

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*.

Refer to Table G.1 in Annex 1 Standard Forms.

Attachment included	yes <input type="checkbox"/>	no <input checked="" type="checkbox"/>	not applicable <input type="checkbox"/>
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G.2 Energy Efficiency

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

Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
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Attachment G.2 Energy Efficiency

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ATTACHMENT G.2 - ENERGY EFFICIENCY

In accordance with the Best Available Techniques Reference Document (BREF) on Waste Incineration the Dublin Waste to Energy facility has been designed and optimised to achieve a very high overall energy efficiency and energy recovery, taking into account the techno-economic feasibility and the availability of users for the energy so recovered.

Due to the present limited availability of users of district heating in the Dublin area, currently the Facility is designed with the aim of optimising the power output. The design thus results in a net power output of close to 60 MW equivalent to a net power efficiency of approx 29%.

Plant data (expected values)	Value
Lines	2
Capacity per line	~ 105 MW
Net power efficiency	~29%
Net power output (excl. grid loss factor)	~ 60 MWe

The site on the Poolbeg Peninsula was selected partly due to the close proximity to a potential future district heating network in the Dublin Docklands Areas. In this respect, the Facility will be constructed with built-in provisions for the supply of district heating to the city of Dublin when a future district heating scheme is implemented.

The optimum steam parameters for the Dublin Waste to Energy facility of approx 45 bar/400 °C were selected taking into account the additional maintenance cost of higher steam parameters compared to the achievable power price. To reduce the effects of corrosion, part of the boiler will be protected with nickel/chromium alloy claddings.

The turbine design has been selected in order to optimise the power output and thus the electricity supply regime, as no heat supply regime is in place at present. In particular the condenser pressure will be minimised by using cooling water from the Liffey Estuary thus securing a higher electrical efficiency compared to that achieved by using air-cooled condensers and/or wet cooling towers

The in-house energy demand will be reduced to the widest possible extent taking into consideration the costs and advantages of each design point. The following design selections are particularly important in this respect:

- The flue gas treatment systems will be designed and ordered in such a way that flue gas reheating will be avoided.
- The SNCR system will be used as an alternative to the more energy-consuming SCR technique.
- Plume suppression is not proposed as it would require wasteful internal energy consumption

For further details on Best Available Techniques implemented in the design, please see Appendix 5.1 of the EIS.

SECTION H MATERIALS HANDLING

H.1 Waste Types and Quantities – Existing & Proposed

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

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

Waste Management Act 3rd Schedule (Disposal) Activities			Waste Management Act 4th Schedule (Recovery) Activities		
Class of Activity Applied For		Quantity (tpa)	Class of Activity Applied For		Quantity (tpa)
Class 1			Class 1		
Class 2			Class 2		
Class 3			Class 3	X	
Class 4			Class 4	X	
Class 5			Class 5		
Class 6	X		Class 6	X	
Class 7	X		Class 7		
Class 8	X	600,000	Class 8	X	
Class 9			Class 9	X	
Class 10	X		Class 10		
Class 11	X		Class 11		
Class 12	X		Class 12		
Class 13	X		Class 13	X	

The maximum annual tonnage has been assigned to Class 8 (Third Schedule) which is the principle activity proposed for the Facility. Details of quantities relating to all additional classes will be furnished to the Agency within six months of commencement of operations.

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

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

Year	Non-hazardous waste (tonnes per annum)	Hazardous waste (tonnes per annum)	Total annual quantity of waste (tonnes per annum)
0-30	600,000	0	600,000

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) (see note 1)	TOTAL (over life of site) tonnes (see note 1)
Household	Not applicable	0-600,000	0-18,000,000
Commercial	Not applicable	0-600,000	0-18,000,000
Sewage Sludge (see note 2)	Not applicable	0-80,000	0-2,400,000
Construction and Demolition	Not applicable	Not applicable	Not applicable
Industrial Non-Hazardous Sludges	Not applicable	0-80,000	0-2,400,000
Industrial Non-Hazardous Solids	Not applicable	0-600,000	0-18,000,000
Hazardous *(Specify detail in Table H 1.2)	Not applicable	0	0
Inert Waste imported for restoration purposes	COMPLETE FOR LANDFILL & CONTAMINATED LAND FACILITIES ONLY		

Note 1: This application is being made for Household, Commercial and Non Hazardous Industrial waste which in aggregate is not to exceed 600,000 tonnes per annum. The detailed split of the types of waste is unknown at the time of submission of this application

Note 2 In the event that land spreading of sludge will no longer be an option due to environmental constraints, it will be possible to pump the sludge directly to the proposed WtE facility for thermal treatment

*** TABLE H.1.2 HAZARDOUS WASTE TYPES AND QUANTITIES**

HAZARDOUS WASTE	DETAILED DESCRIPTION * REFERENCE SHOULD BE MADE TO THE RELEVANT EUROPEAN WASTE CATALOGUE CODES AS PRESENTED BY COMMISSION DECISION 2000/532/EC	Tonnes Per Annum (Existing)	(Tonnes Per Annum Proposed)
Waste Oil	Not applicable	Not applicable	Not applicable
Oil filters	Not applicable	Not applicable	Not applicable
Asbestos	Not applicable	Not applicable	Not applicable
Paint and Ink	Not applicable	Not applicable	Not applicable
Batteries	Not applicable	Not applicable	Not applicable
Fluorescent Light Bulbs	Not applicable	Not applicable	Not applicable
Contaminated Soils	Not applicable	Not applicable	Not applicable
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)			
Not applicable	Not applicable	Not applicable	Not applicable

Attachment H.1 should contain any relevant additional information.

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

H.2 Waste Acceptance Procedures

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

Management

The General Manager will be responsible for the operation of the Facility. The daily reception of waste will be planned and coordinated by the Operations Manager with whom any questions regarding waste delivery and acceptance of waste will be addressed.

It will be the responsibility of the Operations Manager to issue identification cards to the drivers from the waste delivery companies.

Waste Acceptance Procedures

When a waste vehicle arrives at the facility it will be weighed and catalogued electronically at the weighbridge, either by the driver swiping a magnetic card or by automatic recognition of an electronic chip. If the consignment has no chip or magnetic card, the driver will be required to report to the operations personnel and provide details such as the waste type and source and the waste permit number. Only pre-approved types of waste, from pre-approved sources, transported by appropriately permitted contractors will be accepted at the facility.

Each outgoing waste vehicle will be weighed and catalogued electronically before it leaves the facility.

WASTE Application Form - Dublin Waste to Energy

To ensure all waste accepted at the Facility complies with the proposed waste acceptance criteria random sampling of the received waste will be carried out.

Waste lorry loads for sampling will be selected randomly and automatically in the weighing control system. In addition, the staff at the Facility will point out waste lorry loads for checking, if it is considered necessary to prove that the waste is in accordance with the license conditions

After being selected for sampling the driver will be instructed to drive to a dedicated waste inspection/quarantine area in the waste reception hall. This waste inspection/quarantine area will comprise of dedicated impermeable area with all drainage directed for use within the Facility. The inspection/quarantine area will be of a suitable size for the inspection of waste and the subsequent quarantine where required. Here the waste lorry unloads the waste and a skilled person will perform visual inspection of the waste.

If the waste is accepted, it will be transported to the waste bunker.

If the waste is refused, the waste collection company will be responsible for removing the waste from the waste inspection/quarantine area.

The skilled person will fill in a waste sampling record documenting each waste sampling performed. This record will also be signed by the driver from the waste collection company. The waste sampling record is enclosed in Attachment H.2 Waste Acceptance Procedure. The record will be filed by the administration of the Facility.

In the event that land spreading of sludge will no longer be an option due to environmental constraints, it will be possible to pump the sludge directly to the proposed WtE facility for thermal treatment. Sludge received from Ringsend Wastewater Treatment Works will be pumped to the Facility through a pipeline. The chemical composition of the sludge will be sampled at the Ringsend Wastewater Treatment Works.

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Attachment H.2 Waste Sampling Record

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Coordinated control of waste received at the Dublin Waste to Energy Facility

After completion of this form, please send a copy to the waste collector

Date: _____

Weigh ID: _____

Card no.: _____

Observer: _____

Time: _____

Carrier's/driver's name: _____

Vehicle reg. no.: _____

Waste from: _____

Compacting collection vehicles

Container

Trailer/truck

The waste is classified as:

- Household waste
- Bulky waste, minor combustibles
- Industrial waste, minor combustibles
- Bulky waste, large items for shredders
- Industrial waste, large items for shredders
- Other: _____

- Suitable for landfill
- Garden refuse, twigs, branches and park refuse
- Concrete
- Bricks
- Concrete, bricks, rubble
- Soil
- Other: _____

Acceptance of load:

- Load accepted
- Load accepted with the following remarks, see below
- The load is re-classified as _____
- The load is rejected on the following grounds, see below
- Load not accepted. The below items must be removed before treatment.

Fee _____

Reason for rejection:

- Hazardous waste, eg fluorescent tubes, paint, oil and similar
- Iron and metal
- Cardboard and paper
- Plastic film
- Windows with wooden frames

- Waste declaration is missing
- Waste suitable for landfill
- Electronic scrap material
- Waste suitable for incineration
- Other: _____

Separation:

- The load is not separated at the facility
- The load is separated at the facility

Remarks:

Signature (Carrier)

Signature (Observer)

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*.

Please see Attachment H.3

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

Not Applicable

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Attachment H.3 Waste Handling

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ATTACHMENT H.3 WASTE HANDLING

General

All waste will arrive to the facility by waste trucks entering the Site and the Waste Reception Hall, where the waste trucks unload the waste into the Waste Bunker.

In the Waste Bunker the waste will be mixed before it enters the waste feed hopper and the grate system for combustion.

The detailed waste handling procedure from the time the waste arrives to the facility until the waste is fed into the waste feed hopper is described below.

Reference is made to the following drawings:

- UET/BE005, Site view
- U/BF002, Plan view

Waste arrivals to the Site

The waste will arrive to the Site in a waste truck. The truck will enter the Site through the access gate from a right turn lane established on Pigeon House Road. The right turn lane will be established to prevent any queuing of traffic on Pigeon House Road.

The security building located just inside the Site on the left side of the entrance road will be manned 24 hours a day. The security guard will refuse admission of any unauthorized waste collector and will also, in case of an emergency situation, be the first facility employee to meet any emergency team coming from outside the Facility.

Weighing

After entering the Site the waste truck will continue to the weighbridge for ingoing traffic, located on the site access road after the security building. At the weighbridge the waste truck will be registered and weighed. For details regarding the weighbridge and procedures reference is made to Attachment D.1, Infrastructure; Section D.1.d, Plant (Weighbridge, including capacity, dimensions, record-keeping system) of this Waste Licence Application.

At the weighbridge certain waste loads will be identified for spot checks. Reference is made to Section H.2, Waste Acceptance Procedure of this Waste Licence Application.

Entrance to the Waste Reception Hall

After weighing the waste truck will continue up the ramp and into the Waste Reception Hall. The Waste Reception Hall and the Waste Bunker will be enclosed areas.

After entering the Waste Reception Hall, the waste truck will reverse into one of the twelve tipping bays to the Waste Bunker. The control system and the operator will determine which tipping bays to use when the waste truck is registered at the weighbridge. The available tipping bays will be marked with green traffic light signals. The waste truck will unload the waste into the waste bunker.



Figure H.3.1 Unloading of waste in a Waste Reception Hall in an existing waste to energy facility

When the waste has been unloaded into the Waste Bunker the waste truck will leave the Waste Reception Hall down the ramp. The waste truck – now empty – will be registered and weighed again on the weighbridges for outgoing traffic, before leaving the site through the entrance gate to Pigeon House Road.

Waste Bunker area

In the Waste Bunker the waste will be mixed by one of the two waste cranes to create a mix of waste with a homogeneous calorific value.

Waste parts, which are too large to feed into one of the two waste hoppers, will be fed by one of the two waste cranes into the shredder for crushing. From the shredder the crushed waste is returned to the Waste Bunker. One of the two waste cranes then mixes the crushed waste with other waste.

Finally the mixed waste is fed into one of the two waste hoppers and the waste is combusted on one of the two grates.

H.4 Waste Arisings

Waste Arisings should be considered for all contaminated soil applications. Details of all waste materials generated on the site including, name, description and nature as well as the source(s) should be identified. The quantities of each type of waste generated on an annual/monthly basis should be calculated and stated in Tables H.1(i) and H. 1(ii) of the application form. Applicants should also provide conversion factors used to relate volume (m³) and tonnage (t) for their waste stream.

Solid residues, in the form of bottom ash and flue gas treatment residues, will be generated continuously throughout the year from the Facility.

For a more detailed description, please see attachment H.4 and/or Chapter 10 "Residues and Consumables" of the EIS

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Attachment H.4 Waste Arisings

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ATTACHMENT H.4 - WASTE ARISING

Solid residues arising from the operation of the Facility

General

There will be three main solid residues from the Dublin WtE facility:

- a) Bottom ash
- b) Boiler ash
- c) Flue gas treatment residues

The types and approximate quantities of the main types of ash and residues which are expected to be produced by the proposed Dublin WtE facility during operation are detailed in table below

Ash Type	Tonnes/annum
Bottom Ash	120,000
Boiler Ash	3,000
Flue Gas Treatment Residues	24,000
Total	147,000

The characteristics of the residues are described in more detail in the following sections.

Bottom ash

Residue left at the end of the grate after the burnout of the waste is known as bottom ash. The bottom ash will consist of inert material from the combustion process such as silicates, minerals, ferrous and non-ferrous metal pieces and glass.



Figure 2 Bottom ash from the Elsam Odense Waste to Energy facility

Bottom ash will account for the bulk of the ash arising from the combustion process. It is estimated that approximately, 20% of waste input by weight, will be bottom ash.

Boiler ash

Boiler ash will consist of compounds that will be carried over in the first three passes of the boiler. It can contain a higher concentration of heavy metals than the bottom ash. About 0.5% by weight of the waste input will be collected as boiler ash. The ash will arise from the regular operation and cleaning of the boiler.

Flue gas treatment residues

The flue gas treatment residues will consist of a mix of reaction products, excess lime and spent activated carbon which will be collected in the fabric filters. Ash from the fourth pass of the boiler (also known as fly ash) will be included with the flue gas treatment residues. The residues comprise a complex composition of minerals, organic materials, heavy metals and salts, which are leachable.

The quantity will depend on the composition and characteristics of the waste. It is estimated that the flue gas treatment residues will approximately be 4% by weight of the waste input.

Miscellaneous Other Materials

There will also be minor quantities of other materials. Material that is likely to be disposed of off-site will include the fabric filters for the FGT systems, consumables used in day-to-day operation, maintenance and improvement works and, e.g., machinery oils and chemical cleaning solutions.

Typically, the fabric filters for the FGT systems on each line will be replaced every 36 months. This will involve on average a total weight of less than 1 tonne each time.

Methodology for handling of residues

Bottom ash

After the burnout of the waste at the end of the grate, the bottom ash falls via the bottom ash chute down into a water bath of the wet ash extractor.

The bottom ash will be cooled in the water bath by evaporation. From the water bath, the ash removed by the bottom ash extractor is discharged onto a belt or a vibrating conveyor. The bottom ash residues will be transported via belt conveyors or vibrating conveyors to the bottom ash bunker for temporary storage.

The bottom ash bunker will be covered and will have a capacity to store approximately 10,000 tonnes of bottom ash, which would be equivalent to 1 month of normal operation of the facility. The ash bunker will be constructed of reinforced concrete.

The bottom ash will be temporarily stored on-site in the bottom ash bunker. When a vessel is available in the harbour, the bottom ash will be transported in HGV containers from the facility to the harbour terminal located on the other side of Pigeon House Road. From here the bottom ash will be loaded onto the vessel using the loading system of the port. When the vessel is in port, the loading may take place on a 24 hour basis.

Boiler ash

Boiler ash will arise from two different on-line cleaning techniques, which will reduce dust accumulation in the boiler. The systems to be put in place will comprise:

- a) Mechanical rapping for cleaning the horizontal pass
- b) High or low -pressure water spraying for cleaning the empty passes

It will be possible to discharge boiler ash from the 2nd and 3rd passes of the boiler to a number of steel plate hoppers installed at the bottom of the passes. These hoppers will collect the boiler ash separated in the vertical and the horizontal passes.

During the initial operation of the facility the boiler ash will be mixed with the flue gas treatment residues until the typical levels of contaminants in the boiler ash has been established. Based on sampling and analysis of the boiler ash, it will be assessed for mixing with the flue gas treatment residues or the bottom ash.

Flue gas treatment residues

The flue gas treatment residues retained in the fabric filters will be dislodged into hoppers beneath the fabric filters and will be transported pneumatically to the enclosed flue gas treatment residues silos. The silos will be located west of the flue gas treatment equipment, having a gross volume of 700 m³.

The silos will be equipped with High Efficiency Particulate Abatement (HEPA) filters to prevent fugitive emissions of ash. The ash will be transported off site in closed containers see figure below and will be shipped to Continental Europe for disposal from a container terminal on the southside of Dublin Port. No treatment of the flue gas treatment residues (or boiler ash), will take place on site.



Figure.2 Proposed sealed 40 feet container to transport flue gas treatment residues

In connection with the annual overhaul of the flue gas system, 50 m³ of hazardous water is generated. This water will be discharged into a sump in an enclosed concrete tank with sufficient capacity to hold the water.

The sludge is removed from the tank by means of a gully emptier and loaded into a tanker. The sludge is then exported to Europe for treatment.

Grate siftings

Grate siftings is fine ash that falls down through the grate bars of the furnace. This ash is not of the same burnout quality as bottom ash. The grate siftings are collected in hoppers under the grate and transferred by conveyor belt to the bottom ash bunker.

Overview of process control

The ash collection and handling systems may be controlled locally or may be controlled by the central control system and also monitored by CCTV. The flue gas treatment residue silos will have level indicators to indicate when the silos are reaching full capacity.

Emissions to the environment during normal and abnormal operations

There will be no emissions from the solid residue handling operation during normal operations. The only potential atmospheric emission from the storage and handling process will be that of fugitive windblown ash emissions. The residues handling, storage and loading areas will be enclosed, eliminating the potential for windblown ash. To remove any potential for windblown ash, all trucks carrying bottom ash from the plant will be covered. Flue gas treatment residues will be taken off site in sealed containers. Boiler ash will be transported offsite with either the bottom ash or the flue gas treatment residues.

Classification of the different residues

General

The classification of the residues as hazardous or not is made by reference to the classification set out in the European Waste Catalogue (EWC) and Hazardous Waste List. If the residue does not contain the properties listed in H1 to H14 of the 'Waste Catalogue and Hazardous Waste List', and Annex III of the Hazardous Waste Directive 91/689/EEC, it is non-hazardous.

The EPA has published a document, which provides a consolidated version of the relevant EU legislation – *European Waste Catalogue and Hazardous Waste List, Valid from 1 January 2002*. The document is based on the following EU legislation:

Commission Decision 2000/532/EC (OJ L 226, 6.9.2000, p.3)

As amended by:

Commission Decision 2001/118/EC (OJ L 47, 16.2.2001, p.1)

Commission Decision 2001/119/EC (OJ L 47, 16.2.2001, p.32)

Commission Decision 2001/573/EC (OJ L 203, 28.7.2001, p.18)

Bottom ash

This type of bottom ash is listed in the European Waste Catalogue (EWC) under "Waste from incineration or pyrolysis of municipal and similar commercial, industrial and institutional wastes" under the term "Bottom ash and slag" with the EWC code 19 01 12 and deemed non hazardous.

Boiler ash

The boiler ash could either be hazardous or non-hazardous, depending on the composition of waste in the Dublin area.

If the boiler ash proves to be non-hazardous (EWC Code 19 01 16), it will be suitable for mixing with the bottom ash for shipment off site for treatment and reuse. However, if the boiler ash is deemed to be hazardous (EWC Code 19 01 15), it will be mixed with the flue gas treatment residues for shipment offsite and disposal.

Flue gas treatment residues

It is expected that this residue will be classified as suitable for disposal in a hazardous waste landfill. The flue gas treatment residues could be either hazardous or non-hazardous for transport (EWC Codes 19 01 13 or 19 01.14 respectively).

Leachate testing on residues

A leachate test on the residue will be carried out and the results will be compared with the requirements of the Directive. This will ultimately determine, if the residue is suitable for disposal to a

non-hazardous landfill in accordance with the Landfill Directive (99/31/EC) and the EU Council Decision (2003/33/EC).

Re-use/disposal of solid residues

Bottom ash

Bottom ash from waste incineration in EU countries, is used in road construction or as railway ballast, following treatment in an ash recycling plant. The bottom ash will be transported off site for pre-treatment prior to end use or disposal.

In the longer term, it is intended to reuse the bottom ash in Ireland in connection with road works and similar projects. Until Irish legislation is introduced enabling the use of bottom ash and such time as the market for re-use of bottom ash in Ireland develops, the bottom ash will be exported by ship from Dublin Port for reuse in Europe. In order to meet the specifications set for its re-use in, bottom ash will be aged, screened and crushed abroad. Magnetic separation of ferrous metals from the bottom ash will be undertaken.

Boiler ash

If the boiler ash proves to be non-hazardous (EWC Code 19 01 16), it will be suitable for mixing with the bottom ash for shipment off site for treatment and reuse. However, if the boiler ash is deemed to be hazardous (EWC Code 19 01 15), it will be mixed with the flue gas treatment residues for shipment offsite and disposal.

Flue gas treatment residues

Flue gas treatment residues will be classified as hazardous waste for disposal, but may be reused as backfill material for disused mines in Northern Europe. Alternatively, it must be disposed of in a hazardous waste landfill.

Although it is an objective of the EPA's National Hazardous Waste Management Plan to develop hazardous waste landfill capacity in Ireland, there is currently no such facility. If, at the time of commissioning of the waste to energy plant, there is no hazardous waste landfill in Ireland, the flue gas treatment residues will be exported for final disposal. The flue gas treatment residues will be exported in closed containers to ensure there are no emissions.

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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.

Atmospheric emissions from the facility are not likely to impair on the environment. The impact of emissions to air from the activity, on air quality and the environment, are addressed in detail in Chapter 8 of the EIS, which accompanies this application. The significant emissions from the activity are described and quantified in Chapter 8 of the EIS. The dispersion modelling, undertaken in the course of preparation of the EIS, is described and the predicted ground level concentrations compared with environmental quality standards and other relevant criteria. Information on the receiving environment is also provided in Chapter 8 of the EIS.

I.2. Assessment of Impact on Receiving Surface Water

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

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

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

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

Please refer to Chapters 12 and 15 of the EIS for details regarding the impact to receiving surface waters.

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**.

The only emissions to sewer from the activity will be surface water run-off and foul sewage.

Surface water from roofs, roads and hard-standings in the activity will be collected for reuse in the process. Any surface water, in excess of process requirements, or which is collected when the plant is shut down, will be discharged to the Dublin City sewer via an oil interceptor and silt trap.. The surface water discharge is not likely to have any negative effect on the environment or on integrity of the sewer.

Foul sewage from the facility will be discharged to a Dublin City Council combined sewer, which discharges to the Ringsend Wastewater Treatment Works. The foul sewage discharge is not likely to have any negative effect on the integrity of the sewer or on the Ringsend Wastewater Treatment Works.

I.4 Assessment of impact of ground/groundwater emissions

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

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

There will be no emissions to ground or groundwater from the activity. Infrastructure and procedures will be in place to prevent any accidental spills or leaks entering the ground or groundwater. These are described in Attachment J1 of this application and in Chapters 5 and 11 of the EIS.

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 ($\leq A3$), documentation, including containment engineering, remedial works, and any other supporting information should be included in **Attachment I.5**.

Please refer to Chapter 11 of the EIS.

I.6 Noise Impact.

Please refer to Chapter 9 of the EIS.

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 large scale waste facilities such as landfill or incinerator developments. An assessment of the ecology should form **Attachment I.7**. Comprehensive guidelines are contained in the *Application Guidance Note*

The ecology of the site and surrounding area is described in Chapters 14 and 15 of the EIS. These chapters also describe any Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas in the vicinity of the site. The likely impacts of the activity on the flora and fauna on the site and in the vicinity, and on the designated sites, are assessed in Chapters 8, 12, 14 and 15.

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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**.

In this section the proposed measures, including emergency procedures, to minimise the impact on the environment of an accidental emission or spillage in the facility are described.

The provisions, which will be made, for response to emergency situations outside of normal working hours, i.e. during night-time, weekends and holiday periods are also outlined. The methods for the storage, transport and handling of materials on the site are described. The potential points of contamination and areas most at risk are identified and the measures to be implemented to contain the spills are described.

Please refer to Attachment J .1. Accident Prevention and Emergency Response.

Drawings of the site drainage systems are provided, please see Drawing UZT/BE0006.

Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
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Attachment J.1

Accident Prevention and Emergency Response

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ATTACHMENT J. 1 - EMERGENCY RESPONSE PLAN AND PROCEDURES

General

The Dublin Waste to Energy facility will have in place a number of systems to prevent emergency situations arising and to minimise their consequence. These systems will comprise management systems, procedures and plant and equipment designed to prevent operational failures and accidents and to respond in the event of an incident.

Management Practices

The Dublin Waste to Energy facility will implement a comprehensive set of management practices and standard operating procedures for the operation of the plant, which will minimise the risk of accident or emergency situations arising. The standard operating procedures will cover spill prevention, accident and fire prevention, worker health and safety, and will comply with safety, health and welfare regulations, according to the ISO 14001 and OHSAS 18001 Standards.

The good housekeeping practices will ensure that a clean and orderly work environment is maintained in all areas of the facility. Clean and orderly work areas and well maintained equipment will reduce the possibility of accidental spills caused by mishandling of hazardous materials and equipment, will reduce safety hazards to plant personnel and will reduce the potential for environmental contamination.

The Dublin Waste to Energy facility will have standard operating procedures (SOPs) for good housekeeping practices that will include the following requirements:

- Maintain dry and clean floors
- Keep outside areas free of litter and debris
- Maintain process areas and storage areas in a clean and orderly manner
- Keep materials in storage areas until they are required for operations and return materials to storage areas when they are no longer required
- Make sure equipment is operating properly
- Routine inspection for leaks or conditions that could lead to discharges or spills of hazardous materials
- Ensure that spill cleanup procedures are understood by employees
- Provide adequate aisle and circulation space to facilitate materials transfer and easy access
- Keep an up-to-date inventory of all hazardous and non-hazardous materials on the site
- Identify and properly label all hazardous materials present on site. Clearly mark those that require special handling.

Workforce Qualifications and Training

The Dublin Waste to Energy facility will employ staff with the appropriate qualifications and experience for the function and level of responsibility with which they are entrusted. All staff will receive the training necessary to fulfil their specific duties. The training will include the standard operating procedures, safe work practices, requirements of the regulatory agencies, environmental protection and emergency response. Refresher training will be provided at regular intervals and as dictated by audits of the standard operating procedures.

Standard Operating Procedures

The Dublin Waste to Energy facility will put in place a detailed set of standard operating procedures for all process related site activities. These will identify safe operating techniques and procedures to minimise the risk of spills or emergency situations arising.

Emergency Response Plan

A written site emergency plan with detailed descriptions of the Emergency Response Procedures will be prepared for the facility prior to start-up. The plan will set out the response measures to be taken by the Dublin Waste to Energy facility personnel in the event of an emergency, such as a fire or an incident, which could result in a release of hazardous material to the environment. These measures will be designed to ensure the protection of the site employees, site visitors and the general public.

The emergency plan will be based on four essential components:

▪ **Mitigation**

Mitigation activities involve identifying potential hazards and then taking measures to remove the hazard or reduce its potential for adverse effects.

▪ **Preparedness**

Emergency planning, training programmes, emergency drills and exercise programmes will be elements of the preparedness programme.

▪ **Response**

Response activities address the immediate and short-term effects of an emergency. The site will be occupied on a continuous basis and the response will be available on a continuous basis.

▪ **Recovery**

Recovery activities and programmes involve restoring site services and systems to normal status.

Emergency contact numbers for staff with responsibility for the site will form part of the emergency response plan.

Emergency Response Teams

The facility will have its own fully trained emergency response teams. There will be sufficient trained staff to ensure that at least one full strength team will be available on call outside normal working hours.

Monitoring of the Facility During and Outside Normal Working Hours

During normal working hours, the operational personnel will be the first people who come across an incident and provide the initial response. They will sound the alarm and call in the emergency response team.

The waste to energy facility will be manned on a 24-hour/ 7 days basis. At night and in the weekends the waste to energy facility shift operators will be responsible for initiating the first response to an incident anywhere in the facility. Fire and smoke alarms will be monitored from the facility's control room. In the event of an alarm, the shift operators will contact the external emergency services immediately and then make contact with the emergency response team who will be on call.

Emergency Shutdown Procedure

The emergency shutdown will bring one or both WtE-lines to a safe status. In the event of a situation developing requiring an emergency shutdown of the waste to energy plant, the main objectives of the emergency shutdown procedure are as follows:

- to shut down the plant safely, avoiding injury to staff or damage to equipment
- to minimise emissions
- to prevent overpressure in the furnace
- to protect equipment from damage caused by excessive temperatures.

Final details of the emergency shutdown procedure will be decided during the detailed design phase of the project, which the Dublin Waste to Energy facility will submit to the Agency.

Fire Fighting

The plant will be designed and provided with adequate fire protection and detection systems, which will be consistent with the requirements of the Building Regulations and the Dublin Waste to Energy facility Insurer's requirements.

The following measures will be implemented to improve safety and minimise the risk of emergency situations:

- The plant design will be carried out in accordance with accepted international standards, design codes, regulations, good practice and experience by skilled people.
- The design will be reviewed to check for safety hazards in steady and non-steady state conditions and for operability issues.
- The plant will be designed to reduce to a minimum the number and extent of areas to be classified as explosive risk or high fire risk.
- Escape routes, alternative escape routes and emergency lighting will be provided in compliance with the requirements of the Building Regulations.
- The facility will comply with the requirements of the Irish Building Regulations Technical Guidance Documents on Fire Safety. A Fire Safety Certificate for the Facility will be obtained in due course.

Installations

Backup systems will be provided for critical situations for key equipment such as pumps, computers, power supply, instrumentation, etc.

Fire detection, alarm and fire fighting systems will be installed. All signals from fire detection and fire fighting equipment will be centralised on a synoptic panel in the control room.

Sirens will be provided as necessary for an audible, although not irritating, alarm throughout the plant. In rooms where ear protection is required due to high noise levels the audible alarm will be supported by a red flashing light.

Electrical cables and instrument cables will be strictly separated on pipe racks. Cable racks through dusty areas will be avoided.

The installations will be commissioned according to a schedule that will provide for the testing of safety systems. The installations will be well maintained and tested at regular intervals.

The system for fire fighting and control of the spread of a fire shall be as follows:

- fire wall compartmentation
- fixed foam suppression (in the bunker)
- fixed sprinkler systems (where necessary)
- fire detection and alarm systems
- smoke ventilation
- hydrants and hose reels
- dry/wet rising mains
- portable fire extinguishers
- fire water supply pumps

Storage And Transport Of Materials On Site

The storage and handling of materials on site are described in section H, where the function of each material in the process is described. The particular provisions in place to prevent spills, leaks or emissions are described in this section.

Incoming Solid Waste

Incoming solid waste will be unloaded in the enclosed reception hall. The solid waste bunker will be of reinforced concrete.

Outgoing Residues

Special safety instruction for filling FGT residues (a fine dry powder collected in a bag filter) into tanks, will be made.

Diesel

Diesel for trucks, auxiliary burners and the emergency generators will be stored in a bunded tank.

Utility Materials

All chemicals or other potentially polluting substances used during the operation of the facility will be stored in silos, tanks or bags as appropriate, at dedicated locations within the building and will be handled in a manner to eliminate the risk of any spillages contaminating surface water. Any leaked or spilled materials will be collected separately and will not be emitted to the atmosphere. All water collected from floor drains will be collected separately and will be recycled to the system.

Potential Points Of Contamination/Areas Most At Risk, Spill Containment Measures

General

The provisions, which will be in place, to prevent spills and contain emergencies will comprise the following components:

- physical containment to prevent or contain spills
- standard operating procedures which will be followed to prevent and contain spills
- emergency response procedures to mitigate spills, which occur.

The physical infrastructure in place to contain spills is described in this section. The emergency response provision is described in the section above.

Potential Points of Contamination

The potential points of contamination and areas most at risk from a spillage will be:

- areas where liquids will be stored
- areas where powder materials, such as lime or activated carbon, will be loaded or unloaded
- areas where powder material will be stored.

Areas where liquids will be loaded or unloaded

Ammonia will be stored in a bunded tank, located in the waste to energy process building. The tank for NaOH will also be bunded. The other utility liquids will be stored in bunded tanks.

Sumps and bunds

The waste bunker and collection sumps will be tested for water-tightness.

Transport of solids

Solid waste will be unloaded in the enclosed reception hall, where any litter will be contained. Powder materials will be transported in enclosed conveyors. Depending on the nature of the powder, dust filters will be used to contain any emission.

Solids handling will take place inside the reception hall in the waste to energy building. The building envelope will contain all operations. The building will be under negative pressure, as air from the reception hall will be drawn into the furnaces.

Bunded Areas Drainage

Contaminated run-off water will be sent to the furnaces for disposal, or sent offsite for treatment or disposal.

Please see drawing UZT/ BE 006 Site drainage Layout.

Firewater Retention

The risk of a fire occurring in the waste bunker and another area simultaneously is not likely. In the event of a fire alarm in the facility, the surface water discharge to the public sewer will automatically be shut off. All firewater will be retained in the facility, until the incident has passed and the contents of the technical water tank have been tested and passed as being within the limits set by the operating licence. If contaminated, the firewater will be sent for disposal to the furnace or to an off-site licensed disposal facility.

Flooding

The risk of flooding is negligible, please see Chapter 12 of the EIS where the risk of flooding is described in detail.

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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.

Please refer to [Attachment K Remediation, Decommissioning, Restoration and Aftercare](#).

Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
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Attachment K

Remediation, Decommissioning, Restoration and Aftercare

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ATTACHMENT K - REMEDIATION, DECOMMISSIONING, RESTORATION AND AFTERCARE

The provisions, which will be put in place, to minimise the impact on the environment following the cessation of the activity and any post closure care are described in this attachment.

Decommissioning

The Dublin Waste to Energy facility has a projected life span of at least 30 years, though this may be extended through maintenance or renewal of equipment and systems. Should circumstances arise whereby it becomes necessary to shut down the facility, the applicant will implement a decommissioning programme to ensure that any negative environmental impact is minimised.

This programme will include:

- Removal of any chemicals or wastes stored on site. Any oils, lubricants or fuels that are on site at the time of closure will be recycled/disposed of through appropriate registered contractors.
- Equipment and machinery will be emptied on ceasing operations, dismantled and stored under suitable conditions until sold, or if a suitable buyer cannot be located, recycled/disposed of through appropriate licensed waste disposal contractors.
- The site and buildings will be left in a secure manner and appropriate security maintained on site in the event of the site potentially being vacant for an extended period of time.
- If the buildings cannot be reused, the structures will be demolished and disposed of or recycled through appropriate licensed waste disposal contractors. The site will be returned to its present state.
- There will be no asbestos used in the construction of the facility so its removal during decommissioning will not arise.

Impacts And Mitigation Measures From The Decommissioning Phase

The main impact from the decommissioning phase will be the generation of waste. Relatively small quantities of waste will arise from the site and equipment cleaning phase of the decommissioning plan. If a reuse option cannot be found for the plant and buildings their constituent materials will also be waste. The materials arising in this situation will be recycled if feasible.

Post Closure Care

When the facility is decommissioned all materials will be removed from the facility. There will be no emissions from the facility after cessation of the activity. No post closure care management plan will be required.

SECTION L STATUTORY REQUIREMENTS

L. 1 Section 40(4) WMA

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

How the requirements of Section 40(4) (a) to (i) of the Waste Management Acts 1996 to 2003 will be met are addressed in the following sections:

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.

[Appendix 5.1 of the EIS describes how the proposed facility will comply with the requirements of BAT.](#)

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

Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
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[Please refer to Attachment L.1 for further information regarding Section 40\(4\) WMA.](#)

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Attachment L

Section 40(4) WMA

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Attachment L. 1 Section 40(4) WMA

In accordance with the requirements of Section 40(4)(a) to 40(4)(i) of the Waste Management Acts 1996 to 2003 the EPA cannot grant a waste licence unless it is satisfied that the requirements of this Section will be met by the activity.

Section 40(4)(a) of the Waste Management Acts 1996 to 2003 require that emissions from the activity will not contravene any relevant standards.

Atmospheric Emissions: The combustion of waste produces a number of emissions, the discharges of which are regulated by the EU Directive on Waste Incineration (2000/76/EC). The emissions to atmosphere which have been regulated are:

- Nitrogen Oxides (NO_x)
- Sulphur Dioxide (SO₂)
- Total Dust
- Carbon Monoxide (CO)
- Total Organic Carbon (TOC)
- Hydrogen Fluoride (HF) and Hydrogen Chloride (HCl)
- Dioxins/Furans (PCDD/PCDFs)
- Cadmium (Cd) & Thallium (Tl)
- Mercury (Hg)
- and the sum of Antimony (Sb), Arsenic (As), Lead (Pb), Chromium (Cr), Cobalt (Co), Copper (Cu), Manganese (Mn), Nickel (Ni) and Vanadium (V).

The Facility will be operated in accordance with BAT and air monitoring will be compared against the Waste Incineration Directive.

It is anticipated that a 30 day average total dust deposition rate of 350 mg/m²/day (as recommended in TA Luft) at the boundary of the site will be included in the Waste Licence. Results from regular dust monitoring will be compared against these standards.

Liquid Emissions: With respect to emissions to groundwater the appropriate standard is the EU Groundwater Directive (80/68/EEC), as implemented through Irish legislation. The Directive requires that the direct discharge of List I substances to groundwater be prevented, and that the discharge of List II substances should be minimised. The site will be developed on a containment basis and subsequently there will be no discharge to ground or groundwater.

The only emissions to surface water from the proposed Facility will be of cooling water to Dublin harbour. The cooling water will contain traces of biocides and elevated temperatures, which will be continually monitored to ensure the discharge, will be in compliance with licensed limits.

All the surface water run-off from the roofs of the buildings and from the roads, parking areas and capped landscape areas will be collected and stored in the rainwater storage tank in order to enable use of the collected rainwater in the facility process. The rainwater storage tank will be provided with an overflow connection to the main combined sewer pipeline.

Sanitary effluent from the facility will be generated from the sanitary installations in the kitchens, toilets, floor drains and showers in the administration area and will be discharged to the existing main storm water and foul sewer in pigeon house road

There will be no discharge of process wastewater from the facility. All process wastewaters from the WtE Facility will be collected for use in the process. Wash water will be discharged to the floor drains in the boiler house, etc. will also be collected and used in the process water system.

Noise: The standards applicable to noise emissions at the site are as follows: BS5228 (1984 and 1987) 'Noise Control on Construction and Open Sites' Part 1.

A noise standard of 55 dB(A) LAeq, (daytime) and 45 dB(A) LAeq, (night time) at the nearest noise sensitive locations will be used. Monitoring results will be compared against these standards.

Section 40(4)(b) of the Waste Management Acts 1996 to 2003 requires that the activity when carried out in accordance with waste licence conditions will not cause environmental pollution, which is defined as:

"The holding, transport, recovery and disposal of waste in the manner which would to a significant extent endanger human health or harm the environment, and in particular:

- a) Create a risk to waters, the atmosphere, land, soil, plants or animals
- b) Create a nuisance through noise, odours or litter
- c) Adverse/y affect the Countryside or places of special interest".

Monitoring of air emissions, surface water and noise, in addition to groundwater, ecological, archaeological and human receptor surveys have been considered within the scope of this application. No significant environmental impacts were identified, therefore the requirements of Section 40(4)(b) of the Waste Management Act 1996 are deemed to be satisfied.

Section 40(4)(c) of the Waste Management Acts 1996 to 2003 requires that BAT (Best Available Techniques) principles are implemented to minimise as far as practicable potential emissions from the site.

The Facility will be designed and operated in accordance with BAT to reduce emissions from the Facility as far as is practicable which will include operation in accordance with the Waste Licence conditions and the Waste Incineration Directive.

Section 40(4)(cc) of the Waste Management Acts 1996 to 2003 requires the activity to be consistent with the objectives of the relevant waste management plan, and that it will not prejudice measures taken or be taken by the relevant local authority or authorities for the purpose of the implementation of any such plan.

The need for the development of Waste to Energy capacity to serve the waste management needs of the Dublin Region was identified as far back as 1997 in the Dublin Waste Management Strategy. This document highlighted the need for the Region to develop integrated waste infrastructure to improve recycling rates and residual waste management. The adoption of the Dublin Waste Management Plan in 1998 formalised the region's policy direction and set out an objective to develop thermal capacity for municipal waste.

The need for the development of thermal treatment capacity in the Region was confirmed in the policy of the replacement Waste Management Plan for the Dublin Region published in November 2005. The activity will not prejudice measures taken or to be taken by the local authorities for the implementation of the Regional Waste Management Plan.

Section 40(4)(d) is not applicable.

Section 40(4)(e) of the Waste Management Acts 1996 to 2003 requires compliance with any financial provision required by the EPA.

Section 40(4)(f) of the Waste Management Acts 1996 to 2003 requires that energy will be used efficiently in the carrying on of the activity concerned.

The facility will generate approximately 60MW of electricity for export to the national grid. This is enough electricity to power approximately 50,000 homes annually.

WASTE Application Form - Dublin Waste to Energy

In accordance with the Best Available Techniques Reference Document (BREF) on Waste Incineration, the Dublin Waste to Energy Facility has been designed and optimised to achieve a very high overall energy efficiency and energy recovery, taking into account the techno-economic feasibility of the facility and the availability of users for the energy that is recovered.

Section 40(4)(g) of the Waste Management Acts 1996 to 2003 requires that any noise from the activity will comply with, or will not result in the contravention of any regulation under section 106 of the Environmental Protection Agency Act 1992.

The standards applicable to noise emissions at the site are as follows: BS5228 (1984 and 1987) 'Noise Control on Construction and Open Sites' Part 1.

A noise standard of 55 dB(A) LAeq, (daytime) and 45 dB(A) LAeq, (night time) at the nearest noise sensitive locations will be used. Monitoring results will be compared against these standards.

Section 40(4)(h) of the Waste Management Acts 1996 to 2003 requires that necessary measures will be taken to prevent accidents in the carrying out the activity concerned and, where an accident occurs, to limit its consequences for the environment.

An Environmental Management System will be set up at the facility to include environmental management and operational procedures and emergency response procedures. The local fire authority will be consulted with regards to fire fighting procedures for the facility and onsite equipment required. Fire drills will be undertaken. Site personnel will be trained in first aid and appropriate equipment provided on site. Spill kits will be provided on site. Emergency response procedure will include a management structure for the dealing with all emergencies on site.

Section 40(4)(i) of the Waste Management Acts 1996 to 2003 requires that necessary measures will be taken upon the permanent cessation of the activity concerned (including such a cessation resulting from the abandonment of the activity) to avoid any risk of the environmental pollution and return the site of the activity to a satisfactory state.

The Dublin Waste to Energy facility has a projected life span of at least 30 years, though this may be extended through maintenance or renewal of equipment and systems. Should circumstances arise whereby it becomes necessary to shut down the facility, the applicant will implement a decommissioning programme to ensure that any negative environmental impact is minimised.

When the facility is decommissioned all materials will be removed from the facility. There will be no emissions from the facility after decommissioning of the activity. No post closure care management plan will be required.

L.2 Fit and Proper Person

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

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

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

Attachment included	yes <input type="checkbox"/>	no <input type="checkbox"/>	not applicable <input checked="" type="checkbox"/>
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Not applicable as the applicant is a local authority

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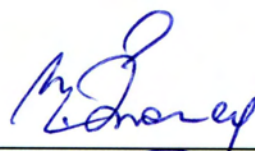
SECTION M DECLARATION

Declaration

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

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

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

Signed by : 
(on behalf of the organisation) Date : 7th July 2006

Print signature name: M. TWOMEY

Position in organisation : ASSISTANT CITY MANAGER

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