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Ireland

**WASTE LICENCE  
LANDFILL FOR NON-HAZARDOUS WASTE**

**PROPOSED DECISION**

<b>Waste Licence Application Register Number:</b>	16-2
<b>Applicant:</b>	Wexford County Council
<b>Location of Facility:</b>	Killurin Landfill, Newtown Lower, Killurin, County Wexford.

# INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

This Proposed Decision relates to an existing Wexford County Council landfill and Civic Waste Facility accepting municipal, commercial and non-hazardous industrial waste at Newtown Lower, Killurin, County Wexford. The Proposed Decision for a review of the existing Waste Licence provides for a vertical extension of part of the landfill and the continued operation of the Civic Waste Facility for the recovery and disposal of waste. The maximum final height of the completed capped landfill will be approximately 6 meters above the final contour agreed under the existing Waste Licence. The Proposed Decision also provides for the capping of the side slopes of the existing landfill, expansion of the landfill gas collection infrastructure and additional measures for the management and control of leachate and surface water. Landfill gas is currently collected and flared at the facility and it is planned to install utilisation plant for the production of electricity for the National Grid and this is provided for within the Proposed Decision.

This Proposed Decision will provide for the acceptance of 70,000 tonnes of waste per annum at the facility and also provides for an increase of the waste acceptance hours at the facility. The Proposed Decision also provides for the continued operation of the Civic Waste Facility and the acceptance for recycling/recovery of up to 2,500 tonnes of waste per annum at the Civic Waste Facility.

The licensee must manage and operate the facility to ensure that the activities do not cause environmental pollution. The licensee has to carry out regular environmental monitoring and submit all monitoring results and reports on the development, management and operation of the facility to the Agency.

The licence sets out in detail the conditions under which Wexford County Council will operate and manage this facility.

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# DECISION & REASONS FOR THE DECISION

## *Reasons for the Decision*

The Environmental Protection Agency (the Agency) is satisfied, on the basis of the information available, that the requirements of Section 40(4) of the Waste Management Act, 1996 have been complied with in respect of the application for a waste licence for the activities listed hereunder in Part I.

In reaching this decision the Agency has considered the application and supporting documentation received from the applicant, all submissions received from other parties and the report of its inspector.

## *Part I Activities Licensed*

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Agency proposes, under Section 46(2) of the said Act to grant this Waste Licence to Wexford County Council to carry on the waste activities listed below at Killurin Landfill Site, Newtown Lower, Killurin, County Wexford subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

### *Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Act 1996*

<b>Class 1</b>	<b>Deposit on, in or under land (including landfill):</b>  This activity is limited to the disposal of the waste types specified in Schedule A: Waste Acceptance, of this licence.
<b>Class 4</b>	<b>Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons:</b>  This activity is limited to the storage of leachate in the leachate storage tanks.
<b>Class 12</b>	<b>Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule:</b>  This activity is limited to repackaging of waste deposited at the Civic Waste Facility prior to disposal at the landfill or off-site at an appropriate facility.
<b>Class 13</b>	<b>Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced:</b>  This activity is limited to storage and of waste deposited in the civic waste facility prior to removal to the landfill or off-site to an appropriate facility for disposal.

### *Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act 1996*

<b>Class 2</b>	<b>Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes):</b>  This activity is limited to the storage of paper, cardboard, wood, Christmas trees and waste oils at the civic waste facility prior to recycling.
<b>Class 3</b>	<b>Recycling or reclamation of metals and metal compounds:</b>  This activity is limited to the acceptance and storage prior to collection of scrap metals, white goods and cans.
<b>Class 4</b>	<b>Recycling or reclamation of other inorganic materials:</b>  This activity is limited to the acceptance and storage prior to collection of bottle glass,

	clothing, batteries and fluorescent tubes.
<b>Class 9</b>	<b>Use of any waste principally as a fuel or other means to generate energy:</b> This activity is limited to the future of landfill gas for the generation of electricity.
<b>Class 10</b>	<b>The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system:</b> This activity is limited to the spreading of composts, treated sludges or other wastes on the landfill as part of the restoration of the facility.
<b>Class 11</b>	<b>Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule:</b> This activity is limited to activities in the civic waste facility.
<b>Class 12</b>	<b>Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule:</b> This activity is limited to the exchange of waste at the civic waste facility.
<b>Class 13</b>	<b>Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced:</b> This activity is limited to activities in the civic waste facility and the temporary storage of waste prior to removal off-site for reuse, recovery or recycling.

## *Part II: Activities Refused*

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Environmental Protection Agency (the Agency) proposes, under Section 46(2) of the said Act to refuse the following classes of activity.

*Refused waste disposal activities, in accordance with the  
Third Schedule of the Waste Management Act, 1996*

<b>Class 2</b>	<b>Land treatment, including biodegradation of liquid or sludge discards in soils:</b> Reason: The use of lime treated sewage sludge as cover at the facility is not acceptable due to the likelihood of contributing significantly to leachate generation.
<b>Class 7</b>	<b>Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 10 of this Schedule:</b> Reason: The drying of lime-treated sewage sludge on the surface of the landfill where it has been deposited as cover is not considered an appropriate method for the disposal/recovery of this type of waste and is not acceptable.
<b>Class 10</b>	<b>Release of waste into a water body (including a seabed insertion):</b> Reason: Inadequate information was provided on the discharge of untreated/partially treated leachate. Granting this activity without sufficient information would not be consistent with compliance with Section 40(4) of the Act.

# INTERPRETATION

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Act, (the Act), unless otherwise defined in this section.

<b>Adequate lighting</b>	20 lux measured at ground level.
<b>Agreement</b>	Agreement in writing.
<b>Annually</b>	At approximately twelve monthly intervals.
<b>Attachment</b>	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
<b>Application</b>	The application by the licensee for this waste licence.
<b>Appropriate facility</b>	A waste management facility, duly authorised under relevant law and technically suitable.
<b>BAT</b>	Best Available Techniques as defined in Article 2(11) of Council Directive 96/61/EC concerning integrated pollution prevention and control.
<b>Biodegradable waste</b>	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
<b>Construction and Demolition Waste</b>	All wastes which arise from construction, renovation and demolition activities.
<b>Cover material</b>	Bricks, crushed concrete, tarmac, earth, soil, sub-soil, stone, rock or other materials; the use of which has been agreed with the Agency.
<b>Daily Cover</b>	Is the term used to describe material spread (about 150mm if soil cover is used) over deposited waste at the end of each day.
<b>Daytime</b>	0800 hrs to 2200 hrs.
<b>Documentation</b>	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
<b>Drawing</b>	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
<b>Emergency</b>	Those occurrences defined in Condition 9.4.
<b>Emission Limits</b>	Those limits, including concentration limits and deposition levels established in <i>Schedule C: Emission Limits</i> , of this licence.
<b>European Waste Catalogue (EWC)</b>	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 94/3/EC and any subsequent amendment published in the Official Journal of the European Community.
<b>Green waste</b>	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
<b>Hours of Operation</b>	The hours during which the facility is authorised to be operational.

<b>Hours of Waste Acceptance</b>	The hours during which the facility is authorised to accept waste. Different activities within the facility, such as the landfill and the civic waste facility, may have different hours of waste acceptance.
<b>Incident</b>	An incident for the purposes of this licence is defined as <ul style="list-style-type: none"> <li>• An emergency;</li> <li>• Any emission which does not comply with the requirements of this licence;</li> <li>• Any trigger level specified in this licence which is attained or exceeded; and</li> </ul> Any indication that environmental pollution has, or may have, taken place.
<b>Inert waste</b>	Waste as defined in S.I. 336 of 2002, Waste Management (Licensing) (Amendment) Regulations, 2002.
<b>Intermediate Cover</b>	Term used to describe material (minimum 300mm if soil is used) spread over deposited waste for a period of time prior to restoration or prior to further disposal of waste.
<b>Landfill footprint</b>	Refers to the area of the facility where the waste is disposed of by placement on the ground or on other waste (or deposited in lined cells where applicable).
<b>Landfill Gas</b>	Gases generated from the landfilled waste.
<b>LEL (Lower Explosive Limit)</b>	The lowest percentage concentration by volume of a mixture of flammable gas with air that will propagate a flame at 25°C and atmospheric pressure.
<b>Licence</b>	A waste licence issued in accordance with the Act.
<b>Licensee</b>	Wexford County Council.
<b>List I/II Organics</b>	Substances classified pursuant to EC Directives 76/464/EEC and 80/68/EEC.
<b>Liquid Waste</b>	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
<b>Maintain</b>	Keep in a fit state, including such regular inspection, servicing and repair as may be necessary to adequately perform its function.
<b>Mobile Plant</b>	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.
<b>Monthly</b>	A minimum of 12 times per year, at approximately monthly intervals.
<b>Night-time</b>	2200 hrs to 0800 hrs.
<b>Quarterly</b>	At approximately three monthly intervals.
<b>Sample(s)</b>	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
<b>Sludge</b>	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment with greater than 2% dry matter.
<b>Specified Emissions</b>	Those emissions listed in <i>Schedule C: Emission Limits</i> , of this licence.

<b>Specified Engineering Works</b>	Those engineering works listed in <i>Schedule B: Specified Engineering Works</i> , of this licence.
<b>Treated Sludge</b>	Sludge which has undergone biological, chemical or heat treatment, long-term storage or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use.
<b>Treatment</b>	Treatment means the physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.
<b>Trigger Level</b>	A parameter value specified in the licence, the achievement or exceedance of which requires certain actions to be taken by the licensee.
<b>Wastewater</b>	Contaminated water including water that has been used for washing, an/or flushing (including foul water).
<b>White Goods</b>	Refrigerators, cookers, ovens and other similar appliances.
<b>EPA Working Day</b>	Refers to the following hours: 0900 hrs to 1730 hrs Monday to Friday inclusive.
<b>Working Face</b>	The area of the site in which waste other than cover material or material for the purposes of the construction of specified engineering works is being deposited.



## ***PART III CONDITIONS***

### **CONDITION 1 SCOPE OF THE LICENCE**

- 1.1. Waste activities at the facility shall be restricted to those listed and described in Part I: Activities Licensed and authorised by this licence.
- 1.2. For the purposes of this licence, the facility is the area of land outlined in red on Drawing No. 1610084 – *Waste Licence Application Boundary*, submitted to the Agency 31/05/03. Any reference in this licence to “facility” shall mean the area thus outlined in red.
- 1.3. This licence is for the purposes of waste licensing under the Waste Management Act, 1996 only and nothing in this licence shall be construed as negating the licensee’s statutory obligations or requirements under any other enactments or regulations.
- 1.4. Municipal Waste, Commercial Waste, Industrial Waste, Construction and Demolition Waste and Inert Waste may be recovered and disposed of at the facility subject to the maximum quantities and other constraints listed in *Schedule A: Waste Acceptance*, of this licence.
- 1.5. Waste Acceptance
  - 1.5.1. Waste shall only be accepted at the facility, from customers who are holders of a waste permit, unless exempted, under the Waste Management (Collection Permit) Regulations 2001 or from other licensed/permitted facilities.
  - 1.5.2. Whole used tyres (other than bicycle tyres and tyres with an outside diameter greater than 1400mm) shall not be disposed of at the facility from 16 July 2003. Shredded used tyres shall not be disposed of at the facility from 16 July 2006.
  - 1.5.3. No hazardous wastes or liquid wastes shall be disposed of at the facility.
  - 1.5.4. The licensee shall ensure that all waste accepted at the facility is subject to treatment by 16<sup>th</sup> July 2009 or earlier if otherwise instructed by the Agency. This provision may not apply to inert waste for which treatment is not technically feasible, nor to any other waste for which such treatment does not contribute to the objectives of the Landfill Directive (1999/31/EC), as set out in Article 1 of the Directive.
- 1.6. Waste Acceptance Hours and Hours of Operation
  - 1.6.1. Landfill
    - 1.6.1.1. Waste may be accepted at the facility for disposal at the landfill only between the hours of 08:30 hrs and 17:45 hrs Monday to Friday inclusive and 09:00 to 13:00 on Saturdays.
    - 1.6.1.2. The landfill at the facility may be operated only during the hours of 08:00 hrs to 18:30 hrs Monday to Friday inclusive and 08:30 hrs to 14:00 hrs on Saturdays.
    - 1.6.1.3. Waste shall not be accepted at the landfill on Bank Holidays.
  - 1.6.2. Civic Waste Facility
    - 1.6.2.1. Waste shall be accepted at the Civic Waste Facility only between the hours of 08:30 hrs to 16:30 hrs Monday to Friday inclusive and 08:30 hrs and 12:00 hrs on Saturdays.

- 1.7. Where the Agency considers that a non-compliance with any condition of this licence has occurred, it may serve a notice on the licensee specifying.
- 1.7.1. That only those wastes as specified, if any, in the notice are to be accepted at the facility after the date set down in the notice.
- 1.7.2. That the licensee shall undertake the works stipulated in the notice, and/or otherwise comply with the requirements of the notice as set down therein, within the time-scale contained in the notice.
- 1.7.3 That the licensee shall carry out any other requirement specified in the notice.
- When the notice has been complied with, the licensee shall provide written confirmation that the requirements of the notice have been carried out. No waste, other than that which is stipulated in the notice, shall be accepted at the facility until written permission is received from the Agency.
- 1.8 Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary and shall notify the licensee in writing of any such modification or alteration. Every such plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency. Every such plan, programme or proposal agreed by the Agency shall be covered by the conditions of this licence.
- 1.9 This licence is being granted in substitution for the waste licence granted to the licensee on 19<sup>th</sup> November 1999 and bearing Waste Licence Register No. 16-1. The previous Waste Licence (Register No: 16-1) is superseded by this licence.

*REASON: To clarify the scope of this licence.*

## **CONDITION 2 MANAGEMENT OF THE FACILITY**

### **2.1 Facility Management**

- 2.1.1 The licensee shall employ a suitably qualified facility manager with experience commensurate with the level of expertise required, who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation.
- 2.1.2 The Civic Waste Facility shall be supervised by an appropriately qualified and competent person at all times while waste may be accepted.
- 2.1.3 Both the facility manager and deputy, and any replacement manager or deputy, shall successfully complete both the FAS Waste Management Training Programme (or equivalent agreed with the Agency) and associated on site assessment appraisal within twelve months of appointment.
- 2.1.4 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience, as required and shall be aware of the requirements of this licence.

### **2.2 Management Structure**

- 2.2.1 Within six months from the date of grant of this licence, the licensee shall submit written details of the management structure of the facility to the Agency. Any proposed replacement in the management structure shall be notified in advance in writing to the

Agency. Written details of the management structure shall include the following information:-

- a) The names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;
- b) Details of the responsibilities for each individual named under a) above; and
- c) Details of the relevant education, training and experience held by each of the persons nominated under a) above.

### 2.3 Environmental Management System (EMS)

2.3.1 The licensee shall maintain an EMS. Within six months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement a proposal for the updating (where appropriate) of the documented Environmental Management System (EMS) for the facility. Following the agreement of the Agency, the licensee shall establish and maintain such a system. The EMS shall be updated on an annual basis with amendments being submitted to the Agency for its agreement.

2.3.2 The EMS shall include as a minimum the following elements.

#### 2.3.2.1 Schedule of Environmental Objectives and Targets

The objectives should be specific and the targets measurable. The schedule shall address a five-year period as a minimum. The schedule shall include a time-scale for achieving the objectives and targets and shall comply with any other written guidance issued by the Agency.

#### 2.3.2.2 Environmental Management Plan (EMP)

The EMP shall include, as a minimum, the following: -

- a) Methods by which the objectives and targets will be achieved and the identification of those responsible for achieving those objectives and targets; and
- b) Any other items required by written guidance issued by the Agency.

#### 2.3.2.3 Corrective Action Procedures

The Corrective Action Procedures shall detail the corrective actions to be taken should any of the procedures detailed in the EMS not be followed.

#### 2.3.2.4 Awareness and Training Programme

The Awareness and Training Programme shall identify training needs, for personnel who work in or have responsibility for the licensed facility.

### 2.4 Communications Programme

2.4.1 The licensee shall establish and maintain a Communications Programme to inform the local community and to ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility.

*REASON: To make provision for the proper management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.*

## CONDITION 3 FACILITY INFRASTRUCTURE

3.1 The licensee shall establish all infrastructure referred to in this licence as required by the conditions of this licence. Infrastructural works related to the facility but carried out outside the facility boundary shall only be carried out with the prior consent of the relevant landowners.

### 3.2 Specified Engineering Works

3.2.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule B: Specified Engineering Works*, of this licence, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.

3.2.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.

3.2.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall include the following information:-

- a) A description of the works;
- b) As-built drawings of the works;
- c) Records and results of all tests carried out (including failures);
- d) Drawings and sections showing the location of all samples and tests carried out;
- e) Daily record sheets/diary;
- f) Name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;
- g) Name(s) of individual(s) responsible for supervision of works and for quality assurance validation of works;
- h) Records of any problems and the remedial works carried out to resolve those problems; and
- i) Any other information requested in writing by the Agency.

### 3.3 Facility Notice Board

3.3.1 The licensee shall provide and maintain a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.

3.3.2 The board shall clearly show:-

- a) The name and telephone number of the facility;
- b) The normal hours of opening;
- c) The name of the licence holder;
- d) An emergency out of hours contact telephone number;
- e) The licence reference number; and
- f) Where environmental information relating to the facility can be obtained.

### 3.4 Facility Security

3.4.1 Security and stockproof fencing and gates shall be maintained as described in Section D.1(a) of the Waste Licence Application. The base of the fencing shall be set in the ground. Subject to the implementation of the restoration and aftercare plan and to the agreement of the Agency, the requirement for such site security may be removed.

3.4.2 The licensee shall remedy any defect in the gates and/or fencing as follows:-

- a) A temporary repair shall be made by the end of the working day; and
- b) A repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

### 3.5 Facility Roads and Site Surfaces

3.5.1 Site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.

3.5.2 Traffic awaiting entry to the facility shall not queue along the public road.

3.5.3 The facility entrance, the Civic Waste Facility, the bulk storage area for recyclables, the scrap metal area, the wheelwash and truckwash and the mobile plant washing area shall be paved and maintained in accordance with Section D.1.(c.) of the Waste Licence application.

### 3.6 Facility Office

3.6.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.

3.6.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.

### 3.7 Waste Inspection and Quarantine Areas

3.7.1 A Waste Inspection Facility and a Waste Quarantine Area shall be provided and maintained at the facility.

3.7.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other.

### 3.8 Weighbridge

3.8.1 The licensee shall provide and maintain a weighbridge at the facility.

### 3.9 Wheel Cleaning

3.9.1 The licensee shall establish and maintain a wheelwash/dry wheel shake at the facility.

### 3.10 Waste Water Treatment Plant

3.10.1 The licensee shall provide and maintain a Wastewater Treatment plant at the facility for the treatment of wastewater arising on-site. Any percolation area shall satisfy the criteria set out in the *Wastewater Treatment Manual, Treatment Systems for Single Houses*, published by the Environmental Protection Agency.

### 3.11 Tank and Drum Storage Areas

- 3.11.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.
- 3.11.2 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:-
- (a) 110% of the capacity of the largest tank or drum within the bunded area; or
  - (b) 25% of the total volume of substance which could be stored within the bunded area.
- 3.11.3 All drainage from bunded areas shall be diverted for collection and safe disposal.
- 3.11.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

The integrity and water tightness of all the bunds and their resistance to penetration by water or other materials stored therein shall be confirmed by the licensee and shall be reported to the Agency within six months of the date of grant of this licence.

This confirmation shall be repeated at least once every three years thereafter and reported to the Agency on each occasion.

### 3.12 Leachate Management Infrastructure

- 3.12.1 Leachate management infrastructure, other than the treatment and discharge infrastructure referred in "Phase 4", shall be provided and maintained at the facility as described in Attachment D.4 of the application and as specified in Drawing No. 313 – *Leachate Management* – Attachment D.4 of the Waste Licence Application.
- 3.12.2 The licensee shall provide and maintain leachate storage tanks at the facility to facilitate the storage of leachate abstracted/collected from the waste. All leachate storage structures on the facility shall be inspected and certified fit for purpose every three years by an independent and appropriately qualified chartered engineer.
- 3.12.3 All structures for the storage and/or treatment of leachate shall be fully enclosed except for inlet and outlet piping.
- 3.12.4 Within six months of the date of grant of this licence, the licensee shall carry out the leachate interception works referred to as "Phase 5" in Section D.4(a) Leachate Management Plan of the Waste Licence application. The licensee shall also assess options for further optimisation of leachate interception and collection at the facility and shall submit a proposal to the Agency for agreement within three months of the date of grant of this licence.

### 3.13 Landfill Gas Management

- 3.13.1 Landfill gas management infrastructure shall be provided and maintained at the facility as described in Section D.5 – *Landfill Gas Management* and as specified in Drawing No. 314 – *Landfill Gas Management* - Attachment D.5 of the Waste Licence application. The flare shall be of an enclosed type design.
- Within three months of the date of grant of this licence, flare unit efficiency shall be tested and a report submitted to the Agency and this shall be repeated once every three years thereafter.
- 3.13.2 Within six months of the date of grant of this licence, the landfill gas collection system shall be extended to adequately collect landfill gas from the main waste body.

3.13.3 The combustion air supply to the enclosed gas flare shall be controlled so as to achieve a minimum temperature of 1,000°C and 0.3 seconds retention time at this temperature.

3.13.4 All buildings constructed on the facility shall have regard to the guidance given in the Department of Environment 1994 publication "Protection of New Buildings and Occupants from Landfill Gas" and any subsequent revisions.

3.13.5 Landfill Gas Combustion Plant

3.13.5.1 On installation of Landfill Gas Combustion Plant, the licensee shall install continuous carbon monoxide monitors on the outlets of the gas engine(s).

3.14 Surface Water Management

3.14.1 Effective surface water management infrastructure shall be provided and maintained at the facility during construction, operation, restoration and aftercare of the facility. As a minimum, the infrastructure shall be capable of the following:-

- a) The prevention of contaminated water and leachate discharges into surface water drains and courses; and
- b) The collection/diversion of run off arising from capped and restored areas in such a way that the erosion of channels into the capping of slopes is prevented.

3.14.2 Within three months of the date of grant of this licensee, the licensee shall submit a proposal for the agreement of the Agency for discharge points for discharging surface water collected at the facility. Each discharge point shall be assigned a unique reference number for monitoring purposes. The monitoring requirements set out in Schedule D.5.1 shall apply to these discharge points once agreed.

3.15 Civic Waste Facility

3.15.1 The license shall provide and maintain the Civic Waste Facility referred to in Section D.1(p) – *Civic Amenity Facilities* and as shown on Drawing No. 310, Attachment D.1 – *Site Infrastructure* of the Waste Licence application.

3.16 Monitoring Infrastructure

3.16.1 Replacement of Infrastructure

- a) Monitoring infrastructure which is damaged or proves to be unsuitable for its purpose shall be replaced within three months of it being damaged or recognised as being unsuitable.

*REASON: To provide appropriate infrastructure for the protection of the environment.*

## **CONDITION 4 RESTORATION AND AFTERCARE**

4.1. The licensee shall restore the facility on a phased basis. Within three months of the date of grant of this licence, the licensee shall submit updated Restoration and Aftercare Plans including a report on progress with the capping of the side slopes at the facility. The Restoration and Aftercare Plans for the facility shall include the plan submitted as part of Attachment G of the Waste Licence Application.

4.2. The final profile/height of the facility shall not exceed 31m OD Malin.

4.3. Final Capping

4.3.1. Unless otherwise agreed with the Agency, the final capping shall consist of the following:-

- a) Top soil (150 -300mm);
- b) Subsoils, such that total thickness of top soil and subsoils is at least 1m;
- c) Drainage layer of 0.5m thickness having a minimum hydraulic conductivity of  $1 \times 10^{-4}$  m/s;
- d) Compacted mineral layer of a minimum 0.6m thickness with a permeability of less than  $1 \times 10^{-9}$  m/s or a geosynthetic material (e.g. GCL) or similar that provides equivalent protection; and
- e) Gas collection layer of natural material (minimum 0.3m) or a geosynthetic layer.

4.3.2. All side slopes at the existing facility shall be finally capped within twelve months of the date of grant of this licence. Side slope capping shall be designed and installed such that erosion by surface water run-off is avoided.

4.4. No material or object that is incompatible with the proposed restoration of the facility shall be present within one metre of the final soil surface levels.

4.5. Where tree planting is to be carried out above waste-filled areas, a synthetic barrier shall be used to augment the clay cap. Combined topsoil and subsoil depths shall be a minimum of 1m.

4.6. The restoration of the landfill facility shall be completed within eighteen months of the date of achievement of the final waste profile at the facility.

4.7. Soil Storage

4.7.1. All soils shall be stored to preserve the soil structure for future use.

*REASON: To provide for the restoration of the facility.*

## **CONDITION 5 FACILITY OPERATION AND WASTE MANAGEMENT**

5.1 Wastes shall not be deposited in any cell or part of the landfill without the prior agreement of the Agency.

5.2 Wastes shall only be accepted at the facility from holders of waste collection permits issued under the Waste Management (Collection) Permit Regulations, 2001 and persons, partnerships, local authorities and bodies corporate who are not required to have obtained waste collection permits and from licensed/permitted facilities. Copies of the waste collection permits, waste licenses and waste permits must be maintained at the facility.

5.3 Waste Acceptance and Characterisation Procedures

5.3.1 Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, revised written procedures for the acceptance and handling of all wastes. These procedures shall include details of the pre-treatment of all waste to be carried out prior to acceptance at the facility and shall also include methods for the characterisation of waste in order to distinguish between inert, non-hazardous and hazardous wastes. The procedures shall have regard to the EU decision (2003/22/EC) on establishing the criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive (1999/31/EC) on the landfill of waste.

5.3.2 The acceptance of inert waste for recovery shall be as specified in *Schedule F: Acceptance of Inert Waste*, of this licence.



- 5.4 All wastes shall be checked at the working face. Any wastes not suitable for acceptance shall be removed for recovery or disposal at an appropriate alternative facility. Such waste shall be stored in the Waste Quarantine Area only. No waste shall be stored in the Waste Quarantine Area for more than three months.
- 5.5 Working Face
- 5.5.1 Unless the prior agreement of the Agency is given, the following shall apply at the landfill:-
- a) Only one working face shall exist at the landfill at any one time for the deposit of waste other than cover or restoration materials; and
  - b) The working face of the landfill shall be no more than 2.5 metres in height after compaction, no more than 25 metres wide and have a slope no greater than 1 in 3.
- 5.5.2 All waste deposited at the working face shall be compacted, using a steel wheeled compactor, and covered as soon as is practicable and at any rate prior to the end of the working day.
- 5.5.3 The working face, or faces, shall each day at the end of the day, be covered with suitable material.
- 5.6 Daily and Intermediate Cover
- 5.6.1 Any cover material at any location within the facility which is eroded, washed off or otherwise removed shall be replaced by the end of the working day.
- 5.6.2 Within three months of the date of grant of this licence, appropriate cover material shall be placed across the whole landfill so that no waste, other than the following is exposed:-
- a) Waste suitable for specified engineering works; and
  - b) Waste on the working face during the operational hours of the facility.
- 5.7 Landscaping
- 5.7.1 Landscaping of the facility as described in Attachment C.7 and Attachment G of the Waste Licence Application shall be carried out during the restoration of the facility.
- 5.7.2 The existing woodland and hedgerow networks which form parts of the boundary of the facility shall be retained by the licensee.
- 5.8 Operational Controls
- 5.8.1 The landfill shall be filled in accordance with the two phase sequence outlined in Drawing 311 – Attachment D.2 - *Preparatory Works* of the waste licence application.
- 5.8.2 All large hollow objects and other large articles deposited at the facility shall be crushed, broken up, flattened or otherwise treated.
- 5.8.3 Wastes once deposited and covered shall not be excavated, disturbed or otherwise picked over with the exception of works associated with the construction and installation of the leachate and landfill gas collection systems without the prior agreement from the Agency.

- 5.8.4 Completed areas of the landfill shall be profiled so that no depressions exist in which water may accumulate. Any depressions arising after profiling shall be rectified by the emplacement of suitable capping or restoration materials.
- 5.8.5 Scavenging shall not be permitted at the facility.
- 5.8.6 Gates shall be locked shut when the facility is unsupervised.
- 5.8.7 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 5.8.8 Fuels shall be stored only at appropriately banded locations on the facility.
- 5.8.9 All tanks and drums shall be labelled to clearly indicate their contents.
- 5.8.10 No smoking shall be allowed on the facility other than in the site offices.
- 5.9 Off-site Disposal and Recovery
- 5.9.1 Waste sent off-site for recovery or disposal shall be conveyed by a waste carrier agreed in advance by the Agency only. Any request for such agreement of a waste carrier shall include the following:
- i) Copies of the waste carrier's permit(s) under the Waste Management (Collection Permit) Regulations 2001; and
  - ii) Details of the waste types it is proposed the carrier will transfer from the facility.
- 5.9.2 All waste transferred from the facility shall be transferred to an appropriate facility agreed by the Agency only. Any request for agreement of such a facility shall be forwarded to the Agency at least one month in advance of its proposed use and shall include the following:
- i) A copy of the waste permit or waste licence where applicable;
  - ii) The proposed waste types and quantities; and
  - iii) Details of any limitations on waste types and quantities acceptable at the facility.
- 5.10 Civic Waste Facility
- 5.10.1 The Civic Waste Facility shall only be used by private vehicles. The facility shall not be used as a transfer station for disposal of waste by commercial waste disposal contractors or local authority waste collection vehicles.
- 5.10.2 All waste deposited in the Civic Waste Facility shall be either:-
- a) Into a skip;
  - b) Into the hopper of a compactor for disposal;
  - c) Into a receptacle for recovery; and
  - d) In the case where inspection is required, into a designated inspection area.
- 5.10.3 The licensee shall assign and clearly label each container at the Civic Waste Facility to indicate their contents.

5.10.4 Domestic Waste delivered to the civic waste facility shall be deposited at the working face prior to the end of the working day or removed off-site to an alternative facility agreed with the Agency.

5.10.5 At the end of the working day the floor of the Civic Waste Facility shall be cleared of waste.

#### 5.11 Leachate Management

5.11.1 Within three months of the date of grant of this licence, the licensee shall submit a revised proposal for the management of leachate levels within the facility to the Agency for its agreement.

5.11.2 The frequency of leachate removal/discharge from the leachate storage tanks shall be such that a minimum freeboard of 0.75m shall be maintained in the final storage tank at all times.

5.11.3 Leachate stored in the leachate storage tanks shall be disposed of by tankering off-site in fully enclosed road tankers.

5.11.4 Recirculation of leachate or other contaminated water shall not be undertaken without the prior agreement of the Agency.

#### 5.12 Maintenance

5.12.1 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.

5.12.2 The licensee shall maintain and clearly label and name all sampling and monitoring locations.

5.12.3 The wheel-wash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel-wash and disposed of at the working face or to a skip.

5.12.4 The licensee shall maintain all gas wells, pipework, valves, pumps, flares, engines and other infrastructure that form part of the landfill gas management system in a safe and fully operational manner.

*REASON: To provide for appropriate operation of the facility to ensure protection of the environment.*

## **CONDITION 6 EMISSIONS**

6.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule C: Emission Limits*, of this licence. There shall be no other emissions of environmental significance.

6.2. The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.

#### 6.3. Landfill Gas

6.3.1. The following are the trigger levels for landfill gas emissions from the facility measured in any service duct or manhole on, at or immediately adjacent to the facility and/or at any other point located outside the body of the waste:-

- a) Methane, greater than or equal to 1.0% v/v; or
- b) Carbon dioxide, greater than or equal to 1.5% v/v.

6.3.2. The concentration limits for emissions to atmosphere specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of :-

- a) In the case of landfill gas flare:  
Temperature 273 K, pressure 101.3 kPa, dry gas at 3% oxygen; and
- b) In the case of landfill gas combustion plant:  
Temperature 273 K, pressure 101.3 kPa, dry gas; 5% oxygen.

6.3.3. Emission limits for emissions from landfill gas flare/combustion plant to atmosphere in this licence shall be interpreted in the following way.

6.3.3.1. Continuous monitoring

- a) No 24 hour mean value shall exceed the emission limit value;
- b) 97% of all 30 minute mean values taken continuously over an annual period shall not exceed 1.2 times the emission limit value; and
- c) No 30 minute mean value shall exceed twice the emission limit value.

6.3.3.2. Non-Continuous Monitoring

- a) For any parameter where, due to sampling/analytical limitations, a 30 minute samples is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value;
- b) For all other parameters, no 30 minute mean value shall exceed the emission limit value; and
- c) For flow, no hourly or daily mean value shall exceed the emission limit value.

6.4. Groundwater

6.4.1 There shall be no direct emissions to groundwater.

6.4.2 Within three months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, groundwater monitoring trigger levels in accordance with the requirements of Directive 1999/31/EC.

6.5. Emissions to Surface Water

6.5.1. No raw leachate, treated leachate or contaminated surface water shall be discharged directly to the Slaney catchment.

6.5.2. No substance shall be discharged in a manner, or at a concentration that, following initial dilution causes tainting of fish or shellfish.

6.6. Disposal of Leachate

6.6.1. No leachate shall be discharged directly to any receiving surface water body.

6.6.2. Any leachate or other contaminated water removed from the facility shall be transported via tanker for disposal at Enniscorthy Wastewater Treatment Plant, unless otherwise agreed in advance with the Agency and the relevant Sanitary Authority. Permission for the disposal of leachate at the WWTP shall be obtained from the Sanitary Authority on an annual basis. Disposal procedures for the leachate shall be in accordance with any written requirements of the Sanitary Authority.

6.6.3. Copies of leachate monitoring results required by *Schedule D: Monitoring*, of this licence shall be submitted to the Sanitary Authority.

*REASON: To control emissions from the facility and provide for the protection of the environment.*

## **CONDITION 7 NUISANCE CONTROL**

- 7.1 The licensee shall ensure that vermin, birds, flies, mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.
- 7.2 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.
- 7.3 Litter Control
- 7.3.1 The measures and infrastructure as described in Section C.5(c) of the Waste Licence application shall be applied to control litter at the facility.
- 7.3.2 Notwithstanding Condition 7.3.1, litter fencing/netting shall be installed and maintained around the perimeter of the active tipping face and area to the specifications described in the Agency's Landfill Manual – Landfill Operational Practices prior to disposal of any waste in the new cells.
- 7.3.3 All litter control infrastructure shall be inspected on a daily basis. The licensee shall remedy any defect in the litter netting as follows:-
- a) A temporary repair shall be made by the end of the working day; and
  - b) A repair to the standard of the original netting shall be undertaken within three working days.
- 7.3.4 All loose litter or other waste, placed on or in the vicinity of the facility, other than in accordance with the requirements of this licence, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00am of the next working day after such waste is discovered.
- 7.3.5 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.
- 7.4 Dust Control
- 7.4.1 In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.
- 7.5 Prior to exiting the facility, all waste vehicles shall use the wheelwash.
- 7.6 Bird Control
- 7.6.1 Birds shall be prevented from gathering on and feeding at the facility by the use of birds of prey and/or other bird scaring techniques. The birds of prey and/or other techniques shall maintain their presence every day, from before dawn to after dark, until the waste activities cease and all the waste is capped to the written satisfaction of the Agency. The use of gas operated bird scaring devices is prohibited at the facility.

*REASON: To provide for the control of nuisances.*

## CONDITION 8 MONITORING

- 8.1 The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule D: Monitoring*, of this licence and as specified in this licence. Unless otherwise specified by this licence, all environmental monitoring shall commence no later than two months after the date of grant of this licence.
- 8.2 The licensee shall amend the frequency, locations, methods and scope of monitoring as required by this licence upon the written instruction of the Agency only and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.
- 8.3 Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturers' instructions (if any) so that all monitoring results accurately reflect any emission, discharge or environmental parameter.
- 8.4 The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.
- 8.5 The licensee shall maintain a permanent gas monitoring system in the site office and any other enclosed structures at the facility. All landfill gas monitoring equipment, other than permanent monitoring systems within buildings, shall be certified as being intrinsically safe.
- 8.6 Within four months of the date of grant of this licence, the following information shall be submitted to the Agency for its agreement: the names, qualifications and a summary of the relevant experience of all persons that will carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring. Any proposed changes to the above shall be submitted to the Agency for its agreement.
- 8.7 Within three months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement an updated appropriately scaled drawing showing all the monitoring locations that are stipulated in this licence. The drawing shall include the twelve figure National Grid Reference for the various monitoring points.
- 8.8 Groundwater Monitoring
- 8.8.1 Subject to the agreement of the well owners, all private wells within 250m of the facility shall be included in the monitoring programme set out in *Schedule D: Monitoring*, of this licence.
- 8.9 Topographical Survey
- 8.9.1 A topographical survey shall be carried out within six months of the date of grant of this licence. The survey shall include a measurement of the remaining available void space. It shall be repeated annually thereafter, unless otherwise agreed with the Agency. The survey shall be in accordance with any written instructions issued by the Agency
- 8.10 Stability Assessment
- 8.10.1 Within six months of the date of grant of this licence, and annually thereafter, the licensee shall carry out a stability assessment of the side slopes of the facility.
- 8.11 Nuisance Monitoring
- 8.11.1 The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, mud, dust and odours.
- 8.12 Ecological Monitoring

8.12.1 The licensee shall carry out an annual ecological survey in the part of the Natural Heritage Area which borders the facility which shall be reported as part of the AER.

*REASON: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

## **CONDITION 9    CONTINGENCY ARRANGEMENTS**

9.1. In the event of an incident the licensee shall immediately:-

- a) Identify the date, time and place of the incident;
- b) Carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
- c) Isolate the source of any such emission;
- d) Evaluate the environmental pollution, if any, caused by the incident;
- e) Identify and execute measures to minimise the emissions/malfunction and the effects thereof; and
- f) Provide a proposal to the Agency for its agreement within one month of the incident occurring to:-
  - a) Identify and put in place measures to avoid reoccurrence of the incident;
  - b) Identify and put in place any other appropriate remedial action.

9.2. The licensee shall, within six months of the date of grant of this licence, review Emergency Response Procedures (ERP's) at the facility and submit an appropriately revised written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment. This shall include a risk assessment to determine the requirements at the facility for fire fighting and fire water retention facilities. The Fire Authority shall be consulted by the licensee during this assessment.

9.3. The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.

9.4. Emergencies

9.4.1. All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.

9.4.2. No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

9.4.3. In the event that monitoring of local wells indicates that the facility is having a significant adverse effect on the quantity and/or quality of the water supply this shall be treated as an emergency and the licensee shall provide an alternative supply of water to those affected.

9.4.4. In the event that monitoring of the slide slopes of the facility indicate that there may be a risk of slope failure this will be treated as an emergency.

*REASON: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

## **CONDITION 10 RECORDS**

10.1 The licensee shall keep the following documents at the facility office:-

- a) The current waste licence relating to the facility;
- b) The current EMS for the facility;
- c) The previous year's AER for the facility; and
- d) All written procedures produced by the licensee that relate to the licensed activities.

10.2 The licensee shall maintain a written record for each load of waste arriving at the facility, excluding those arriving at the Civic Waste Facility. The licensee shall record the following:-

- a) The date;
- b) The name of the carrier (including if appropriate, the waste collection permits details);
- c) The vehicle registration number;
- d) The name of the producer(s)/collector(s) of the waste as appropriate;
- e) The name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;
- f) A description of the waste including the associated EWC codes;
- g) The quantity of the waste, recorded in tonnes;
- h) The name of the person checking the load; and
- i) Where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed.

10.3 Written Records

The following written records shall be maintained by the licensee:-

- a) The types and quantities of waste recovered and disposed of at the facility each year. These records shall include the relevant EWC Codes;
- b) All training undertaken by facility staff;
- c) Results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;
- d) Details of all nuisance inspections; and
- e) The names and qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.

10.4 The licensee shall maintain a written record of all complaints relating to the operation of the facility. Each such record shall give details of the following:-

- a) Date and time of the complaint;
- b) The name of the complainant;
- c) Details of the nature of the complaint;
- d) Actions taken on foot of the complaint and the results of such actions; and



- e) The response made to each complainant.
- 10.5 A written record shall be kept of each consignment of leachate removed from the facility. The record shall include the following:-
- a) The name of the carrier;
  - b) The date and time of removal of leachate from the facility;
  - c) The volume of leachate, in cubic metres, removed from the facility on each occasion;
  - d) The name and address of the Waste Water Treatment Plant to which the leachate was transported; and
  - e) Any incidents or spillages of leachate during its removal or transportation.
- 10.6 A written record shall be kept for each load of waste departing from the Civic Waste Facility. The following shall be recorded:-
- a) The name of the carrier;
  - b) The vehicle registration number;
  - c) The destination of the waste (facility name and waste licence/permit number as appropriate);
  - d) A description of the waste (if recovered or rejected waste, the specific nature of the waste);
  - e) The quantity of waste, recorded in tonnes;
  - f) The name of the person checking the load; and
  - g) The time and date of departure.
- 10.7 A written record shall be kept at the facility of the programme for the control and eradication of vermin and fly infestations at the facility. These records shall include as a minimum the following:-
- a) The date and time during which spraying of insecticide is carried out;
  - b) Contractor details;
  - c) Contractor logs and site inspection reports;
  - d) Details of the rodenticide(s) and insecticide(s) used;
  - e) Operator training details;
  - f) Details of any infestations;
  - g) Mode, frequency, location and quantity of application; and
  - h) Measures to contain sprays within the facility boundary.

*REASON: To provide for the keeping of proper records of the operation of the facility.*

## **CONDITION 11 REPORTS AND NOTIFICATIONS**

- 11.1 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:-
- a) Be sent to Administration, Office of Environmental Enforcement (OEE) at the Agency's Headquarters;

- b) Comprise one original and three copies unless additional copies are required;
- c) Be formatted in accordance with any written instruction or guidance issued by the Agency;
- d) Include whatever information as is specified in writing by the Agency;
- e) Be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;
- f) Be submitted in accordance to the relevant reporting frequencies specified by this licence, such as in *Schedule E: Recording and Reporting to the Agency*, of this licence;
- g) Be accompanied by a written interpretation setting out their significance in the case of all monitoring data; an
- h) Be transferred electronically to the Agency's computer system if required by the Agency.

11.2 In the event of an incident occurring on the facility, the licensee shall:-

- a) Notify the Agency as soon as practicable and in any case not later than 1000 hrs the following working day after the occurrence of any incident;
- b) Submit a written record of the incident, including all aspects described in Condition 9.1(a-e), to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident;
- c) In the event of any incident which relates to discharges to surface water, notify the Eastern Regional Fisheries Board as soon as practicable and in any case not later than 1000 hrs on the following working day after such an incident; and
- d) Should any further actions be taken as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.

11.3 Waste Recovery Reports

Within six months of the date of grant of this licence, a report examining waste recovery options shall be submitted to the Agency for its agreement. This report shall address methods to contribute to the achievement of the recovery targets stated in national and European Union waste policies and shall include the following:-

- a) Proposals for the contribution of the facility to the achievement of targets for the reduction of biodegradable waste to landfill, going to landfills as specified in the Landfill Directive;
- b) The separation of recyclable materials from the waste;
- c) The recovery of metal waste and white goods including written procedures for the de-gassing of CFC's from refrigerators;
- d) The recovery of commercial waste, including cardboard;
- e) Inert waste to be used for cover/restoration material at the facility; and
- f) Proposals regarding the utilisation of energy from the gas utilisation plant.

11.4 Reports relating to Facility Operations

11.4.1 Achievement of Final Profile

Within three months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, proposals including timescales for landfilling and restoration to achieve the final profile/height of the facility to the Agency for its agreement.

#### 11.4.2. Operation in Adverse Wind Conditions

Within three months of the date of grant of this licence the licensee shall submit to the Agency for its agreement proposals for the operation of the facility in adverse wind conditions.

#### 11.5 Monitoring Locations

11.5.1 Within six months of the date of grant of this licence, the licensee shall submit to the Agency an appropriately scaled and updated drawing(s) showing all the monitoring locations that are stipulated in this licence. The drawing(s) shall include the reference code of each monitoring point.

#### 11.6 Annual Environmental Report

11.6.1 The licensee shall submit to the Agency for its agreement an Annual Environmental Report (AER) by 31<sup>st</sup> January each year.

11.6.2 The AER shall include as a minimum the information specified in *Schedule G: Content of Annual Environmental Report*, of this licence and shall be prepared in accordance with any relevant written guidance issued by the Agency.

*REASON: To provide for proper reports to and notifications to the Agency.*

## **CONDITION 12 CHARGES AND FINANCIAL PROVISIONS**

#### 12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of €27,817.93 or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Act, 1996. The licensee shall in 2004 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Public Sector Average Earnings Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 2003, the licensee shall pay a pro rata amount from the date of this licence to 31<sup>st</sup> December. This amount shall be paid to the Agency within one month of the date of grant of this licence.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased the licensee shall contribute such sums as determined by the Agency to defraying its costs in regard to items not covered by the said annual contribution.

#### 12.2 Financial Provision for Closure, Restoration and Aftercare

12.2.1 Within twelve months of the date of grant of this licence, the licensee shall arrange for an independent third party risk assessment of the facility to be carried out. The risk assessment shall have particular regard to any accidents, emergencies, or other incidents, which might occur at the facility and their effect on the environment. The risk assessment shall include a comprehensive and fully costed Environmental Liabilities Risk Assessment for the facility together with a proposal for Financial Provision arising from the carrying on of the activities to which this licence relates including the restoration of the facility as required by this licence.

12.2.2 The licensee shall from a date to be set by the Agency, establish and maintain a fund, or provide a written guarantee, that is adequate to assure the Agency that the licensee is at all times financially capable of implementing the Restoration and Aftercare Plan required by Condition 4. The type of fund established and means of its release/recovery shall be agreed by the Agency prior to its establishment.

12.2.3 The licensee shall provide a statement in writing to the Agency on an annual basis as part of the AER in respect of the determination of charges for the disposal of waste. The Statement shall be in accordance with the requirements of SI 337 of 2002 European Communities (Amendment of Waste Management (Licensing) Regulations, 2000) Regulation, 2002.

12.2.4 Unless otherwise agreed any revision to the fund shall be computed using the following formula:-

$$\text{Cost} = (\text{ECOST} \times \text{WPI}) + \text{CiCC}$$

Where:-

Cost = Revised restoration and aftercare cost

ECOST = Existing restoration and aftercare cost

WPI = Appropriate Wholesale Price Index [Capital Goods, Building & Construction (i.e. Materials & Wages) Index], as published by the Central Statistics Office, for the year since last closure calculation/revision.

CiCC = Change in compliance costs as a result of change in site conditions, changes in law, regulations, regulatory authority charges, or other significant changes.

### 12.3 Cost of landfill of waste

The licensee shall ensure the costs in the setting up, operation of, provision of financial security and closure and after-care for a period of at least 30 years shall be covered by the price to be charged for the disposal of waste at the facility.

*REASON: To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.*

## SCHEDULE A : Waste Acceptance

### A.1 Waste Acceptance

*Table A.1 Waste Categories and Quantities*

Waste Type	Maximum (Tonnes Per Annum) <sup>Note 1</sup>
Household	35,500
Commercial	10,000
Waste accepted at civic waste facility	2,500
Wastes imported for restoration purposes	22,000
<b>TOTAL</b>	<b>70,000</b>

**Note 1:** The tonnage of household waste, commercial waste, waste accepted at the Civic Waste Facility and waste accepted for restoration purposes may be altered with the prior agreement of the Agency provided that the total amount of these wastes accepted at the facility does not exceed the combined tonnage of 70,000 tonnes per annum (as specified in the total above).

## SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Development of the facility including preparatory works.
Final capping.
Installation of Landfill Gas Management Infrastructure.
Installation of Leachate Management Infrastructure.
Installation of Surface Water Management Infrastructure.
Any other works notified in writing by the Agency.

# SCHEDULE C : Emission Limits

## C.1 Noise Emissions:

Measured at the locations indicated in *Table D.1.1. – Noise Sensitive Locations*

Day Db(A) L <sub>Aeq</sub> (30 minutes)	Night dB(A) L <sub>Aeq</sub> (30 minutes)
55	45

## C.2 Landfill Gas Concentration Limits:

(Measured in any building on or adjacent to the facility).

Methane	Carbon Dioxide
20 % LEL (1% v/v)	1.5 % v/v

## C.3 Dust Deposition Limits:

(Measured at the monitoring points indicated in *Table D.1.1*).

Level (mg/m <sup>2</sup> /day) <sup>Note 1</sup>
350

**Note 1:** 30 day composite sample with the results expressed as mg/m<sup>2</sup>/day.

## C.4 Surface Water Discharge Limits:

Measured at the Surface Waster Discharge points agreed under Condition 3.14.2.

Level (Suspended Solids mg/l)
35

## C.5 Emission Limits Values for Landfill Gas Plant

Emission Point Reference numbers: To be agreed with Agency in advance.

Volume to be emitted: 3000m<sup>3</sup>/hr (unless otherwise agreed with the Agency).

Minimum discharge height: 5m (unless otherwise agreed with the Agency).

Parameter	Flare (enclosed) Emission Limit Value <sup>Note 1,2</sup>	Utilisation Plant Emission Limit Value <sup>Note 1,2</sup>
Nitrogen oxides (NO <sub>x</sub> )	150 mg/m <sup>3</sup>	500 mg/m <sup>3</sup>
CO	50 mg/m <sup>3</sup>	1,400 mg/m <sup>3</sup>
Particulates	Not applicable	130 mg/m <sup>3</sup>
Total Volatile Organic Compounds (VOCs)	Not applicable	1,000 mg/m <sup>3</sup>
Total non-methane VOCs	Not applicable	75 mg/m <sup>3</sup>
Total organic carbon (TOC)	10 mg/m <sup>3</sup>	Not applicable
Hydrogen Chloride	50 mg/m <sup>3</sup> (at mass flows > 0.3 kg/h)	50 mg/m <sup>3</sup> (at mass flows > 0.3 kg/h)
Hydrogen Fluoride	5 mg/m <sup>3</sup> (at mass flows > 0.05 kg/h)	5 mg/m <sup>3</sup> (at mass flows > 0.05 kg/h)

**Note 1:** Dry gas referenced to 5% oxygen by volume for utilisation plants and 3% oxygen by volume for flares.

**Note 2:** These emission limit values may be revised with the agreement of the Agency on the basis of the technology employed.

# SCHEDULE D : Monitoring

## D.1 Monitoring Locations

Monitoring locations shall be those as set out in Table D.1.1 and Attachment F of the application.

**Table D.1.1** Monitoring Locations

Landfill Gas within Waste and Boundary Locations	Landfill Gas Flare/Utilisation Plant	Dust Deposition	Noise	Surface Water	Ground Water	Leachate
Stations		Stations	Stations	Stations	Stations	Stations
<b>Within Waste</b> LB2, LB3 LB4, LB5 LB6, LB7 LB8, LB12 LB13, LB14 LB 15, LB16	LFGF1 LFGU1 Note 1	D.1 D.2 D.3	<b>Noise Sensitive Locations (NSLs)</b> Fox residence Carley residence Pearson Residence	<b>Locations on River Slaney</b> S1 S2 S3	GW1 GW9 GW10 GW11 GW17 GW18 GW19	Leachate Storage Tank Note 2
<b>Boundary locations</b> GW1, GW9 GW10, GW11 GW 17, GW18 GW19, GBH1 GBH2, Vent 1, Vent 2			<b>Other Locations</b> Reed Beds Point 1, Point 2, Point 4, Point 5, Point 6, Point 7	<b>Locations on on-site water courses</b> SW1 SW2		LB2, LB3, LB4, LB5 LB6, LB7, LB8, LB12
				<b>Discharge Points</b> Locations to be agreed under Condition 3.14.2.		

**Note 1:** Monitoring of the Landfill Gas Utilisation Plant shall commence within one month of the date of commissioning of the plant at the frequency indicated in Schedule D.7.

**Note 2:** Samples from the leachate storage tank should be analysed for leachate composition. All other leachate monitoring locations should be monitored for levels.

## D.2 Landfill Gas

**Table D.2.1** Landfill Gas Monitoring Parameters, Frequency and Technique

Parameter	Monitoring Frequency		Analysis Method <sup>Note1</sup> /Technique <sup>Note2</sup>
	Gas Boreholes/ Vents/Wells	Site Office	
Methane (CH <sub>4</sub> ) % v/v	Monthly	Weekly	Infrared analyser/flame ionisation detector
Carbon dioxide (CO <sub>2</sub> ) % v/v	Monthly	Weekly	Infrared analyser/ flame ionisation detector
Oxygen (O <sub>2</sub> ) % v/v	Monthly	Weekly	Electrochemical cell
Atmospheric Pressure	Monthly	Weekly	Standard
Temperature	Monthly	Weekly	Standard

**Note 1:** All monitoring equipment used should be intrinsically safe.

**Note 2:** Or other methods agreed in advance with the Agency.

## D.3 Dust

**Table D.3.1** Dust Monitoring Frequency and Technique

Parameter (mg/m <sup>2</sup> /day)	Monitoring Frequency	Analysis Method/Technique
Dust	Three times a year <sup>Note 2</sup>	Standard Method <sup>Note 1</sup>

**Note 1:** Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). Any modifications to eliminate interference due to algae growth in the gauge should be reported to the Agency.

**Note 2:** Twice during the period May to September.

## D.4 Noise

**Table D.4.1** Noise Monitoring Frequency and Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
L(A) <sub>EQ</sub> [30 minutes]	Annual	Standard <sup>Note 1</sup>
L(A) <sub>10</sub> [30 minutes]	Annual	Standard <sup>Note 1</sup>
L(A) <sub>90</sub> [30 minutes]	Annual	Standard <sup>Note 1</sup>
Frequency Analysis (1/3 Octave band analysis)	Annual	Standard <sup>Note 1</sup>

**Note 1:** "International Standards Organisation. ISO 1996. Acoustics - description and Measurement of Environmental noise. Parts 1, 2 and 3."



## D.5 Surface Water, Groundwater and Leachate

Table D.5.1 Water and Leachate - Parameters / Frequency

PARAMETER <sup>Note 1</sup>	SURFACE WATER <sup>Note 2</sup>	GROUNDWATER	LEACHATE <sup>Note 3</sup>
	Monitoring Frequency	Monitoring Frequency	Monitoring Frequency
Visual Inspection/Odour <sup>Note 2</sup>	Weekly	Not Applicable	Not Applicable
Groundwater Level	Not Applicable	Monthly	Not Applicable
Leachate Level	Not Applicable	Not Applicable	Weekly
Ammoniacal Nitrogen	Quarterly	Quarterly	Annually
BOD	Quarterly	Not Applicable	Annually
COD	Quarterly	Not Applicable	Annually
Chloride	Quarterly	Quarterly	Annually
Dissolved Oxygen	Quarterly	Quarterly	Not Applicable
Electrical Conductivity	Quarterly	Quarterly	Annually
Ph	Quarterly	Quarterly	Annually
Total Suspended Solids	Quarterly	Not Applicable	Not Applicable
Temperature	Quarterly	Quarterly	Quarterly
Metals / non metals <sup>Note 3</sup>	Annually	Annually	Annually
Cyanide (Total)	Not Applicable	Annually	Annually
Fluoride	Not Applicable	Annually	Annually
List I/II organic substances <sup>Note 4</sup>	Once off <sup>Note 5</sup>	Annually <sup>Note 5</sup>	Once off <sup>Note 5</sup>
Mercury	Annually	Annually	Annually
Sulphate	Annually	Annually	Annually
Total Alkalinity	Annually	Annually	Not applicable
Total P/orthophosphate	Annually	Annually	Annually
Total Oxidised Nitrogen	Annually	Annually	Annually
Total Organic Carbon	Not Applicable	Quarterly	Not Applicable
Residue on evaporation	Not Applicable	Annually	Not Applicable

**Note 1:** All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.

**Note 2:** Where there is evident gross contamination of leachate, additional samples should be analysed.

**Note 3:** Metals and elements to be analysed by AA/ICP should include as a minimum: boron, cadmium, calcium, chromium (total), copper, iron, lead, magnesium, manganese, nickel, potassium, sodium and zinc.

**Note 4:** Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list I/II Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include: volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (USEPA method 525 or equivalent, and pesticides (USEPA method 608 or equivalent).

**Note 5:** 2 surface water locations, 3 groundwater locations and 2 leachate locations to be agreed with the Agency for these parameters.

## D.6 Meteorological Monitoring

**Table D.6.1** Meteorological Monitoring:

At the location specified in Section F.6 - Meteorological Data in the Waste Licence application or other location agreed with the Agency.

Parameter	Monitoring Frequency	Analysis Method/Technique
Precipitation Volume	Daily	Standard
Temperature (min/max.)	Daily	Standard
Wind Force and Direction	Daily	Standard
Evaporation	Daily	Standard
Evapotranspiration <sup>Note 1</sup>	Daily	Standard
Humidity	Daily	Standard
Atmospheric Pressure <sup>Note 1</sup>	Daily	Standard

**Note 1:** Monitoring frequency for these parameters may be decreased with the agreement of the Agency.

## D.7 Landfill Gas Combustion Plant/Enclosed Flare

Location(s): **to be agreed in advance with the Agency.**

**Table D.7.1** Landfill Gas Utilisation Plant/Enclosed Flare Parameters and Monitoring Frequency

Parameter	Flare (enclosed)	Utilisation Plant	Analysis Method <sup>Note1</sup> /Technique <sup>Note2</sup>
	Monitoring Frequency	Monitoring Frequency	
Inlet			
Methane (CH <sub>4</sub> ) % v/v	Continuous	Weekly	Infrared analyser/flame ionisation detector/thermal conductivity
Carbon dioxide (CO <sub>2</sub> ) % v/v	Continuous	Weekly	Infrared analyser/thermal conductivity
Oxygen (O <sub>2</sub> ) % v/v	Continuous	Weekly	Electrochemical/thermal conductivity
Total Sulphur	Annually	Annually	Ion chromatography
Total Chlorine	Annually	Annually	Ion chromatography
Total Fluorine	Annually	Annually	Ion Selective Electrode
Process Parameters			
Combustion Temperature	Continuous	Quarterly	Temperature Probe/datalogger
Outlet			
CO	Continuous	Continuous	Flue gas analyser/datalogger
NO <sub>x</sub>	Annually	Annually	Flue gas analyser
SO <sub>2</sub>	Annually	Annually	Flue gas analyser
Particulates	Not applicable	Annually	Isokinetic/Gravimetric
Total VOCs	Not applicable	Annually	Flame ionisation
Total non-methane VOCs	Not applicable	Annually	Adsorption-thermal desorption
TOC	Annually	Not applicable	Flame ionisation
Hydrochloric acid	Annually	Annually	Impinger /Ion Chromatography
Hydrogen fluoride	Annually	Annually	Impinger /Ion Chromatography

**Note 1:** All monitoring equipment used should be intrinsically safe.

**Note 2:** Or other methods agreed in advance with the Agency.

## SCHEDULE E : Recording and Reporting to the Agency

Report	Reporting Frequency <sup>Note1</sup>	Report Submission Date
<b>Environmental Management System Updates</b>	Annually	One month after the end of the year reported on.
<b>Annual Environment Report (AER)</b>	Annually	By 31 <sup>st</sup> January 2004 and within one month of the end of each year thereafter.
<b>Record of incidents</b>	As they occur	Within five days of the incident.
<b>Bund, tank and container integrity assessment</b>	Every three years	Six months from the date of grant of licence and one month after end of the three year period being reported on.
<b>Specified Engineering Works reports</b>	As they arise	Prior to the works commencing.
<b>Flare unit efficiency testing</b>	Every three years	Three months from the date of grant of licence and one month after the end of each three year period being reported on.
<b>Monitoring of landfill gas</b>	Quarterly	Ten days after end of the quarter being reported on.
<b>Monitoring of Surface Water Quality</b>	Quarterly	Ten days after end of the quarter being reported on.
<b>Monitoring of Groundwater Quality</b>	Quarterly	Ten days after end of the quarter being reported on.
<b>Monitoring of Leachate</b>	Quarterly	Ten days after end of the quarter being reported on.
<b>Meteorological Monitoring</b>	Annually	One month after end of the year being reported on.
<b>Dust Monitoring</b>	Three times a year	Ten days after the period being reported on
<b>Noise Monitoring</b>	Annually	One month after end of the year being reported on.
<b>Topographical Survey</b>	Annually	Six months from the date of grant of licence and one month after the end of each year being reported on.
<b>Side slope stability assessment</b>	Annually	Six months from the date of grant of licence and one month after the end of each year being reported on.
<b>Any other monitoring</b>	As they occur	Within ten days of obtaining results.

**Note 1:** Unless altered at the request of the Agency.

## SCHEDULE F : Acceptance of Inert Waste

### *F.1 Acceptable Waste for Recovery*

Only the wastes listed below are acceptable for recovery at the facility, unless otherwise agreed with the Agency.

	WASTE
Topsoil	Solid Road Planings, Solid Tarmacadam, Solid Asphalt
Subsoil	Brickwork
Stone, Rock and Slate	Natural Sand
Clay, Pottery and China	Concrete

# **SCHEDULE G : Content of the Annual Environmental Report**

## **Annual Environmental Report Content**

Reporting Period.

Waste activities carried out at the facility.

Quantity and Composition of waste received, disposed of and recovered during the reporting period and each previous year.

Calculated remaining capacity of the facility and year in which final capacity is expected to be reached.

Methods of deposition of waste.

Summary report on emissions.

Summary of results and interpretation of environmental monitoring.

Resource and energy consumption summary.

Proposed development of the facility and timescale of such development.

Volume of leachate produced and volume of leachate transported / discharged off-site.

Report on development works undertaken during the reporting period, and a timescale for those proposed during the coming year.

Report on restoration of completed cells/phases.

Site survey showing existing levels of the facility at the end of the reporting period.

Estimated annual and cumulative quantities of landfill gas emitted from the facility.

Estimated annual and cumulative quantity of indirect emissions to groundwater.

Annual water balance calculation and interpretation.

Report on the progress towards achievement of the Environmental Objectives and Targets contained in previous year's report.

Schedule of Environmental Objectives and Targets for the forthcoming year.

Full title and a written summary of any procedures developed by the licensee that relates to the facility operation during the year.

Tank, pipeline and bund testing and inspection report.

Reported incidents and Complaints summaries.

Review of Nuisance Controls.

Ecological survey report.

Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.

Report on training of staff.

Any other items specified by the Agency.

**Signed on behalf of the said Agency**

on the 28th day of October, 2003

\_\_\_\_\_  
Patrick J. Nolan, **Authorised Person**