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County Wexford, Ireland

WASTE LICENCE
PROPOSED DECISION

Waste Licence	93-1
Register Number:	
Applicant:	Cavan County Council
Location of Facility:	Ballyjamesduff Landfill, Derrylurgan, Ballyjamesduff, Co. Cavan

INTRODUCTION

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

This licence is for the closure and restoration of a non-hazardous landfill at Derrylurgan, Ballyjamesduff, Co. Cavan.

Cavan County Council will only be permitted to accept inert waste for capping/restoration purposes. However, the hardstanding area located adjacent to the facility entrance may continue to be used as a Bring Centre for the collection of a limited range of recyclable materials. The licence provides, subject to the prior agreement of the Agency, for the upgrading of the Bring Centre to a Civic Waste Facility for the recovery and disposal of waste, but not for use as a Waste Transfer Station.

The restoration of the landfill part of the facility shall include the installation and upgrading of boundary fencing, profiling of deposited waste to achieve a more natural and stable landform, the provision of a final capping layer, a landfill gas venting system, some additional monitoring boreholes, surface water control works and landscaping.

Cavan County Council must manage and operate the facility to ensure that the activities do not cause environmental pollution. The County Council is required to carry out regular environmental monitoring and submit all monitoring results, as well as a wide range of reports on the operation and management of the facility, to the Agency.

This licence sets out in detail the conditions under which Cavan County Council shall operate and manage this facility

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DECISION & REASONS FOR THE DECISION

The Environmental Protection Agency (The Agency) is satisfied, on the basis of the information available, that the waste activities licensed hereunder will comply with the requirements of Section 40(4) of the Waste Management Act, 1996.

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 40(1) of the said Act, to grant this Waste Licence to Cavan County Council to carry on the waste activities listed below at Ballyjamesduff Landfill, Derrylurgan, Ballyjamesduff, Co. Cavan subject to twelve 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

Class 13.	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. This activity is limited to the storage of unacceptable waste and wastes accepted for eventual disposal at a Civic Waste Facility (if installed in accordance with Condition 3) pending dispatch from the facility.
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Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act 1996

Class 2.	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes): This activity is limited to the acceptance of green waste for shredding for reuse as per Condition 5 and inert wastes for the restoration of the landfill. Composting is not permitted at the facility.
Class 4.	Recycling or reclamation of other inorganic materials: This activity is limited to the acceptance of inert wastes for the restoration of the landfill.
Class 11.	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule: This activity is limited to the use of compost obtained from another facility for soil enhancement for restoration purposes at the facility.
Class 13.	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: This activity is limited to the storage of inert waste for the restoration of the facility, and the storage of recovered waste at the Bring Centre (or a Civic Waste Facility if installed in accordance with Condition 3) pending dispatch to other facilities for reuse/recycling. Glass, aluminium cans and textile banks and green waste accepted in accordance with Condition 5 are permitted. All other waste types must have the prior agreement of the Agency.

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 40(1) of the said Act to refuse the following classes of activities.

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

Class 1.	Deposit on, in or under land (including landfill): Reason: The Agency is not satisfied, on the basis of information available and the confirmation given in the application that the applicant does not intend to line the site, that emissions from the activity will comply with and not contravene any of the requirements of Section 40(4) of the Waste Management Act, 1996.
Class 4.	Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons: Reason: The applicant, during the course of the application process, confirmed that no sludges would be accepted at this facility. The Agency is not satisfied, on the basis of information available, that emissions from the activity will comply with and not contravene any of the requirements of Section 40(4) of the Waste Management Act, 1996.

*Refused waste recovery activities, in accordance with the Fourth Schedule
of the Waste Management Act, 1996*

Class 3.	Recycling or reclamation of metals and metal compounds: Reason: Class 13 of this schedule provides for the recovery of metal as applied for.
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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.

Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Adequate lighting	20 lux measured at ground level.
Agreement	Agreement in writing.
Annually	At approximately twelve monthly intervals.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
Application	The application by the licensee for this waste licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
Bring Centre	An area for the acceptance of recyclable materials.
Civic Waste Facility	A supervised area installed in accordance with Condition 3 in which a broad range of wastes, subject to the prior agreement of the Agency, may be accepted for recycling and/or eventual disposal at another appropriate facility.
Condition	A condition of this licence.
Construction and Demolition Waste	All wastes which arise from construction, renovation and demolition activities.
Containment boom	A boom which can contain spillages and prevent them from entering drains or watercourses.
Cover material	Bricks, crushed concrete, tarmac, earth, soil, sub-soil, stone, rock or other similar natural materials; or other cover material the use of which has been agreed with the Agency.
Daytime	8.00 a.m. to 10.00 p.m.
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emergency	Those occurrences defined in Condition 9.4
Emission Limits	Those limits, including concentration limits and deposition levels established in Schedule C.
European Waste Catalogue (EWC)	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.

Green waste	Waste wood (excluding timber), Christmas trees, plant matter such as grass cuttings, and other vegetation.
Hours of Operation	The hours during which the facility is authorised to be operational. The hours of operation of a facility are usually longer than the hours of waste acceptance to facilitate preparatory and completion works.
Hours of Waste Acceptance	The hours during which the facility is authorised to accept waste
Inert waste	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.
Intermediate Cover	Refers to placement of material (minimum 300mm if soil is used) for a period of time prior to restoration or prior to further disposal of waste.
Landfill	Refers to the area of the facility where the waste is disposed of by placement on the ground or on other waste.
Landfill Gas	Gases generated from the landfilled waste.
LEL (Lower Explosive Limit)	The lowest percentage concentration by volume of a mixture of flammable gas with air which will propagate a flame at 25°C and atmospheric pressure.
Licence	A Waste Licence issued in accordance with the Act.
Licensee	Cavan County Council.
List I/II Organics	Substances classified pursuant to EC Directives 76/464/EEC and 80/68/EEC.
Liquid Waste	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
Maintain	Keep in a fit state, including such regular inspection, servicing and repair as may be necessary to adequately perform its function.
Monthly	A minimum of 12 times per year, at approximately monthly intervals.
Night-time	10.00 p.m. to 8.00 a.m.
Recyclable Materials	Those waste types, such as cardboard, batteries, gas cylinders, etc, which may be recycled.
Quarterly	At approximately three monthly intervals.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
Sludge	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment with between 2% and 14% dry matter.
Specified Emissions	Those emissions listed in Schedule C: Emission Limits of this licence.

Specified Engineering Works	Those engineering works listed in Schedule B: Specified Engineering Works of this licence.
Trigger Level	A parameter value specified in the licence, the achievement or exceedance of which requires certain actions to be taken by the licensee.
White Goods	Refrigerators, cookers, ovens and other similar appliances.
EPA Working Day	Refers to the following hours; 9.00 a.m. to 5.30 p.m. Monday to Friday inclusive.

PART II 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. *Figure B.2.1* (dated 24/2/99) of the application. 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. Only inert waste may be accepted at the landfill for the purposes of covering, capping and restoration of the landfill subject to the maximum quantities and other constraints listed in Schedule A: Waste Acceptance. Segregated municipal or commercial waste only may be accepted at the Bring Centre (or Civic Waste Facility if installed in accordance with Condition 3) subject to the maximum quantities and other constraints listed in Schedule A: Waste Acceptance.
- 1.5. Waste Acceptance Hours and Hours of Operation
 - 1.5.1. Landfill
 - 1.5.1.1. Waste shall only be accepted at the facility between the hours of 8.30am and 4.00pm Monday to Friday inclusive and 9.00am to 12.30pm on Saturdays.
 - 1.5.1.2. The landfill at the facility shall only be operated during the hours of 8.00am and 4.30pm Monday to Friday inclusive and 8.30am to 1.00pm on Saturdays unless otherwise agreed.
 - 1.5.1.3. Waste shall not be accepted at the landfill on Bank Holidays.
 - 1.5.2. Bring Centre/ Civic Waste Facility
 - 1.5.2.1. Waste shall only be accepted at the Bring Centre or the Civic Waste Facility (if installed in accordance with Condition 3) between the hours 8.30am and 4.00pm Monday to Friday inclusive and 9.00am to 12.30pm on Saturdays.
- 1.6 The following shall constitute an incident for the purposes of this licence:
 - a) an emergency;
 - b) any emission which does not comply with the requirements of this licence;

- c) any trigger level specified in this licence which is attained or exceeded; and
- d) any indication that environmental pollution has, or may have, taken place.

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; and

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.

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 and experienced facility manager 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 A Civic Waste Facility, if installed in accordance with Condition 3, shall be supervised by an appropriately qualified and competent person at all times while waste may be accepted.

2.1.3 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 The management structure of the facility shall be as outlined in Attachment L.2 of the application unless otherwise agreed by 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 Corrective Action Procedures

- 2.3.1 Within six months of the date of grant of this licence the licensee shall establish and maintain written Corrective Action Procedures to ensure that corrective action is taken should the requirements of this licence not be fulfilled.

2.4 Awareness and Training Programme

- 2.4.1 Within six months of the date of grant of this licence the licensee shall establish and maintain an Awareness and Training Programme which shall identify training needs for personnel who work in, or have responsibility for, the licensed facility.

2.5 Communications Programme

- 2.5.1 The licensee shall establish and maintain a Communications Programme to ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility. This shall be established within six months of the date of grant of the licence.

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.

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*, 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;
- f) that the landfill is closed and is only permitted to accept inert waste for the purpose of restoration and aftercare of the facility; and,
- g) where environmental information relating to the facility can be obtained.

3.4 Facility Security

3.4.1 Perimeter security and stockproof fencing (sheep standard) and gates shall be installed and maintained at the locations shown on Drawing No. J005B-03 *Proposed Restored Layout*. The design of the security fence shall be as shown in Drawing No. SK-01 *Fencing Details* with the proviso that the base of the security fencing shall be set in the ground.

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 Hardstanding

3.5.1 Effective site roads shall be provided and maintained as outlined in Attachment F.5-*Road Cleansing* (submitted to the Agency on 16/8/2000) to ensure the safe movement of vehicles within the facility.

3.5.2 A hardstanding area (minimum area of 900 m²) shall be maintained at the north-western corner of the facility immediately adjacent to the facility entrance.

3.6 Waste Water

3.6.1 Any domestic waste water produced within the facility shall be collected for treatment at an appropriate waste water treatment plant.

3.7 Tank and Drum Storage Areas

3.7.1 No fuel or oil shall be stored on the facility unless and in accordance with the prior agreement of the Agency.

3.8 Buffer Zone

3.8.1 A Buffer Zone, in which no materials other than for the purpose of landscaping shall be placed, shall be provided and maintained within the facility. The following are minimum buffer zones for the facility:

- a) Four metres from the northern boundary;
- b) Eleven metres from the eastern boundary;
- c) Seven metres from the southern boundary; and,
- d) Two metres from the western boundary.

3.9 Landfill Gas Management

3.9.1 Landfill gas management infrastructure shall be provided and maintained at the facility as described in Attachment D.5 *Landfill Gas Management* of the application.

3.9.2 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.

3.10 Surface Water Management

3.10.1 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 discharges into surface water drains and courses;
- b) the collection/diversion of run off arising from capped and restored areas as described in *Surface Water 2* of the further information submitted to the Agency on 3/5/2001; and,
- c) surface water cut-off drains shall be provided and maintained as described in *Surface Water 2* of the further information submitted to the Agency on 3/5/2001 subject to a minimum set back of ten metres from the restored landfill.

3.11 Bring Centre/Civic Waste Facility

3.11.1 A Bring Centre may be located on the facility parking area which is located at the north-western corner of the facility.

3.11.2 The licensee may provide and maintain glass, aluminium, textile and green waste (accepted in accordance with Condition 5) receptacles in the Bring Centre. Additional holding containers for other types of segregated recyclable materials may be placed in the Bring Centre subject to the prior agreement of the Agency.

3.11.3 The Bring Centre may be upgraded to a Civic Waste Facility subject to the prior agreement of the Agency.

3.12 Monitoring Infrastructure

3.12.1 Landfill Gas

- a) Within nine months from the date of grant of this licence, the licensee shall install three landfill gas migration monitoring wells adjacent to the western and southern boundaries of the facility.

3.12.2 Groundwater

- a) Within seven months of the date of grant of this licence, the licensee shall submit a detailed review of the direction of bedrock groundwater flow in the vicinity of the facility. A minimum of two downgradient and one upgradient bedrock monitoring boreholes shall be provided, and the licensee shall include in the review proposals for any additional boreholes to meet this requirement. Any additional boreholes required shall be installed within nine months of the date of grant of this licence.

3.12.3 Leachate

- a) Within nine months from the date of grant of this licence, the licensee shall install a second monitoring point in the landfill extension area to allow for the appropriate sampling and analyses of leachate.

3.12.4 Topography

- a) A fixed benchmark, referenced in situ to metres above Ordnance Datum Malin Head, shall be provided near the facility entrance within six months of the date of grant of this licence.

3.12.5 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 final height of the facility shall not exceed 100m AOD Malin.
- 4.2. The restoration of the landfill facility shall be completed within thirty months of the date of grant of this licence.
- 4.3. Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement a revised restoration and aftercare plan which provides, inter alia, for the following:
 - a) the landfill shall be profiled into a single entity such that side slopes do not exceed a 1:3 (vertical:horizontal) slope, with all other slopes facilitating surface water run-off, and such that visual integration into the surrounding landscape is maximised;
 - b) buffer zones as specified by Condition 3;

- c) a hedgerow of native species shall be established and maintained inside the western and southern boundaries of the landfill within twelve months of the date of grant of this licence. The existing trees inside the eastern boundary shall be retained.
- d) landscaping of the remainder of the facility as a habitat for local flora and fauna;
- e) appropriate aftercare for plantings;
- f) a revised version of drawing number J005B-04 *Surface Water Management Layout* which takes account of the requirements of this licence; and,
- g) a time-scaled phasing plan which provides for any necessary waste profiling, the installation of the final cap and landfill gas control system, and landscaping.

4.4. Final Capping

4.4.1. 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 1×10^{-4} m/s;
- d) compacted mineral layer of a minimum 0.6m thickness with a permeability of less than 1×10^{-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.

4.5. 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

4.6. Where tree planting is to be carried out above waste-filled areas, a synthetic barrier shall be used to augment the clay cap.

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 Waste Acceptance and Characterisation Procedures

5.1.1 Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement written procedures for the acceptance and handling of all wastes accepted as part of the restoration and aftercare plan

5.1.2 All wastes shall be checked and any wastes not suitable for acceptance shall be removed for recovery or disposal at an appropriate alternative facility.

5.2 Intermediate Cover

5.2.1 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 waste suitable for specified engineering works is exposed.

5.2.2 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.

5.3 Operational Controls

5.3.1 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.

5.3.2 Scavenging shall not be permitted at the facility.

5.3.3 Gates shall be locked shut when the facility is unsupervised.

5.3.4 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.

5.3.5 All tanks and drums shall be labelled to clearly indicate their contents.

5.3.6 No smoking shall be allowed on the facility.

5.4 Green Waste

5.4.1 Green waste will be shredded for reuse as outlined in the additional information (section *B.9 Type of Activity*) submitted to the Agency on 12th April 2001. A maximum of 0.5 tonnes of green waste, unless agreed otherwise by the Agency, shall be held in a suitable container(s) on the facility at any one time.

5.5 Off-site Disposal and Recovery

5.5.1 Waste sent off-site for recovery or disposal shall only be conveyed by a waste contractor agreed by the Agency.

5.5.2 All waste transferred from the facility shall only be transferred to an appropriate facility agreed by the Agency.

5.5.3 All wastes removed off-site for recovery or disposal shall be transported from the facility to the consignee in a manner which will not adversely affect the environment.

5.6 Civic Waste Facility

5.6.1 The Civic Waste Facility, if installed in accordance with Condition 3, 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.

5.6.2 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; or
- d) in the case where inspection is required, into a designated inspection area.

5.6.3 The licensee shall assign and clearly label each container at the Civic Waste Facility to indicate their contents.

5.6.3 At the end of the working day the floor of the Civic Waste Facility, any hopper and any compactor shall be cleared of waste.

5.7 Maintenance

- 5.7.1 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.
- 5.7.2 The licensee shall maintain and clearly label and name all sampling and monitoring locations.

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; and
 - b) Carbon dioxide, greater than or equal to 1.5% v/v.
- 6.4. Emissions to Surface Water
- 6.4.1. No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.
- 6.4.2. Clean surface water collected from the final cap shall be discharged to the Pound River as shown on drawing number J005B-04, revision A, *Surface Water Management Layout*.
- 6.4.3. During development of the cap, adequate measures shall be taken to prevent surface water contamination by suspended solids.

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

Condition 7 NUISANCES

- 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 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.
- 7.3.2 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 Bird Control

- 7.5.1 Birds shall be prevented from gathering on and feeding 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 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 only upon the written instruction of the Agency 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. Landfill Gas
 - 8.5.1. All landfill gas monitoring equipment, other than permanent monitoring systems within buildings, shall be certified as being intrinsically safe.
- 8.6. Topographical Survey
 - 8.6.1. A topographical survey shall be carried out within three months of the date of grant of this licence. It shall be repeated one month after the completion of the final capping. The survey shall be in accordance with any written instructions issued by the Agency.
- 8.7. Stability Assessment
 - 8.7.1. 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.

8.8. Nuisance Monitoring

- 8.8.1. 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.

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;
- f) provide a proposal to the Agency for its agreement within one month of the incident occurring to:
 - i) identify and put in place measures to avoid reoccurrence of the incident; and,
 - ii) 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, submit a 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.

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 side slopes of the facility indicate that there may be a risk of slope failure this will be treated as an emergency.

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 previous year's AER for the facility; and,
 - c) all written procedures produced by the licensee which relate to the licensed activities.
- 10.2 Written Records
- The following written records shall be maintained by the licensee:
- a) the types and quantities (recorded in tonnes) 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) details of all nuisance inspections; and
 - d) 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.
- 10.3 The licensee shall maintain a written record of all complaints relating to the operation of the activity. 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.
- 10.4 A written record shall be kept for each load of waste departing from the Bring Centre. The following shall be recorded:
- a) the name of the carrier;
 - b) the destination of the waste (facility name and waste licence/permit number as appropriate);
 - c) the specific nature of the waste;
 - d) the quantity of waste, recorded in tonnes; and,
 - e) the time and date of departure.
- 10.5 A written record shall be kept for each load of waste departing from the Civic Waste Facility, if installed in accordance with Condition 3. 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.
- 10.6 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 the Agency's headquarters;
 - b) comprise one original and four 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;
 - g) be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and
 - 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 10.00 am 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; and
- c) in the event of any incident which relates to discharges to surface water, notify the Shannon Regional Fisheries Board as soon as practicable and in any case not later than 10:00am on the following working day after such an incident.
- 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 Monitoring Locations

11.3.1. Within six months of the date of grant of this licence, the licensee shall submit to the Agency an appropriately scaled 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.

11.3.2. Within three months of the date of grant of this licence, the licensee shall submit to the Agency the elevation in metres above Ordnance Datum (Malin Head) of all monitoring wells (top of casing) associated with the facility.

11.4 Annual Environmental Report

11.4.1. The licensee shall submit to the Agency for its agreement, within thirteen months from the date of grant of this licence, and within one month of the end of each year thereafter, an Annual Environmental Report (AER).

11.4.2. The AER shall include as a minimum the information specified in Schedule F. Content of Annual Environmental Report and shall be prepared in accordance with any relevant written guidance issued by the Agency.

REASON: To provide for proper report to and notification of 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 £4,489 (€5,700) 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 2002 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 2001, the licensee shall pay a pro rata amount from the date of this licence to 31st 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.

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
Inert waste at the landfill for cover, development and restoration purposes only	50,000 tonnes
Segregated Municipal and Commercial wastes at the Bring Centre (collection for recovery only) or at a Civic Waste Facility if installed in accordance with Condition 3 and operated in accordance with Condition 5 (collection for recovery and collection for disposal at an appropriate facility)	5,000 tonnes per annum

SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Restoration./Afteruse
Final capping.
Civic Waste Facility
Installation of Landfill Gas Management Infrastructure
Installation of Leachate Management Infrastructure
Installation of Groundwater Control 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 monitoring points indicated in *Table D.1.1*).

Day dB(A) L _{Aeq} (30 minutes)	Night dB(A) L _{Aeq} (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

SCHEDULE D :Monitoring

Monitoring to be carried out as specified below.

D.1 Monitoring Locations

Table D.1.1 Monitoring Locations

LANDFILL GAS	NOISE	SURFACE WATER	GROUND WATER	LEACHATE
STATIONS	STATIONS <small>Note 2</small>	STATIONS	STATIONS <small>Note 3</small>	STATIONS
MW1	N3	SW1	MW9	MW8
MW2	N4	SW2	MW3	L2 <small>Note 1</small>
Facility Office <small>Note 4</small>	N5	Discharge(s) from cap	MW10	
Additional perimeter wells as per Condition 3			MW4	
			MW11D	
			MW11S	
Venting Stacks in Final Cap				

Note 1: Additional leachate monitoring borehole as specified by Condition 3.

Note 2: Noise sensitive locations as indicated in Attachment C.8 *Noise* of the application.

Note 3: An additional bedrock groundwater monitoring borehole may be required. Refer to Condition 3.

Note 4: Until the gas alarm as proposed in Attachment D.5.k *Gas Alarm Systems* has been installed.

D.2 Landfill Gas

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

Parameter	Monitoring Frequency		Analysis Method <small>Note1</small> /Technique <small>Note2</small>
	Gas Boreholes/ Vents/Wells	Site Office <small>Note 3</small>	
Methane (CH ₄) % v/v	Quarterly	Weekly	Infrared analyser/flame ionisation detector
Carbon dioxide (CO ₂)%v/v	Quarterly	Weekly	Infrared analyser/ flame ionisation detector
Oxygen(O ₂) %v/v	Quarterly	Weekly	Electrochemical cell
Atmospheric Pressure	Quarterly	Weekly	Standard
Temperature	Quarterly	Weekly	Standard

Note1: All monitoring equipment used should be intrinsically safe.

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

Note 3: Until the gas alarm as proposed in Attachment D.5.k *Gas Alarm Systems* has been installed.

D.3 Noise

Table D.3.1 Noise Monitoring Frequency and Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
L(A)_{EQ} [30 minutes]	Annual	Standard ^{Note 1}
L(A)₁₀ [30 minutes]	Annual	Standard ^{Note 1}
L(A)₉₀ [30 minutes]	Annual	Standard ^{Note 1}
Frequency Analysis(1/3 Octave band analysis)	Annual	Standard ^{Note 1}

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

D.4 Surface Water, Groundwater and Leachate

Table D.4.1 Water and Leachate - Parameters /Monitoring Frequency

Parameter ^{Note 1}	SURFACE WATER Frequency	GROUNDWATER Frequency	LEACHATE Frequency
Visual Inspection/Odour ^{Note 2}	Quarterly	Quarterly	Quarterly
Groundwater Level	Not Applicable	Quarterly	Not Applicable
Leachate Level	Not Applicable	Not Applicable	Monthly
Ammoniacal Nitrogen	Six Monthly ^{Note 5}	Quarterly	Six Monthly
BOD5 ATU	Six Monthly ^{Note 5}	Not Applicable	Six Monthly
COD	Six Monthly	Not Applicable	Six Monthly
Chloride	Six Monthly	Quarterly	Six Monthly
Dissolved Oxygen	Six Monthly	Quarterly	Not Applicable
Electrical Conductivity	Six Monthly ^{Note 5}	Quarterly	Six Monthly
PH	Six Monthly ^{Note 5}	Quarterly	Six Monthly
Total Suspended Solids	Six Monthly ^{Note 5}	Not Applicable	Not Applicable
Temperature	Six Monthly ^{Note 5}	Monthly	Six Monthly
Boron	Not Applicable	Annually	Annually
Cadmium	Annually	Annually	Annually
Calcium	Annually	Annually	Annually
Chromium (Total)	Annually	Annually	Annually
Copper	Annually	Annually	Annually
Cyanide (Total)	Not Applicable	Annually	Annually
Fluoride	Not Applicable	Annually	Annually
Iron	Annually	Quarterly	Annually
Lead	Annually	Annually	Annually
List I/II organic substances ^{Note 3}	Not Applicable	Annually	Not Applicable
Magnesium	Annually	Annually	Annually
Manganese	Annually	Annually	Annually
Mercury	Annually	Annually	Annually
Potassium	Annually	Quarterly	Annually
Sulphate	Annually	Annually	Annually
Sodium	Annually	Quarterly	Annually
Total Alkalinity	Annually	Annually	Not Applicable
Total Phosphorus /	Annually ^{Note 5}	Annually	Annually
Total Oxidised Nitrogen	Annually	Quarterly	Six Monthly
Total Organic Carbon	Not Applicable	Quarterly	Not Applicable
Residue on evaporation	Not Applicable	Annually	Not Applicable
Zinc	Annually	Annually	Annually
Phenols	Not Applicable	Quarterly	Not Applicable
Faecal Coliforms ^{Note 4}	Not Applicable	Quarterly	Annually
Total Coliforms ^{Note 4}	Not Applicable	Quarterly	Annually

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: 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 (US Environmental Protection Agency method 525 or equivalent, and pesticides (US Environmental Protection Agency method 608 or equivalent).

Note 4: In the case where groundwater is extracted for drinking water, if there is evidence of bacterial contamination, the analysis at up gradient and downgradient monitoring points should include enumeration of total bacteria at 22°C and 37°C and faecal streptococci.

Note 5: These parameters shall be monitored at surface water discharges which have received the prior agreement of the Agency.

SCHEDULE E :Recording and Reporting to the Agency

Report	Reporting Frequency ^{Note1}	Report Submission Date
Annual Environment Report (AER)	Annually	Thirteen months from the date of grant of licence and one month after the end of each year thereafter.
Record of incidents	As they occur	Within five days of the incident.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Monitoring of landfill gas	Six Monthly	Ten days after end of the quarter being reported on.
Monitoring of Surface Water Quality	Six Monthly	Ten days after end of the period being reported on.
Monitoring of Groundwater Quality	Six Monthly	Ten days after end of the quarter being reported on.
Monitoring of Leachate	Six Monthly	Ten days after end of the period being reported on.
Noise Monitoring	Annually	One month after end of the year being reported on.
Topographical Surveys	As they occur	Within ten days of obtaining results.
Stability Assessments	As they occur	Within ten days of obtaining results.
Any other monitoring	As they occur	Within ten days of obtaining results.

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

SCHEDULE F :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.
Summary report on emissions.
Summary of results and interpretation of environmental monitoring.
Resource and energy consumption summary.
Report on restoration of the facility.
Estimated annual and cumulative quantities of landfill gas emitted from the facility.
Full title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation.
Reported incidents and Complaints summaries.
Review of Nuisance Controls.
Report on training of staff.
Any other items specified by the Agency.

Signed on behalf of the said Agency
on the 12th day of July 2001

Breda Sheehan Authorised Person