

Waste Licence Application Form Original ERA Ref. Nº:

This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Waste Management Act 1996, as amended.

Environmental Protection Agency

P.O.Box 5000, Johnstown Castle Estate, County Wexford Telephone: 053-9160600 Fax: 053-9160699



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Tracking Amendments to Application Form

Version No.	Date	Amendment since previous version	Reason
V.1	04/09/2012	Amended various sections to take account of the requirements of the European Communities (Waste Directive) Regulations 2011.	To accurately reflect the new requirements in the Regulations which transpose the Waste Framework Directive 2008/98/EC.
V.1	04/09/2012	Amended Section E.5 Noise Emissions, I.7 Noise Impact, Table E.5.(i) and Table I.7.(i) to take account of the document Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4) (2012).	To accurately reflect the changes in the document Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4) (2012).
V.1	04/09/2012	Amended Section B.3 to take account of the requirements of European Union (Environmental Impact Assessment) (Integrated Pollution Prevention and Control) Regulations 2012 (SI No 282 of 2012); in terms of Environmental Impact Assessment under the Environmental Impact Assessment Directive (Council Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment). Update references to new legislation	To accurately reflect the European Union (Environmental Impact Assessment) (Integrated Pollution Prevention and Control) Regulations 2012 (SI No 282 of 2012) requirements.

Environmental Protection Agency Application for a Waste Licence

WASTE MANAGEMENT ACT 1996, as amended

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ANNEX 1: STANDARD FORMS



INTRODUCTION

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

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

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

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

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

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

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

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

CHECKLIST

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

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

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

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

LOCATION	Attachment A	A.1 (a)	5	
CHECKED	Applicant	My ally	Official	

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

LOCATION	Attachment A.1 (b)	
CHECKED	Applicant 🖂	Official

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

LOCATION	Attachment A.1 (c)	
CHECKED	Applicant 🖂	Official

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

LOCATION	Attachment A.1 (d)	
CHECKED	Applicant 🔀	Official

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

LOCATION	Attachment A.1	
CHECKED	Applicant \boxtimes	Official

(f) specify the class or classes of activity concerned, in accordance with the Third and Fourth Schedules of the Act¹ and in the case of an application in respect of the landfill of waste, specify the class of landfill in accordance with Article 4 of the Landfill Directive,

LOCATION	Attachment A.7	
CHECKED	Applicant	Official

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

LOCATION	Attachment A.1	
CHECKED	Applicant \boxtimes	Official

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

LOCATION	Attachment 6	
CHECKED	Applicant X	Official

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

LOCATION	Attachment D	
CHECKED	Applicant 🔀	Official

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

LOCATION	Attachment L	
CHECKED	Applicant 🔀	Official

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

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

LOCATION	Attachment E	
CHECKED	Applicant 🔀	Official

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

LOCATION	Attachment E & I	
CHECKED	Applicant 🔀	Official

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

LOCATION	Attachment Frontie	
CHECKED	Applicant	Official

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

LOCATION	Attachment H	
CHECKED	Applicant \boxtimes	Official

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

LOCATION	Attachment H	
CHECKED	Applicant 🔀	Official

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

LOCATION	Attachment J	
CHECKED	Applicant 🔀	Official

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

LOCATION	Attachment K	
CHECKED	Applicant 🖂	Official

- (r) in the case of an application in respect of the landfilling of waste, give particulars of
 - (i) such financial provision as is proposed to be made by the applicant, having regard to the provisions of Articles (7)(i) and (8)(a)(iv) of the Landfill Directive and section 53(1) of the Act, and

LOCATION	Not applicable	
CHECKED	Applicant	Official

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

CHECKED	Applicant Applicant	Official
LOCATION	Not applicable & Not	_
	all all.	

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

LOCATION	Not Applicable	
CHECKED	Applicant	Official

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

LOCATION	Not Applicable see Attachment A.1(t)	
CHECKED	Applicant 🛛	Official

(t bis) describe in outline the main alternatives, if any, to the proposals contained in the application which were studied by the applicant,

LOCATION			
CHECKED	Applicant	\boxtimes	Official

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

LOCATION	Attachment A	
CHECKED	Applicant	Official

(v) describe how the waste hierarchy in section 21A of the Act is applied.

LOCATION	Attachment L	
CHECKED	Applicant \boxtimes	Official

Article 12(4) Without prejudice to Article 13(1) and (2), an application for a licence shall be accompanied by -

(a) a copy of the relevant page of the newspaper(s) in which the notice in accordance with article 6 has been published,

	\$01 10 to	
LOCATION	Attachment B.6	
CHECKED	Applicant 🖂	Official

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

LOCATION	Attachment I	3.6		
CHECKED	Applicant		Official	

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

LOCATION	Attachment A.2.1	
CHECKED	Applicant 🔀	Official

(d) a copy of such plans, (appropriately scaled and no larger than A3 size), including a site plan or plans and location map or maps and such other particulars, reports and supporting documentation as are necessary to identify and describe, as appropriate -

(i) the position of the notice in accordance with article 7,

LOCATION	Attachment B.1	
CHECKED	Applicant 🔀	Official

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

LOCATION	Attachment E	
CHECKED	Applicant 🔀	Official

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

LOCATION	Attachments E and F	
CHECKED	Applicant 🖂	Official

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

INCLUDED Y/N	Y	age is
CHECKED	Applicant	Official

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

<u> </u>				
HARDCOPIES PROVIDED Y/N	Y			
CHECKED	Applicant	\boxtimes	Official	
Conse				
CD OF PDF FILES	Y			
PROVIDED? Y/N				
CHECKED	Applicant	\boxtimes	Official	

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

EIA REQUIRED? Y/N	N (refer to Attachment B.3)
CHECKED	Applicant Official
3 HARD COPIES OF EIS INCLUDED? Y/N	Not Applicable
CHECKED	Applicant Official
16 CD versions of EIS, as PDF files,	Not Applicable
PROVIDED? Y/N	
CHECKED	Applicant Official



PROCEDURES

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

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

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

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

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

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

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

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



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

Applicants should be aware that a contravention of the conditions of a waste licence is an offence under Section 39 of the Waste Management Act 1996, as amended.

The provision of information in an application for a waste licence which is false or misleading is an offence under Section 45 of the Waste Management Act 1996, as amended.

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

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

The provision of information in an application for a waste licence, which is false or misleading, is an offence under Section 45 of the Acts.



SECTION A NON-TECHNICAL SUMMARY

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

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



SECTION B GENERAL

B.1 Applicant's Details

Name*:	Waterford City Council
Address:	City Hall
	The Mall
	Waterford
Tel:	051 309900
Fax:	051 870813
e-mail:	environservices@waterfordcity.ie

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

Name and Address for Correspondence

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

Name:	Mr. Derek Milton
Address:	Fehily Timoney & Company
	J5 Plaza gurgeriit
	North Road Business Park
	North Road, Dublin 11
Tel:	01 6583500 COLUMN
Fax:	01 6583501
e-mail:	Derek.milton@ftco.ie
	and the control of th

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

Address:	Not Applicable		
Tala			
Tel: Fax:			
Fax:			
e-mail·			

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

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



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

Landowner	
Lessee	
Prospective Purchaser	
Other (please specify)	
Name and address of all occupiers of the land on which the Activity is situated (if different japplicant named above). Name: Not Applicable	rom
Address:	
Tuui Coo.	
Tel:	
Fax:	
e-mail:	
Name and address of the current* owner(s) and lessees of the land, buildings and ancillary plant on which the activity is or will be situated (if different from applicant named above). An appropriately scaled drawing (\(\leq A3\)) showing the above details should be included in Attachmer Name: Not Applicable	t B1.
Address:	
Address.	
- COLUMN	
Tel:	
Fax:	
e-mail:	
*Current at the time the application is submitted	
B.2 Location of Activity	
Name: Waterford City Anaerobic Digestion Facility	
Name: Waterford City Anaerobic Digestion Facility Address*: Green Road	
·	
Address*: Green Road	
Address*: Green Road Kilbarry	
Address*: Green Road Kilbarry Six Cross Roads Business Park	
Address*: Green Road Kilbarry Six Cross Roads Business Park Waterford City, Co. Waterford	
Address*: Green Road Kilbarry Six Cross Roads Business Park Waterford City, Co. Waterford Tel:	

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National Grid Reference	E2582
(8 digit 4E,4N)	N1096

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

B.3 Planning Authority and/or Public Authority

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

Name:	Waterford City Council
Address:	City Hall
	The Mall
	Waterford
Tel:	051 309900
Fax:	051 870813

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

Planning Authority notified	Yes 🖂
	No

Planning Permission relating to this application

B.3(a)	is not required	, of co	•
B.3(b)	has been obtained	138 Mile	X
B.3(c)	is being processed	Cox	

Local Authority Planning	P8 02/12
File Reference Nº:	

Attachment B.3

B.3(a) Planning permission not required

Where the new activity or changes to the existing activity which require this licence/review application does not require a grant of planning permission, the following should be included in Attachment N^0 B.3:

- Confirmation in writing from the planning authority or An Bord Pleanála, as the case may be, that a grant of permission is not required,

AND

- Details of previous planning permissions granted for the development comprising the activity, including a copy of the grant of permission and a copy of all conditions.

AND EITHER



(a) Where the planning authority or An Bord Pleanála accepted or required the submission of a copy of an EIS under the Planning and Development Act 2000, as amended, for a previous planning permission application, the required number of copies of the <u>most recent</u> EIS should be submitted. A copy of the planning inspector's report associated with that EIS should also be submitted.

OR

- (b) Where an EIS was not required for any previous planning permissions granted for the development comprising the activity, submit confirmation in writing from the planning authority or An Bord Pleanála that an environmental impact assessment was not required for the development by or under the Planning and Development Act 2000, as amended.
- Where a grant of planning permission has never been required for the site of the activity, submit confirmation in writing from the planning authority or An Bord Pleanála, as the case may be, of same.

B.3(b) Planning permission already granted

Where the new activity or changes to the existing activity which require this licence/review application has already been granted planning permission by a planting authority or An Bord Pleanála, the following should be included in Attachment N° B.3:

- a copy of the grant of permission and either:
 - where the planning authority or An Bord Pleanála accepted or required the submission of a copy of an EIS under the Planning and Development Act 2000, as amended, the required number of copies of that EIS;
 - (b) confirmation in writing from the planning authority or An Bord Pleanála that an environmental impact assessment was not required for the development by or under the Planning and Development Act 2000, as amended.
- A summary of all previous planning permissions granted for the site of the activity should be provided.

B.3(c) Planning permission under consideration

Where the new activity or changes to the existing activity which require this licence/review application involves development or proposed development that requires a grant of planning permission, and the relevant planning application is under consideration by the planning authority or An Bord Pleanala, the following should be included in **Attachment** N° **B.3**:

- 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, and either:
 - (a) the required number of copies of the EIS relating to that application for permission, where one is required by or under the Planning and Development Act 2000, as amended;

OR



- (b) 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, as amended.
- A summary of all previous planning permissions granted for the site of the activity should be provided.

For B.3(b) and B.3(c) above, please note that in accordance with Section 42(1C) of the Waste Management Act 1996, as amended, the Agency shall *refuse to consider* the licence application if the applicant does not comply with the requirements of Section 42(1B).

Licences and permits

For existing activities, **Attachment** $N^{\underline{o}}$ **B.3** should also contain a table of references to all licences and permits past and presently in force at the time of submission.

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 N^{\circ} B.3.**

B.4 Sanitary Authority

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

Name:	Waterford City Council			
Address:	City Hall			
	The Mall			
	Waterford			
Tel:	051 309900			
Fax:	051 870813			
Name:	Waterford City Waste Water Treatment Plant			
Address:	Gorteens			
	Belview			
	Co. Kilkenny			
	(DBO contract with Anglian Water)			

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



B.5 Other Authorities

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

Name:	HSE – Waterford Local Health Office
Address:	Cork Road
	Waterford
	Co. Waterford
Tel:	051 842 800
Fax:	unknown

B.6 Notices and Advertisements

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

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

**Continue of the site notice and an appropriately scaled drawing (\leq A3) showing its location on site. The original application must include the complete newspaper in which the advertisement should be included with the original and three copies of the application.

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B.7 Type of Waste Activity, Tonnages & Fees

B.7.1 Specify the class or classes of activity in Table B.7.1, in accordance with the Third Schedule or Fourth Schedule to the Waste Management Acts 1996 to 2010, as amended by the European Communities (Waste Directive) Regulations, 2011, to which the application relates (check the relevant box(es) and mark the principal activity with a 'P').

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

TABLE B.7.1 THIRD AND FOURTH SCHEDULES OF THE WASTE MANAGEMENT ACT 1996, AS AMENDED.

	Waste Manag	gemen	Act 1996, as	amended.	
	Third Schedule	Y/N	·	Fourth Schedule	Y/N
	Waste Disposal Operations			aste Recovery Operations	-
D1	Deposit into or on to land (e.g. including landfill, etc.).	N Regedice Wites	R 1 Use princ energy: dedicated waste on or above	cipally as a fuel or other means to generate This, includes incineration facilities the processing of municipal solid where their energy efficiency is equal to	Y
D 2	Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.).	N	R 2 Solvent r	eclamation/regeneration.	N
D 3	Deep injection (e.g. injection of pumpable	NI	R 3 Recycling	g /reclamation of organic substances	D
<i>D</i> 3	discards into wells, salt domes or naturally occurring repositories, etc.).	N	which a	are not used as solvents (including ng and other biological transformation	P



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

TABLE B.7.2 MAXIMUM ANNUAL TONNAGE

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

Maximum Annual Tonnage (tpa)	22,000
Year	2014* onwards

^{*} envisaged first full year of operation

B.7.3 FEES

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

Waste Activity	Fee (in €)
Disposal of Waste (3.3)	€ 6,000
Recovery of Waste (4)	€ 6,000
Total	€ 12,000

TABLE B.7.4 (FOR A LANDFILL APPLICATION)

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

NOT APPLICABLE

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

TABLE B.7.5 (FOR A LANDFILL APPLICATION)

In accordance with the requirements of Article 9(b) of the Landfill Directive, state the total quantity of waste for which authorisation is sought to be deposited in the landfill – complete the following table:

Total quantity of waste to be deposited at the landfill facility	Tonnes*	Void in cubic metres (m³)
(a) Waste deposited to date		
(b) Total waste to be deposited over lifetime of development (including deposited to date)		

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

B.8 SEVESO II DIRECTIVE

State whether the activity is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous substances) Regulations, 2006 (S.I. No. 74 of 2006), apply.



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

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SECTION C MANAGEMENT OF THE FACILITY

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

C.1 Technical Competence and Site Management

This information should form **Attachment C 1**.

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

Name	Position	Duties and Responsibilities	Experience / Qualifications		
Please refer to Attachment C1 for details					

C.2 Environmental Management System

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

C.3 Hours of Operation

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

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



SECTION D INFRASTRUCTURE & OPERATION

D.1 Infrastructure

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

Table D.1. Infrastructure		y/n	Comments
D.1.a	Site security arrangements including gates and fencing	Y	See Attachment D.1.a
D.1. b	Designs for site roads	Y	D.1.b
D.1.c	Design of hardstanding areas	Y	D.1.c
D.1.d	Plant	Y	D.1.d
D.1.e	Wheel-wash	Y	D.1.e
D.1.f	Laboratory facilities	. N	Not applicable
D.1.g	Design and location of fuel storage areas	Y	D.1.g
D.1.h	Design and location of fuel storage areas Waste quarantine areas Waste inspection areas Traffic control	Y	D.1.h
D.1.i	Waste inspection areas	Y	D.1.i
D.1.j	Traffic control	Y	D.1.j
D.1.k	Sewerage and surface water drainage infrastructure	Y	D.1.k
D.1.l	All other services	Y	D.1.1
D.1.m	Plant sheds, garages and equipment compound	Y	D.1.m
D.1.n	Site accommodation	Y	D.1.n
D.1.0	A fire control system, including water supply	Y	D.1.o
D.1.p	Civic amenity facilities	N	Not Applicable
D.1.q	Any other waste recovery infrastructure	Y	D.1.q
D.1.r	Composting infrastructure	Y	D.1.q
D.1.s	Construction and Demolition waste infrastructure	N	Not Applicable
D.1.t	Incineration infrastructure (if applicable).	N	Not Applicable
	Provide information to fulfil Article 4 (2) & (3) of the Incineration of Waste Directive		
D.1.u	Any other infrastructure	Y	D.1.u

D.2 Facility Operation

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

The requirements of article 12(1)(t bis) of the Licensing Regulations should be addressed in **Attachment D.2** by outlining the main alternatives to the proposals contained in the application which were studied by the applicant.

Attachment included	yes 🖂	no	not applicable
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LANDFILLS

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

D.3 Liner System

NOT APPLICABLE

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

TABLE D.3 LINER SYSTEM

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



D.4 Leachate Management NOT APPLICABLE

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

TABLE D.4.1 LEACHATE MANAGEMENT ARRANGEMENTS

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

D 5 Landfill Gas Management

NOT APPLICABLE

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

Table D.5. Landfill Gas Management

NOT APPLICABLE

		y/n	Comments
D.5a	Is there a Landfill Gas Management Plan?		
	Provide estimates of the volumes of landfill gas which will be produced by the waste disposed of in the site for the next 20 years, and compare to the EPER list for methane:		
D.5b	Is there a passive venting system?		
D.5c	Does the passive system cover all of the filled area?		
D.5d	Have gas alarm systems been installed in the site buildings?		^{Ke} s.
D.5e	Have measures been installed to prevent landfill gas migration (e.g. barriers)? Has a time-scale been proposed for the	iny other	
D.5f	Has a time-scale been proposed for the installation of landfill gas change infrastructure?		
D.5g	Is gas flaring undertaken at the site?		
D.5h	Is there an active (i.e., pumped) landfill gas extraction system?		
D.5i	Does the active system cover all of the filled area?		
D. 5j	Is landfill gas used to generate energy at the site?		
D.5k	Have emissions from the flarestack and utilisation plant been assessed for source, composition, quantity and level and rate?		
D.51	Has a maintenance programme for the control system been specified?		
D.5 m	Has a condensate removal system been designed?		



D.6 Capping System

NOT APPLICABLE

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

Table D.6 Capping System

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



SECTION E EMISSIONS

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

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

E.1 Emissions to Atmosphere

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

E.2 Emissions to Surface Waters

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

E.3 Emissions to Sewer

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

E.4 Emissions to Groundwater

Describe the existing or proposed arrangements necessary to give effect to Articles 3, 4, 5, 6, and 7 of Council Directive 8068/EEC of 17 December 1979 on the protection of groundwater against pollution by certain dangerous substances and the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010.

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

Supporting information should form **Attachment E.4**

E.5 Noise Emissions

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

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

Supporting information should form **Attachment E.5**

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 Environmental Nuisances

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

TABLE E.6 ENVIRONMENTAL NUISANCES

Bird Control	Control method specified	yes 🗌	no	not applicable⊠
	Attachment included	yes 🗌	no	not applicable⊠
Dust Control	Control method specified	yes 🖂	RO .	not applicable
	Attachment included	yes 🔀 🖰	no	not applicable
Fire Control	Control method specified	ited Steps	no	not applicable
	Attachment included	yes 🖂	no	not applicable
Litter Control	Control method specified specified	yes 🗌	no	not applicable⊠
	Attachment included	yes 🗌	no	not applicable $oxtime $
Traffic Control	Control method specified	yes 🖂	no	not applicable
	Attachment included	yes 🖂	no	not applicable
Vermin Control	Control method specified	yes 🖂	no	not applicable
	Attachment included	yes 🖂	no	not applicable
Road Cleansing	Control method specified	yes 🖂	no	not applicable
	Attachment included	yes 🖂	no	not applicable



SECTION F CONTROL & MONITORING

F.1: Treatment, Abatement and Control Systems

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

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

Attachment F.1 should contain any supporting information.

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

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

Include details of monitoring/sampling locations and methods.

F.2 Air

- to include Dust, Odour

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

F.3 Surface Water

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

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



F.4 Sewer Discharge

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

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

F.5 Groundwater

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

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

F.6 Noise

Monitoring Arrangements specified	yes of no	not applicable
Monitoring points identified, (plus	yes no	not applicable
12-figure grid references)	an pur redu	
Attachment included	yes \(\square \) no	not applicable

F.7 Meteorological Data

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

An application for landfill requires the additional Attachments F.7 to F.8, to be completed:

F.8 Leachate

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

F.9 Landfill Gas NOT APPLICABLE

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

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

Pierres		D 1	T C	M (1 1 C	T.C.
Parameter	Concentration (mg/Nm³)	Proposed Frequency of Analysis	Information Included Y/N	Method of Analysis	Information Included Y/N
Inlet		<i>j</i>			
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			√2°.		
Hydrogen Fluoride			es.		

Table F.9(b) Landfill Gas Monitoring NOT APPLICABLE

Parameter	Proposed Freque	ncy of Analysis	Information Included Y/N	Method of Analysis	Information Included Y/N
	Gas boreholes / vents/ wells/ perimeter locations	Facility Officer			
Methane (CH ₄) % v/v	COT	it dit			
Carbon Dioxide (CO ₂) % v/v	, 00	E.			
Oxygen (O ₂) % v/v	ator				
Atmospheric Pressure	CONSO				
Temperature					

Table F.9 (c) Landfill Gas Infrastructure NOT APPLICABLE

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

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

SECTION G RESOURCES USE & ENERGY EFFICIENCY

G.1 Raw Materials, Substances, Preparations and Energy

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

Attachment	yes 🖂	no	not applicable
included			

G.2 Energy Efficiency

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

Attachment yes restriction not applicable nocluded reprint the first of the first o



SECTION H MATERIALS HANDLING

H.1 Waste Types and Quantities – Existing & Proposed

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

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

Waste Management Acts 1996, as amended.		Waste Management Acts 1996, as amended.		
3rd Schedule (D	isposal) Operations	4th Schedule (Recovery) Operations		
Class of	Quantity (tpa)	Class of	Quantity (tpa)	
Activity		Activity		
Applied For		Applied For		
Class D 1	Not Applicable	Class R 1	22,000	
Class D 2	Not Applicable	Class R 2	Not Applicable	
Class D 3	Not Applicable	Class R 3	22,000	
Class D 4	18,000 t/m ³	Class R 4	Not Applicable	
	liquid digestate		OU	
Class D 5	Not Applicable	Class R 650 Class R 7	Not Applicable	
Class D 6	Not Applicable	Class & 650	Not Applicable	
Class D 7	Not Applicable	Class R7	Not Applicable	
Class D 8	Not Applicable	Class R 8	Not Applicable	
Class D 9	Not Applicable	Gass R 9	Not Applicable	
Class D 10	Not Applicable	Class R 10	Not Applicable	
Class D 11	Not Applicable	Class R 11	Not Applicable	
Class D 12	Not Applicable	Class R 12	675	
Class D 13	675	Class R 13	2,000 solid	
	sent		digestate	
	675 Consent of		$18,000 \text{ t/m}^3$	
			liquid	
			digestate*	
Class D 14	Not Applicable			
Class D 15	675			

¹ t liquid digestate = 1 m³ liquid digestate

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



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

Year	Non-hazardous waste (tonnes per annum)	Hazardous waste (tonnes per annum)	Total annual quantity of waste (tonnes per annum)
2014	22,000	0	22,000
2015	22,000	0	22,000
2016	22,000	0	22,000
2017	22,000	0	22,000
2018	22,000	0	22,000

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

TABLE H.1 (C) WASTE TYPES AND QUANTITIES

WASTE TYPE	TONNES PER ANNUM (existing)	TONNES PER ANNUM (proposed)	TOTAL (over life of site) tonnes
Household Commercial	20,000*	13,500 thet 13°C.	270,000 (based on 20 year operation)
Sewage Sludge	Not Applicable	Not Applicable	Not Applicable
Construction and Demolition	Not Applicable	on Applicable	Not Applicable
Industrial Non- Hazardous Sludges Organic Liquids	Not Applicable the pringer	8,500	170,000 (based on 20 year operation)
Industrial Non- Hazardous Solids	Not Applicable	Not Applicable	Not Applicable
Hazardous *(Specify detail in Table H 1.2)	Not Applicable	Not Applicable	Not Applicable
Inert Waste imported for restoration purposes	COMPLETE	FOR LANDFILL & CONT	AMINATED LAND

^{*}INCLUDING GREEN WASTES

* TABLE H.1.2 HAZARDOUS WASTE TYPES AND QUANTITIES

HAZARDOUS WASTE	DETAILED DESCRIPTION	Tonnes Per Annum (Existing)	(Tonnes Per Annum Proposed)	
Waste Oil	Not Applicable			
Oil filters	Not Applicable			
Asbestos	Not Applicable			
Paint and Ink	Not Applicable			
Batteries	Not Applicable			
Fluorescent Light Bulbs	Not Applicable			
Contaminated Soils	Not Applicable			
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)				
Spent activated carbon filter*	EWC 19 01 10	0	12	

Attachment H.1 should contain any relevant additional information.

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

H.2 Waste Acceptance Procedures

Procedures for checking waste loads as they arrive at the facility must be included. These should follow the requirements of the Agency's Waste Acceptance Manual and, for landfills, Council Decision 2003/33/EC. A copy of these procedures and other associated documentation should be included as **Attachment H.2.**

H.3 Waste Handling

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

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

H.3a Waste Handling at the Landfill Facility

State the manner in which it will be verified or assured that waste will be subject to treatment prior to landfilling in accordance with the requirements of article 6 of the Landfill Directive.



Provide information on the quantity of biodegradable municipal waste to be accepted and how the targets of article 5 of the Landfill Directive (1999/31/EC), as they have been adopted in Ireland, are to be achieved. In particular describe how operation of the landfill will contribute to:

- (a) a reduction by 16/07/2010 to 75% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;
- (b)a reduction by 16/07/2013 to 50% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available:
- (c)a reduction by 16/07/2016 to 35% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available.

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

H.4 Waste Arisings

Waste Arisings should be considered for all contaminated soil applications. Details of all waste materials generated on the site including name, description and nature as well as the source(s) should be identified. The quantities of each type of waste generated on an annual/monthly basis should be calculated and stated in Tables H.4(i) and H.4(ii) of the application form. Applicants should also provide conversion factors used to relate volume (m³) and tonnage (t) for their waste stream.

H.5 Waste Recycling and Recovery

Applicants should describe Attachment H.5 how waste activities will contribute to the requirements of regulation 31(1) and (2) of the European Communities (Waste Directive) Regulations 2011.

Applicants should also describe how they intend complying with the requirements of regulation 29(2A) of the Regulations regarding waste recovery.



SECTION I EXISTING ENVIRONMENT & IMPACT OF THE FACILITY

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

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

I.1. Assessment of atmospheric emissions

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

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

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

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

I.2. Assessment of Impact on Receiving Surface Water

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

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

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

The requirements of and environmental quality standards contained in the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009) should be considered. Information should be provided on the manner in which these Regulations were taken into account in the assessment of the impact of emissions to surface waters.

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WASTE Application Form

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

I.3. Assessment of Impact of Sewage Discharge.

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

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

I.4 Assessment of impact of ground/groundwater emissions

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

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

The requirements of the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.L. No. 9 of 2010) should be considered. Information should be provided on the manner in which these Regulations were taken into account in the assessment of the impact of the activity on groundwater.

I.5 Ground and/or groundwater contamination

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

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

The requirements of the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010) should be considered. Information should be provided on the manner in which these Regulations were taken into account in the assessment of groundwater contamination and any remedial works carried out or proposed.

I.6 Noise Impact.



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

Ambient noise measurements

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

- (i) State the maximum Sound Pressure Levels which will be experienced at typical points on the boundary of the operation. (State sampling interval and duration)
- (ii) State the maximum Sound Pressure Levels which will be experienced at typical noise sensitive locations, outside the boundary of the operation.
- (iii) Give details of the background (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** N^{o} **I.6.**

I.7 Assessment of Ecological Impacts & Mitigation Measures

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

SECTION J ACCIDENT PREVENTION & EMERGENCY RESPONSE

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

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

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

Supporting information should form **Attachment J.**

Attachment included	yes 🖂	no	not applicable
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SECTION K REMEDIATION, DECOMMISSIONING, RESTORATION AND AFTERCARE

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

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

A 441			4 10 1.1 .
Attachment included	ves X	no	not applicable

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SECTION L STATUTORY REQUIREMENTS

L.1 Section 40(4) WMA

Indicate how all the requirements of Section 40(4)[(a) to (j)] of the Waste Management Act 1996, as amended, will be met.

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 screening, it is considered that an Appropriate Assessment is not required, provide a reasoned response.

The screening report and Natura Impact Statement, where applicable, shall be provided in **Attachment L.1.**

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

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

Attachment included	cente	yes 🖂	no	not applicable
	all			

L.2 Fit and Proper Person

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

- Indicate whether the applicant or other relevant person has been convicted under the Waste Management Act 1996, as amended, the EPA Act 1992, as amended, the Local Government (Water Pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.
- Provide details of the applicant's technical knowledge and/or qualifications, along with that of other relevant employees (Link to Section C.1 of the application).



Provide information to show that the person is likely to be in a position to
meet any financial commitments or liabilities that may have been or will be
entered into or incurred in carrying on the activity to which the application
relates or in consequence of ceasing to carry out that activity (Link to
Section K of the application).

Supporting information should be included as **Attachment L.2** with reference to where the information can be found in the application.

Attachment included	ves 🖂	no	not applicable
	J U		

L.3 Waste hierarchy

Section 21A of the Waste Management Act 1996, as amended, as amended, requires that the waste hierarchy shall apply. When applying the waste hierarchy, the Agency is obliged to take measures to encourage the options that deliver the best overall environmental outcome. Any departures from the hierarchy can be justified by life-cycle thinking on the overall impacts of the generation and management of specific waste streams. Applicants should justify any departures from the hierarchy on this basis and as set out in section 21A(2) of the Acts.

Applicants should be aware of the requirements related to recovery of waste set out in section 29(2A) of the Acts. (See section H.5 above).

In accordance with article 12(1)(v) the Waste Management (Licensing) Regulations, 2004, as amended, describe in **Attachment L.3** how the waste hierarchy is applied in or by the proposed activity.

Attachment included	yes 🖂	no	not applicable

L.4 Principles of self-sufficiency and proximity

Applicants should state in **Attachment L.4** how the proposed activity contributes to the requirements of Section 37A of the Waste Management Act 1996, as amended.

A44 1 4 1 1 1 1			4 19 11
Attachment included	yes 🔀	no	not applicable

SECTION M DECLARATION

Declaration

I hereby make application for a licence / revised licence, pursuant to the provisions of the Waste Management Acts 1996, 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 inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website. This consent relates to this application itself and to any further information, submission, objection, or submission to an objection whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Signed by: Signed by: Solution Date: 5/12/12

Print signature name: Core Total Reduced By Rive.

Position in organisation: Solution By Rive.

Company stamp or seal.

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WATERFORD CITY COUNCIL



ANNEX 1 STANDARD FORMS

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

TABLE E.1(i)	LANDFILL GAS FLARE EMISSIONS	TO ATMOSPHERE
Emission Point:	NOT APPLICABLE	

Emission Point Ref. Nº	-				
Location:					
Grid Ref. (12 digit, 6E,6	N):			.©•	
Vent Details			(stiet us	
Diamet	er:		as only any		
Height above Ground(1	m):	ion purpo	hited		
Date of commencement emission:	of	For its Pectowith			
Vent Details Diameter Height above Ground(note the mission: Characteristics of Emission: Co Total organic carbon (Total NOx	sions:	nt of o			
СО					mg/m ³
Total organic carbon (To	OC)				mg/m ³
NOx				% O ₂ (Liquid or Gas), 6	mg/Nm ³ % O ₂ (Solid Fuel)
Maximum volume of en	missic	on			m ³ /hr
Temperature		°C	(max)	°C(min)	°C(avg)
(i) Period or period including daily of		_			
Periods of Emission (av	/g)	n	nin/hr	hr/day	day/yr

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

Emission Point Ref. Nº:	A1
Source of Emission:	Biofilter
Location:	Stack on biofilter from odour abatement unit
Grid Ref. (12 digit, 6E,6N):	258371 109563
Vent Details	
Diameter:	1.1 m diameter
Height above Ground(m):	15 m high above ground
Date of commencement:	To be decided (commissioning of facility)

Characteristics of Emission:

(i) Volume to be e	emitted:	off of any of	
Average/day	596,160 m ³ /d	Maximum/day	596,160 m ³ /d
Maximum rate/hour	24 840 m³ (bit)	Min efflux velocity	6.9 m.sec ⁻¹
(ii) Other factors	For Tright		
Temperature	One of O'C (max)	0°C(min)	20°C(avg)
For Combustion Source Volume terms express		le	

(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	<u>365</u> day/yr
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Emission Point Ref. Nº:	A2
Source of Emission:	Air handling unit from wood drying building
Location:	Filtration system on wood drying building
Grid Ref. (12 digit, 6E,6N):	258390 109553
Vent Details	
Diameter:	1.2 m diameter
Height above Ground(m):	7 m high above ground
Date of commencement:	During commissioning of facility

The characteristics of the emissions will be agreed with the Agency following detailed design.

The characteristics of the emissions will be agreed with the Agency following detailed design.

The characteristics of the emissions will be agreed with the Agency following detailed design.

The characteristics of the emissions will be agreed with the Agency following detailed design.

Emission Point Ref. No:	A3
Source of Emission:	CHP Plant
Location :	Stack on biogas engine
Grid Ref. (12 digit, 6E,6N):	258375 109533
Vent Details	
Diameter:	0.35m diameter
Height above Ground(m):	10 m high above ground
Date of commencement:	During commissioning of facility

Characteristics of Emission:

(i) Volume to be emitted:									
Average/day	33,552 m ³ /d	Maximum/day	m³/d						
Maximum rate/hour	m ³ /h	Min efflux velocity	m.sec ⁻¹						
(ii) Other factors									
Temperature	°C(max)	°C(min)	180°C(avg)						
For Combustion Source Volume terms express		8%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*):

	<u>~</u>
Periods of Emission (avg)	60 min/hr 24 hr/day 328 day/yr

328 days assumes that the engine has approx 10% downtime for maintenance etc over the course of a year.

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Emission Point Ref. Nº:	A4
Source of Emission:	Biogas Flare
Location:	Backup biogas flare
Grid Ref. (12 digit, 6E,6N):	258323 109531
Vent Details	
Diameter:	1.0 m diameter
Height above Ground(m):	6 m high above ground
Date of commencement:	During commissioning of facility

Characteristics of Emission:

(i) Volume to be emitted:								
Average/day	Not applicable m ³ /d	Maximum/day	94,052 m ³ /d					
Maximum rate/hour	3,919 m ³ /h	Min efflux velocity	m.sec ⁻¹					
(ii) Other factors								
Temperature	°C(max)	°C(min)	800°C(avg)					
For Combustion Source Volume terms express		10%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*):

	<u>_</u>
Periods of Emission (avg)	10% of 60 min/hr, 24 hr/day 365 day/yr

The flare is to be used as a backup to the engine which is expected to have a downtime of approximately 10%. Therefore the flare is likely to run 10% of the time.

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TABLE E.1(iii): MAIN EMISSIONS TO ATMOSPHERE -**Chemical characteristics of the emission** (1 table per emission point)

Emission Point Reference Number: <u>A1</u>

Parameter	Prior to treatment ⁽¹⁾			Brief	As discharged ⁽¹⁾						
	mg/	Nm³	k	g/h	description	mgN/m ³		kg/h.		kg/year	
	Avg	Max	Avg	Max	of treatment	Avg	Max	Avg	Max	Avg	Max
Ammonia					Biotrickling filter on an	50		1.224		10,722	
Hydrogen Sulphide					inorganic clay bed followed by an activated	0.9		0.0216		189	
Mercaptans					carbon polishing unit.	5		0.108		946	
Bioaerosols including ¹ Aspergillus fumigates					tion purposities	1,200 cfu/m ³		2.979x10 ^{^7} cfu/h		2.609x10 ^{^11} cfu/year	
Total Mesophillic bacteria				Got cot	carbon polishing unit.	5,000 cfu/m ³		1.24x10 ^{^8} cfu/h		1.09x10 ^{^12} cfu/year	
Total fungi				Consent of		10,000 cfu/m ³		2.5x10 ^{^8} cfu/h		2.17x10 ^{^12} cfu/year	
Odour						1,000 Ou _E /m ³		2.5x10 ^{^7} Ou _E /h		2.17x10 ^{^11} Ou _E /year	

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.

The data in the table above is normalised for concentration expressed as mg/Nm3. The data for concentrations expressed as kg/h and kg/year is not normalised and is based on mass emissions.



Emission Point Reference Number:

<u>A3</u>

Parameter		Prior to treatment ⁽¹⁾			Brief	As discharged ⁽¹⁾						
	mg/Nm³ kg/h		description	mg/m ³		kg/h.		kg/year				
	Avg	Max	Avg	Max	of treatment	Avg	Max	Avg	Max	Avg	Max	
NO _x as NO ₂					Combustion of biogas in		244.47		0.34		2,992.77	
СО					an engine resulting in oxidation of pollutants and generation of energy.		684.52		0.96		8,382.27	
Particulates					and generation of chargy.		63.56		0.09		778.94	
Total Non-Methane VOC (TNMVOC)					and generation of energy.		36.67		0.05		447.81	
Total VOC					citon pure feath		488.94		0.68		5,991.84	
Hydrogen Chloride				coi	tight out		24.45		0.03		200.50	
Hydrogen Fluoride				at of co			24.45		0.03		299.59 28.38	

Note: For the purpose of this table, it has been assumed that the engine will run continuously. In reality, there will be some downtime for maintenance or in event of a breakdown when the flare will take over oxidation of the biogas. The downtime is estimated at 10%.

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.

The data for concentrations expressed as mg/m³, kg/h and kg/year is not normalised. The modelling was carried out for dry gas.



Emission Point Reference Number:

<u>44</u>

Parameter		Prior to tr	reatment ⁽¹⁾		Brief	As discharged ⁽¹⁾						
	mg/	'Nm³	k	g/h	description	mg/Nm ³		kg/h.		kg/ye	ear	
	Avg	Max	Avg	Max	of treatment	Avg	Max	Avg	Max	Avg	Max	
NO _x as NO ₂					Oxidation of pollutants by	23.240		0.0091	0.0182	79.78	159.57	
СО					combustion in a high temperature enclosed	7.747		0.003	0.006	26.49	52.98	
Particulates					other t			0	0	0	0	
Total Non-Methane VOC (TNMVOC)					oses altor and			0	0	0	0	
Total VOC					on purple require	23.240		0	0	0	0	
Total Organic Carbon (TOC)				coti	temperature enclosed flare. flare. specifor purposes of for any other use.	1.55		0.003	0.006	26.49	52.98	
Hydrogen Chloride				Concept of cor	P	7.75		0.0003	0.0006	2.53	5.045	
Hydrogen Fluoride				Coll		0.77		0.0006	0.0012	5.36	10.72	

Note: It is assumed that the flare will run 10% of the year (average values). It is a backup to the CHP engine.

A maximum runtime of 20% has been assumed.

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.

The data for concentrations expressed as mg/Nm³, kg/h and kg/year is not normalised. The modelling was carried out for dry gas.

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

Emission point	Description		Emission	details ¹	Abatement system employed	
Reference Numbers		material	mg/Nm ³⁽²⁾	kg/h.	kg/year	
	C	For its petito	a purpose only.	any other use.		

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

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

TABLE E.2(i): EMISSIONS TO SURFACE WATERS

(One page for each emission)

Emission Point: SW1

Emission Point Ref. No:	SW1
Source of Emission:	Surface water from site runoff
Location :	The pond will discharge to the adjacent stream on the western boundary of the site via a pipe under the road at SW1.
Grid Ref. (10 digit, 5E,5N):	258224 109525
Name of receiving waters:	The receiving stream is part of the Knockenn Tributary of the River Suir waterbody area in Hydrometric Area HA16 Suir under the Suir Estuary Water Management Unit of the South Eastern River Basin District
Flow rate in receiving waters:	m ³ .sec ⁻¹ Dry Weather Flow m ³ .sec ⁻¹ 95%ile flow
Available waste assimilative capacity:	kg/day

Emission Details:

(i) Volume to be emitted –									
Normal/day	501 m ³	Maximum/day	501 m ³						
Maximum rate/hour	21 m ³								

A normal day has been calculated on the allowable outflow from the pond for 1 year storm event with 24 hours continuous rainfall. The pond has been sized in accordance with the Greater Dublin Strategic Drainage Study procedure. The flow from will be controlled by an outlet structure .

(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)	60n	nin/hr 24	_hr/day	<u>365</u> day/yr
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TABLE E.2(ii): EMISSIONS TO SURFACE WATERS - Characteristics of the emission (1 table per emission point)

Emission point reference number: <u>SW1</u>

Parameter		Prior to t	reatment				% 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	
As per Schedule B.2 of the Waste Licence W0234-01.			Çoʻs	for inspection for in	A Purpose out of any our out of a Purpose out of a purpos				



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

Emission Point: Sewer 1

Emission Point Ref. No:	FW1
Location of connection to sewer:	On -site sewer connection point
Grid Ref. (10 digit, 5E,5N):	258412 109523
Name of sewage undertaker:	Waterford City Council

Emission Details:

(i) Volume to be emitted									
Normal/day	2.1 m ³	Maximum/day158.	62.1 m ³						
Maximum rate/hour	2.17 m ³	Solid, sud of							

During a normal day, 2.1 m³ of foul water will be discharged. This includes 0.3 m³/day from the welfare facilities and 1.8 m³/day from the building and truck washdown in accordance with DAFM. If no outles is found for the liquid digestate (as fertiliser), it will be discharged to sewer at a rate of 50 m³/day. A allowance of 10 m³/day on the maximum as been included to allow for peak flow.

(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	hr/day 365	day/yr
---------------------------	-----------	------------	--------

In the event that no outlets are available for the use of liquid digestate as a fertiliser, it will be discharged to sewer. The above tables indicate the worst case scenario as the max/day or hour. The average expected discharge is $0.3 \, \text{m}^3/\text{day}$ from welfare facilities on site.

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

Emission point reference number : FW1

Parameter		Prior to t	reatment				% 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					20000	20000	1302	475,230	
COD					65000 3000 3000 300 20 ection purposes edition 6-10 fight council tedition 8000	65000	4036	1,473,140	
Suspended Solids					3000 05 10 10 10 10 10 10 10 10 10 10 10 10 10	3000	186	67,890	
OFG					300 Thirtedin	300	18.6	6,789	
Mineral Oils					20 section net	20	1.3	475	
рН					6-10 dit	6-10	-	-	
Ammonia					8000	8000	496	181,332	
				Consent	o				

It is not proposed to treat any of the foul water prior to emissions to sewer. This table represents the scenario where the liquid digestate is discharged to sewer. If an outlet is found for the digestate, then only foul water from the welfare facilities and the truck and building washdowns will be discharged, resulting in lower concentrations of the above parameters.

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

Emission Point or Area:

NOT APPLICABLE There will be no emissions to groundwater.

Emission Point/Area Ref.	Nº:								
Emission Pathway: (borehole, well, percolation soakaway, landspreading, e									
Location:									
Grid Ref. (10 digit, 5E,5N)	:								
Elevation of discharge: (relative to Ordnance Datus	m)								
Aquifer classification for receiving groundwater body:									
Groundwater vulnerability assessment (including vuln rating):	erability		only any other us	<u></u>					
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:									
Identity and proximity of so water bodies at risk:	urface Fo	instruction							
Emission Details:	Olli	PPICABLE							
(i) Volume to be emi	tted								
Normal/day		m ³	Maximum/day	7	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 (<i>start-up/shutdown to be included</i>):								
Periods of Emission (a	avg)		min/hr	hr/day	day/yr				



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

Source	Emission point Ref. No	point Ref. No dBA at reference Sound Pressure ¹ Levels dB(unweighted) per band									Impulsive or tonal qualities	Periods of Emission		
				31.5	63	125	250	500	1K	2K	4K	8K		
1. For items o	f plant sound pov	ver levels may be	e used.					. USE.						
	_	_	et the likely noise fix 1of Attachme	for the	activity act	ties on the state of the state	site. T	This table	was c	comple	eted a	s part	of that assessm	ent.

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TABLE F.1: ABATEMENT / TREATMENT CONTROL

Emission point reference number : A1

Control ¹ parameter	Equipment ²	Equipment maintenance	Equipment calibration	Equipment back-up
Extraction	Air handling unit - pressure gauge -pumps Biofilter which is a biotrickling filter on an inorganic clay bed Activated carbon polishing unit.	As per O&M manual	As per O&M manual	No applicable

Control ¹ parameter	Monitoring to be carried out out out	Monitoring equipment	Monitoring equipment calibration
Extraction	Flow Pressure Consent of Consent	BAT	BAT

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

Emission point reference number : <u>A3</u>

Control ¹ parameter	Equipment ²	Equipment maintenance	Equipment calibration	Equipment back-up
Methane Oxygen Flow	Combustion engine	As per O&M manual	As per O&M manual	Biogas Flare

Control ¹ parameter	Monitoring to be carried out ³	Monitoring equipment	Monitoring equipment calibration
Methane Oxygen Flow Temperature	Inlet and outlet gases and combustion temperature	BAT On purposes only any other use. On purposes only any other use.	BAT

List the operating parameters of the treatment / abatement system which control its function.

List the equipment necessary for the proper function of the abatement / treatment system.

List the monitoring of the control parameter to be carried out.

Emission point reference number : <u>A4</u>

Control ¹ parameter	Equipment ²	Equipment maintenance	Equipment calibration	Equipment back-up
Methane Oxygen Flow Temperature	Enclosed high temperature flare	As per O&M manual	As per O&M manual	Not Applicable. This is a back up unit.

		age.	
Control ¹ parameter	Monitoring to be carried out ³	Monitoring equipment	Monitoring equipment calibration
Methane Oxygen Flow Temperature	Annual stack emissions monitoring for control parameters and parameters as per Table E.1.(iii) A4 Consent of control parameters are per Table existence of the control parameters as per Table existence of the control parameters as per Table existence of the control parameters are per Table existence of the control parameters and parameters are per Table existence of the control parameters and parameters are per Table existence of the control parameters and parameters are per Table existence of the control parameters and parameters are per Table existence of the control parameters and parameters are per Table existence of the control parameters and parameters are per Table existence of the control parameters are per Table existence of th	BAT es d'foi on piroperine onner require	BAT

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

Emission point reference number : <u>SW1</u>

Control ¹ parameter	Equipment ²	Equipment maintenance	Equipment calibration	Equipment back-up
Attenuation	Attenuation pond and interceptor	Regular maintenance of pond and cleaning of interceptor. Regular check on shut off valve.	Not applicable	Not Applicable.

Control ¹ parameter	Monitoring to be carried out ³	Monitoring equipment	Monitoring equipment calibration
Attenuation	As per C.2.3 of Waste Licence W0234-01	Surface water scoop Bottlewear Handheld pH, conductivity, Temperature and DO meters.	Not applicable

se.

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



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

Table F2 Emissions to Air

Emission Point Reference No(s). : A1

Parameter	Monitoring frequency	Accessibility of Sampling Points
As per Schedule	As per Schedule C.1.2 of	Stack monitoring requiring
C.1.2 of Waste	Waste Licence W0234-01	scaffolding to access outlet gas
Licence W0234-01		monitoring.

Table F2 Emissions to Air

Emission Point Reference No(s). : A3 and A4

Parameter	Monitoring frequency	Accessibility of Sampling Points
As per parameters	Annually	Stack monitoring requiring
listed in Table		scaffolding to access outlet gas
E.1.(iii) and control		monitoring.
parameters		1. 30
	್ದರ	801 gg.,

Emission Point Reference No(s). : SW Rection Point Reference No(s).

Parameter	Monitoring frequency	Accessibility of Sampling Points
Monitoring to be carrie		Good
Schedule C.2.3 of the e	xisting waste licence W0234-	
01.		

Table F4 Emissions to Sewer

Emission Point Reference No(s). : FW1

Parameter	Monitoring frequency	Accessibility of Sampling Points
	d out in accordance with	Manhole on site – Good.
	xisting waste licence W0234-	
01.		



Table F4 Potential Emissions to Groundwater *Emission Point Reference No(s)*. : BH1 and BH2

BH1 258393 109643 BH2 258208 109579

Parameter	Monitoring frequency	Accessibility of Sampling Points		
Monitoring to be carried out in accordance with Schedule C Groundwater Monitoring of the existing waste licence W0234-01.		Good		

In addition, location of leak detection system to be agreed with the Agency prior to commencement of operations

Table F6 Waste Emissions – Not Applicable

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

Monitoring Point Reference No: N1, N2, N3, NS1 and NS2 (Noise Monitoring)

Parameter	Monitoring frequency	Accessibility of Sampling point
Noise	Annually	Good

The noise monitoring locations are in place on site in keeping with the existing waste licence W-234-01. It is not proposed to prefix each of the locations with an A unless the EPA specifically requests it.

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

Ref. Nº or Code	Material/ Substance ⁽¹⁾	CAS Number	Danger ⁽²⁾ Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R ⁽³⁾ - Phrase	S ⁽³⁾ - Phrase
n/a	Ferric Chloride	7705-08-0			To be confirmed	Additive to AD process	R20/21/ 22	S24/25
n/a	Activated Carbon	7440-44-0	Irritant	1 tonne per month	12 tonnes	Biofilter off gas treatment	R38	S24/25

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

- 2.

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

Waste material	EWC Code	Main source ¹	Qı	uantity	On-site Recovery/Disposal	Off-site Recovery, reuse or recycling	Off-site Disposal
			Tonnes / month	m ³ / month	(Method & Location)	(Method, Location & Undertaker)	(Method, Location & Undertaker)
Spent Activated Carbon	19 01 10	From Biofilter operation	Torinspection of the section of the section of copyright own	3.4 MIROSES ONLY TO ANY OTHER LISS MIROSES ONLY TO ANY OTHER	<i>y</i>		Under agreement with licenced operator

 $^{^{1}\,\,}$ A reference should be made to the main activity / process for each waste.

Consent of convingence to the receipt of the range of the range of the convingence of the range of the range



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

Waste material	EWC Code	Main source ¹	Qua	ntity	On-site recovery/disposal ²	Off-site Recovery, reuse or recycling	Off-site Disposal	
			Tonnes / month	m ³ / month	(Method & Location)	(Method, Location & Undertaker)	(Method, Location & Undertaker)	
Metals, Plastics, Stones, Glass	19 12 02, 19 12 03, 19 12 04, 19 12 12	Solid waste pre- treatment,	56	50	Not applicable	Transported off site by a waste collection permit holder to an authorised facility for recovery.	Not applicable	
Office and canteen waste (dry recyclables and residual waste)	20 03 01	On site staff activities	0.05	Purposes edited fo	Not applicable	Dry recyclables will be transported off site by a waste collection permit holder to an authorised facility for recovery.	Residual waste will be transported off site by a waste collection permit holder to an authorised facility for treatment or disposal depending on the waste contractor employed.	
A reference should be made to the main activity/ process for each waste. The method of disposal or recovery should be clearly described and referenced to Advantment H.1 Consent of Conse								



Table I.2(i) SURFACE WATER QUALITY

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

Parameter	(mg/l)			Sampling method ² (grab, drift etc.)	Normal Analytical Range ²	Analysis method / technique	
	Date	Date	Date	Date	use.		
pН					ther		
Temperature					oses of other other		
Electrical conductivity EC					es afoi		
Ammoniacal nitrogen NH ₄ -N				· · ·	Positied		
Chemical oxygen demand				.017	tog.		
Biochemical oxygen demand				Dection wined			
Dissolved oxygen DO				of insight			
Calcium Ca				to obly			
Cadmium Cd			×	St.			
Chromium Cr			-118011				
Chloride Cl			Cox				
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					Je.		
Zinc Zn					ther		
Total alkalinity (as CaCO ₃)					14. 404 or		
Total organic carbon TOC					25 OF OF 18		
Total oxidised nitrogen TON				.3	205 ited		
Nitrite NO ₂				an Po	tode		
Nitrate NO ₃				action with			
Faecal coliforms (/100mls)				(inSplate			
Total coliforms (/100mls)				to Shire			
Phosphate PO ₄				of			



Table I.4(i) GROUNDWATER QUALITY

As per AER 2008 of W0234-01

(Sheet 1 of 1) Monitoring Point/ Grid Reference: BH1

Parameter	Results (mg/l)	Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	Date			
pН	06-03-08	Discrete sample	6.91	Meter in lab
Electrical conductivity EC	06-03-08	Discrete sample	0.554	Meter
mS/cm			,	et it
Ammoniacal nitrogen NH ₄ -N	06-03-08	Discrete sample	<0.2	Spectrometry
Chloride Cl	06-03-08	Discrete sample	29 only all	KONE
Total Ammonia	06-03-08		<0.2	Calculation
VOCs	06-03-08	Discrete sample	<0.00 5	GCMS
Semi VOCs	06-03-08	Discrete sample	6 0.001	GCMS

Groundwater samples collected with a pump following purging. Samples collected in bottlewear for transfer to lab.

Monitoring Point/ Grid Reference: BH2

Parameter	Results (mg/l) Date	Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
pН	06-03-08	Discrete sample	7.25	Meter in lab
Electrical conductivity EC	06-03-08	Discrete sample	0.567	Meter
mS/cm		_		
Ammoniacal nitrogen NH ₄ -N	06-03-08	Discrete sample	< 0.2	Spectrometry
Chloride Cl	06-03-08	Discrete sample	39	KONE
Total Ammonia	06-03-08		< 0.2	Calculation
VOCs	06-03-08	Discrete sample	< 0.005	GCMS
Semi VOCs	06-03-08	Discrete sample	< 0.001	GCMS



WASTE Application Form TAable I.4(i) GROUNDWATER QUALITY Cont'd

Monitoring Point/ Grid Reference: BH3

Parameter	Results (mg/l)	Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	Date			
pН	06-03-08	Discrete sample	6.82	Meter in lab
Electrical conductivity EC	06-03-08	Discrete sample	0.359	Meter
mS/cm				
Ammoniacal nitrogen NH ₄ -N	06-03-08	Discrete sample	< 0.2	Spectrometry
Chloride Cl	06-03-08	Discrete sample	39	KONE
Total Ammonia	06-03-08		< 0.2	Calculation
VOCs	06-03-08	Discrete sample	< 0.005	© GCMS
Semi VOCs	06-03-08	Discrete sample	<0.00124.201	GCMS



Table I.6 (i): AMBIENT & BACKGROUND NOISE ASSESSMENT

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

	National Grid Reference	,	Sound Pressure Levels				
	(5N, 5E)	L(A) _{eq}	$L(A)_{10}$	$L(A)_{90}$			
1. SITE BOUNDARY							
Location 1:	258346 109525						
Location 2:	258335 109640						
Location 3:	258228 109517			Jeo.			
2. NOISE SENSITIVE LOCATIONS				and any other tree.			
Location 1:	258407 109943	62	66	50			
Location 2:	258794 109514	66	50 natived	48			

NOTE: All locations should be identified on accompanying drawings.

Baseline noise was not measured at on site locations N1, N2 and N3. Noise monitoring and predictive modelling was carried out in respect of this waste licence review and is included in Attachment E.5 Noise Emissions.



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