arsenic As	0.00538				Dipper		Standard Methods
Boron B	0.0255				Dipper		Standard Methods
Calcium Ca	139				Dipper		Standard Methods
Cadmium Cd	<0.0001				Dipper		Standard Methods
Chromium Cr	0.00391				Dipper		Standard Methods
Chloride Cl	40.8				Dipper		Standard Methods
Copper Cu	0.00127				Dipper		Standard Methods
Cyanide Cn, total							
Iron Fe	<0.019				Dipper		Standard Methods
Lead Pb	0.000076				Dipper		Standard Methods
Magnesium Mg	21				Dipper		Standard Methods
Manganese Mn	0.165				Dipper		Standard Methods
Mercury Hg	<0.00001				Dipper		Standard Methods
Nickel Ni	0.00499				Dipper		Standard Methods
Potassium K	1.89				Dipper		Standard Methods
Sodium Na	20.9				Dipper		Standard Methods
Sulphate SO_4	151				Dipper		Standard Methods

Groundwater Quality (sheet 4 of 4) GW06

Parameter	Results (mg/l)				Sampling method (composite, dipper etc.)	Normal Analytical Range	Analysis method / technique
	02/06/16	Date	Date	Date			
Phosphate PO_4							
Sulphate SO_4	151				Dipper		Standard Methods
Zinc Zn	0.00893				Dipper		Standard Methods
Total alkalinity (as $CaCO_3$)	335				Dipper		Standard Methods
Total organic carbon TOC	<3				Dipper		Standard Methods
Total oxidised nitrogen TON							
Arsenic As							
Barium Ba							
Boron B							
Fluoride F	0.59				Dipper		Standard Methods
Phenol							
Phosphorus P							
Selenium Se							
Silver Ag							
Nitrite NO_2	<0.05				Dipper		Standard Methods
Nitrate NO_3	<0.3				Dipper		Standard Methods
Faecal coliforms (/100mls)							
Total coliforms (/100mls)							
Water level (m OD)							

TABLE I.4(ii): LIST OF OWNERS/FARMERS OF LAND NOT APPLICABLE

Land Owner	Townlands where landspreading	Map Reference	Fertiliser P requirement for each farm
			*NMP must take account of on-farm slurry

Total P requirement of the client List _____

TABLE I.4(ii): LANDSPREADING NOT APPLICABLE

Land Owner/Farmer_____

Map Reference_____

Field ID	Total Area (ha)	(a) Usable Area (ha)	Soil P Test Mg/l	Date of P test	Crop	P Required (kg P/ha)	Volume of On-Farm Slurry Returned (m^3/ha)	Estimated P in On-Farm Slurry (kg P/ha)	(b) Volume to be Applied (m^3/ha)	P Applied (kg P/ha)	Total Volume of imported slurry per plot (m^3)

TOTAL VOLUME THAT CAN BE IMPORTED ON TO THE FARM:

Concentration of P in landspread material	- kg P/m^3
Concentration of N in landspread material	- kg N/m^3

Table I.7(i): AMBIENT & BACKGROUND NOISE ASSESSMENT

Need to carry out an assessment for tonal and impulsive noise[1]

REFER TO ATTACHMENT I.7 FOR AMBIENT/BACKGROUND NOISE ASSESSMENT RESULTS

	National Grid Reference (6N, 6E)	Sound Pressure Levels (dB)					
		L_{Aeq}		L_{A10}		L_{A90}	
		Ambient	Background[2]	Ambient	Background[2]	Ambient	Background[2]
1. SITE BOUNDARY[3]							
Location 1:							
Location 2:							
Location 3:							
Location 4:							
2. NOISE SENSITIVE LOCATIONS[3]							
Location 1:							
Location 2:							
Location 3:							
Location 4:							

1. Refer to section 5 of the Agency's *Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)* (2012).
2. Background noise levels should be determined in the absence of site specific noise. Where an installation is operational on a 24hr basis, estimates may be given for background noise levels, but this should be noted.
3. All locations should be identified on accompanying drawings.

ANNEX 2: CHECKLIST FOR Regulation 9 COMPLIANCE

Regulation 9 of the Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations, 2013 sets out the statutory requirements for information to accompany a licence application. The Application Form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in Regulation 9. In order to ensure a legally valid application in respect of Regulation 9 requirements, all Applicants should complete the following checklist and submit it with the completed Application Form.

Regulation 9(2)		**Section in Application**	**Checked by Applicant ✓**
(a)	Give: (i) the name, address and telephone number of the applicant and, if different, any address to which correspondence relating to the application should be sent and, if the applicant is a body corporate, the address of its registered or principal office, (ii) The location or postal address (including, where appropriate, the name of the relevant townland or townlands) of the premises to which the activity relates, (iii) The name of the planning authority in whose functional area the activity is or will be carried on, and (iv) 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 b which it is controlled	B1 B2 B6 B7	✓
(b)	give - (i) in the case of an established activity, the number of employees and other persons working or engaged in connection with the activity on the date after which a licence is required and during normal levels of operation, or (ii) in any other case, the gross capital cost of the activity to which the application relates,	B5	✓

Regulation 9(2)		Section in Application	Checked by Applicant ✓
(c)	specify the relevant class or classes in the First Schedule to the Act to which the industrial emissions directive activity relates,	B4	✓
(d)	In accordance with Section 87(1B)(a) of the EPA Act of 1992, as amended in the case where an application for permission for the development comprising or for the purposes of the industrial emissions directive activity to which the application for the licence relates is currently under consideration by the planning authority concerned or An Bord Pleanála, a written confirmation from the planning authority or An Bord Pleanála, as appropriate, of that fact together with either: (i) a copy of the environmental impact statement, 2 hard copies and 2 electronic copies or in such form as may be specified by the Agency, that was required to be submitted with the application for planning permission, or (ii) a written confirmation from the planning authority or An Bord Pleanála that an environmental impact assessment is not required by or under the Act of 2000,	B6(c)	✓
(e)	In accordance with section 87(1B)(b) of the EPA Act of 1992, as amended, in the case where permission for the development comprising or for the purposes of the industrial emissions directive activity to which the application for the licence relates has been granted, a copy of the grant of permission together with either: (i) a copy of the environmental impact statement, 2 hard copies and 2 electronic copies or in such form as may be specified by the Agency, that was required to be submitted with the application for permission, or (ii) a written confirmation from the planning authority or An Bord Pleanála that an environmental impact assessment was not required by or under the Act of 2000,	B6 (d)	✓
(f)	specify the raw and ancillary materials, substances, preparations, fuels and energy which will be produced by or utilised in the activity,	G1	✓

Regulation 9(2)		Section in Application	Checked by Applicant ✓
(g)	describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems, and operating procedures for the activity,	D1	✓
(h)	indicate how the requirements of section 83(5)(a)(i) to (v) and (vii) to (xa) of the Act shall be met, having regard, where appropriate, to any relevant specification issued by the Agency under section 5(3)(b) of that Act or any applicable best available techniques (BAT) conclusions adopted in accordance with Article 13(5) of the Industrial Emissions Directive and the reasons for the selection of the arrangements proposed,	L	✓
(i)	give particulars of the source, nature, composition, temperature, volume, level, rate, method of treatment and location of emissions, and the period or periods during which the emissions are, or are to be, made,	E	✓
(j)	identify monitoring and sampling points and outline proposals for monitoring emissions and the environmental consequences of any such emissions,	F	✓
(k)	provide: (i) details, and an assessment, of the impacts of any existing or proposed emissions on the environment as a whole, including on an environmental medium other than that or those into which the emissions are, or are to be, made, and (ii) details of the proposed measures to prevent or eliminate, or where that is not practicable, to limit, reduce or abate emissions,	I	✓
(l)	describe in outline the main alternatives to the proposed technology, techniques and measures which were studied by the applicant,	I.8a	✓

Regulation 9(2)		Section in Application	Checked by Applicant ✓
(m)	describe the condition of the site of the installation,	I	✓
(n)	Provide, when requested by the Agency, in the case of an activity that involves the use, production or release of relevant hazardous substances (as defined in section 3 of the Act of 1992) and having regard to the possibility of soil and groundwater contamination at the site of the installation, a baseline report in accordance with section 86B of the Act of 1992,	I.4	✓
(o)	specify the measures to be taken to comply with an environmental quality standard where such a standard requires stricter conditions to be attached to a licence than would otherwise be determined by reference to best available techniques,	F	✓
(p)	describe the measures to be taken for minimising pollution over long distances or in the territory of other states,	I	✓
(q)	describe the measures to be taken under abnormal operating conditions, including start-up, shutdown, leaks, malfunctions, breakdowns and momentary stoppages,	F	✓
(r)	describe the measures to be taken on and following the permanent cessation of the activity or part of the activity to avoid any risk of environmental pollution and to return the site of the activity to a satisfactory state or the state established in the baseline report if such is required under section 86B of the Act of 1992,	K	✓
(s)	describe the arrangements for the prevention of waste in accordance with Part III of the Act of 1996, and where waste is generated by the installation, how it will be in order of priority in accordance with section 21A the Act of 1996, prepared for re-use, recycling, recovery or where	H.12	✓

Regulation 9(2)		Section in Application	Checked by Applicant ✓
	that is not technically or economically possible, disposed of in a manner which will prevent or minimise any impact on the environment,		
(t)	specify, by reference to the relevant European Waste Catalogue codes as prescribed by Commission Decision 2000/532/EC of 3 May 2000, the quantity and nature of the waste or wastes produced or to be produced by the activity, or the quantity and nature of waste or waste accepted or to be accepted at the installation,	D.2.1	✓
(u)	state whether the activity consists of, comprises, or is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2006(S.I. No. 74 of 2006) apply,	A.1.7	✓
(v)	describe, in the case of an activity which gives rise, or could give rise, to an emission containing a hazardous substance which is discharged to an aquifer and is specified in the Annex to Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances, the arrangements necessary to comply with said Council Directive,	I.4	✓
(w)	include a non-technical summary of information provided in relation to the matters specified in subparagraphs (c) to (x) of this paragraph ,	A	✓
(x)	include any other information required under Article 11 of the Industrial Emissions Directive.	All sections and within EIS submitted	✓

Regulation 9(4) An application for a licence shall be accompanied by -		**Section in Application**	**Checked by Applicant ✓**
(a)	a copy of the relevant page of the newspaper in which the notice in accordance with Regulation 5 has been published,	B.9	✓
(b)	a copy of the text of the site notice erected or fixed on the land or structure in accordance with Regulation 6,	B.9	✓
(c)	a copy of the notice given to the planning authority under section 87(1)(a) of the EPA Act of 1992, as amended	B.9	✓
(d)	a copy of such plans, including a site plan and location map, and such other particulars, reports and supporting documentation as are necessary to identify and describe -		
	(i) the activity	D.1	✓
	(ii) the position of the site notice in accordance with Regulation 6,	B.9	✓
	(iii) the point or points from which emissions are made or are to be made, and	E	✓

	(iv) monitoring and sampling points, and	F.2	✓
(e)	a fee specified in accordance with section 99A of the EPA Act of 1992, as amended.	B.3B	✓

Regulation 9(5)		**Checked by Applicant ✓**
	A signed original and 1 hardcopy and 2 electronic copies of the application as required under paragraphs (1) and (2) or under paragraphs (1) and (3), where the application concerns a review of a licence, and the accompanying documents and particulars as required under paragraph (4), shall be submitted to the headquarters of the Agency. The 2 electronic copies of all application documentation and particulars must be in searchable PDF format on CD Rom in structured in accordance with the "Instructions for Licence Applicant". *http://www.epa.ie/pubs/forms/lic/industrial%20emissions/instructionsforapplicantsreapplicationform.html*	✓
	Hardcopies submitted.	✓
	CD version submitted.	✓