



Headquarters,
P.O. Box 3000,
Johnstown Castle Estate
County Wexford, Ireland

WASTE LICENCE
PROPOSED DECISION

Waste Licence

Register Number:

92-1

Applicant:

Cavan County Council

Location of Facility:

Belturbet Landfill, Rahaghan, Belturbet, 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 orderly closure, restoration and aftercare of the landfill at Belturbet Landfill, Rahaghan, Belturbet, Co. Cavan.

Cavan County Council will only be permitted to accept inert waste for the purposes of restoration of this facility. Activities on site will consist of the recovery of inert waste for the purposes of restoration and aftercare. The quantity of inert waste to be accepted as part of the restoration and aftercare plan is limited to 45,000 Tonnes. The final height of the facility after restoration is limited to 73m OD(Malin).

The Council must manage and operate the facility to ensure that the activities do not cause environmental pollution. The Council has to carry out regular environmental monitoring and submit all monitoring results, and 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 is allowed to 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 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 40(1) of the said Act to grant this Waste Licence to Cavan County Council to carry on the waste activities listed below at Belturbet Landfill, Rahaghan, Belturbet, 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.
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This activity is limited to the storage of wastes at the Civic Waste Facility prior to disposal off-site.

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):
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This activity is limited to the collection of organic wastes at the Civic Waste Facility.

Class 3.	Recycling or reclamation of metals and metal compounds:
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This activity is limited to the collection of waste metals at the Civic Waste Facility.

Class 4.	Recycling or reclamation of other inorganic materials:
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This activity is limited to the recovery of inert waste for restoration of the facility and the collection of inorganic materials at the Civic Waste Facility.

Class 11.	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule:
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This activity includes the use of compost for soil enhancement.

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:
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This activity is limited to the storage of all wastes collected at the Civic Waste Facility prior to being submitted for recovery

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 activity.

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

Class 1.	Deposit on, in or under land (including landfill): Reason: The proposed activity would not comply with 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 included this class to provide for the disposal of sewage sludges at the facility however additional information provided by the applicant stated that it is not intended to accept sludges at the facility.

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.

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.
Biodegradable waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
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 D.
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), plant matter such as grass cuttings, and other vegetation.
Hours of Waste Acceptance	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.

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.
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.
Mobile Plant	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.
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.
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.
Working Face	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 Figure B.2.1 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 for the purposes of site restoration and remediation shall be accepted at the facility. The total amount of inert wastes to be recovered at the facility shall not exceed 45,000 tonnes.
- 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 for restoration of the landfill between the hours of 9.00am to 5.00pm Monday to Friday inclusive and 9.00am to 1.00pm on Saturdays.
 - 1.5.1.2. Waste shall not be accepted at the landfill on Bank Holidays.
 - 1.5.2. Civic Waste Facility
 - 1.5.2.1. Waste shall only be accepted at the Civic Waste Facility between the hours of 9.00am to 5.00pm Monday to Friday inclusive and 10.00am to 4.00pm 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 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 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 three 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 Corrective Action Procedures

- 2.3.1 Within six months of the date of grant of this licence, the licensee shall establish and maintain Corrective Action Procedures which shall detail the corrective actions to be taken should any of the procedures detailed in the EMS not be followed.

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 granting 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; and
 - f) where environmental information relating to the facility can be obtained.
- 3.4 Facility Security
- 3.4.1 Within twelve months of the date of grant of this licence the licensee shall install security and stockproof fencing and gates around the facility. The base of the 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 to ensure the safe movement of vehicles within the facility.
- 3.5.2 The facility entrance area, the access road to the Civic Waste Facility and the Civic Waste Facility itself shall be hardstanding and constructed in accordance with British Standard 8110.
- 3.5.3 The licensee shall provide and maintain a working telephone at the facility
- 3.6 Tank and Drum Storage Areas
- 3.6.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.
- 3.6.2 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.
- 3.6.3 All drainage from bunded areas shall be diverted for collection and safe disposal.
- 3.6.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.6.5 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 nine months of the date of grant of this licence.
- 3.7 Landfill Gas Management

- 3.7.1 Within eighteen months of the date of grant of this licence, and in conjunction with the capping programme the licensee shall provide a landfill gas collection system and shall provide for the venting of collected landfill gas to the atmosphere.
- 3.7.2 The licensee shall install a minimum of three passive landfill gas vents. The vents shall be installed as part of the capping programme and shall be constructed in accordance with the Agency's "Landfill Site Design Manual".
- 3.7.3 Any 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.
- 3.8 Surface Water Management
- 3.8.1 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.
- 3.9 Groundwater Management
- 3.9.1 Effective groundwater 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 protection of the groundwater resources from pollution by the waste activities
- 3.10 Monitoring Infrastructure
- 3.10.1 Landfill Gas
- (i) Within six months from the date of grant of this licence, the licensee shall install monitoring points at the perimeter of the facility for monitoring the potential off-site migration of landfill gas.
- 3.10.2 Groundwater
- (i) Subject to the agreement of landowners and within six months from the date of grant of this licence, the licensee shall install monitoring points, one upgradient and one downgradient beyond the facility boundary to allow for the sampling and analysis of groundwater.
- 3.10.3 Replacement of Infrastructure
- (i) 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 73mOD Malin.
- 4.2. Final Capping
- 4.2.1. 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.
- 4.3. 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
- 4.4. 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.
- 4.5. The restoration of the landfill facility shall be completed within 24 months of the date of grant of this licence.

REASON: To provide for the restoration of the facility

CONDITION 5 FACILITY OPERATIONS

- 5.1 Waste Acceptance and Characterisation Procedure
- 5.1.1 The licensee shall provide detailed written procedures for the acceptance and handling of all wastes accepted as part of the restoration and aftercare plan.
- 5.2 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.
- 5.3 Landscaping
- 5.3.1 The existing hedgerow network which forms the boundary of the facility shall be retained by the licensee.
- 5.4 Operational Controls
- 5.4.1 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 gas collection systems or only with the prior agreement from the Agency.

- 5.4.2 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.
- 5.4.3 Gates shall be locked shut when the facility is unsupervised.
- 5.4.4 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 5.4.5 Fuels shall only be stored at appropriately banded locations on the facility.
- 5.4.6 All tanks and drums shall be labelled to clearly indicate their contents.
- 5.4.7 No smoking shall be allowed on the facility (other than at an area to be agreed with the Agency)
- 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) 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.
 - 5.6.4 At the end of the working day the floor of the Civic Waste Facility, and all skips/containers containing wastes shall be emptied or suitably covered.
- 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 All containment structures on the facility shall be inspected and certified fit for purpose every three years by an independent and appropriately qualified chartered engineer.

- 5.7.3 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. The licensee shall provide a maximum of two points for the discharge of surface water from the facility.
- (i) One discharge point shall be for all surface waters collected from the capped landfill area and the second discharge point shall be for all surface waters collected from hardstand areas at the entrance area and Civic Waste Facility.
- 6.4.2. No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.

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 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
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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. Groundwater Monitoring

8.6.1. 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.

8.7. Leachate Monitoring

8.7.1. Leachate levels within the filled waste shall be monitored at one location (MW5), as detailed in information received by the Agency on March 8th 2001.

8.8. Surface Water Monitoring

8.8.1. The licensee shall monitor surface water in accordance with Schedule D.5.1 at two monitoring points provided as per Condition 6.4.

8.9. Meteorological Monitoring

8.9.1. The licensee shall make arrangements for representative meteorological data to be collated for the facility to fulfil the requirements of Schedule D.6: Meteorological Monitoring.

8.10. Nuisance Monitoring

8.10.1. 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. 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. 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;

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;
- a) the current waste licence relating to the facility;
 - b) the previous year's AER for the facility;
 - c) all written procedures produced by the licensee which 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 carrier registration details);
 - c) the vehicle registration number;
 - d) the name of the producer(s)/collector(s) of the waste as appropriate;
 - e) a description of the waste including the associated EWC codes;
 - f) the quantity of the waste, recorded in tonnes
 - g) the name of the person checking the load; and,
 - h) 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 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 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.
- 10.5 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.

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 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;
- 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/sewer water, notify the Northern 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.

11.4 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).

11.5 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 £ 4,524 (€5,745) 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.

12.2 Financial Provision for Closure, Restoration and Aftercare

12.2.1 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.

12.2.2 Any fund established shall be maintained in an amount always sufficient to underwrite the current Restoration and Aftercare Plan.

12.2.3 The licensee shall revise the cost of restoration and aftercare annually and any details of the necessary adjustments to the fund or guarantee must, within two weeks of the revision, be forwarded to the Agency for its agreement. Any adjustment agreed by the Agency shall be effected within four weeks of said written agreement.

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.

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 Total Quantity of waste to be accepted for the restoration and remediation of the landfill

WASTE TYPE	MAXIMUM
Inert Waste	45,000
TOTAL	45,000

SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Final capping and restoration (including landscaping).
Construction and installation of the Civic Waste Facility
Installation of Landfill Gas 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 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

C.3 Dust Deposition Limits: (Measured at the monitoring points indicated in *Table D.1.1*).

Level (mg/m ² /day) ^{Note 1}

Note 1: 30 day composite sample with the results expressed as mg/m²/day.

SCHEDULE D : Monitoring

Monitoring to be carried out as specified below.

D.1 Monitoring Locations

Monitoring locations shall be those as set out in Table D.1.1.

Table D.1.1 Monitoring Locations

LANDFILL GAS ^{Note 1}	DUST ^{Note 2}	NOISE ^{Note 2}	SURFACE WATER ^{Note 3}	GROUND WATER ^{Note 4}	LEACHATE ^{Note 2}
STATIONS	STATION	STATIONS	STATION	STATIONS	STATION
	D.1	N1	SW1	MW1	MW5
		N2	SW2	MW2	
			SW3	MW4	
				MW7	
				MW9	
				MW10	

Note 1: Gas monitoring locations to be agreed as per Condition 3.10.1

Note 2: As per Figure J.1 of the waste licence application

Note 3: SW1 as per Figure C.6.4 of the waste licence application and additional surface water monitoring points to be agreed as per Condition 6.4

Note 4: MW9 and MW10 to be agreed as per Condition 3.10.2

D.2 Landfill Gas

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

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

Note1: 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 ² /day)	Monitoring Frequency	Analysis Method/Technique
Dust	Once per Year ^{Note 2}	Standard Method ^{Note 1}

Note 1: Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). A modification (not included in the standard) which 2 methoxy ethanol may be employed to eliminate interference due to algae growth in the gauge.

Note 2: To be completed between May and September on an annual basis until restoration works are complete.

D.4 Noise

Table D.4.1 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.5 Surface Water, Groundwater and Leachate

Table D.5.1 Water and Leachate - Parameters /Frequency

Parameter ^{Note 1}	SURFACE WATER Monitoring Frequency	GROUNDWATER Monitoring Frequency	LEACHATE Monitoring Frequency
Visual Inspection/Odour ^{Note 2}	Weekly	Quarterly	Quarterly
Groundwater Level	Not Applicable	Monthly	Not Applicable
Leachate Level	Not Applicable	Not Applicable	Quarterly
Ammoniacal Nitrogen	Quarterly	Quarterly	Quarterly
BOD	Quarterly	Not Applicable	Quarterly
COD	Quarterly	Not Applicable	Quarterly
Chloride	Quarterly	Quarterly	Quarterly
Dissolved Oxygen	Quarterly	Quarterly	Not Applicable
Electrical Conductivity	Quarterly	Quarterly	Quarterly
pH	Quarterly	Quarterly	Quarterly
Total Suspended Solids	Quarterly	Not Applicable	Not Applicable
Temperature	Quarterly	Monthly	Quarterly
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}	Note 5	Annually	Note 5
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 / orthophosphate	Annually	Annually	Annually
Total Oxidised Nitrogen	Annually	Quarterly	Quarterly
Total Organic Carbon	Not Applicable	Quarterly	Not Applicable
Residue on evaporation	Not Applicable	Annually	Not Applicable
Zinc	Annually	Annually	Annually
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: Once off for List I/II organic substances.

D.6 Meteorological Monitoring

Table D.6.1 Meteorological Monitoring:

Data to be obtained from Clones Meteorological Station unless otherwise 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
Atmospheric Pressure	Daily	Standard

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.
Bund, tank and container integrity assessment	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.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Monitoring of landfill gas	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Surface Water Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Groundwater Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Leachate	Quarterly	Ten days after end of the quarter being reported on.
Meteorological Monitoring	Annually	One month after end of the year being reported on.
Dust Monitoring	Annually	One month after end of the year being reported on.
Noise Monitoring	Annually	One month after end of the year being reported on.

Note 1: Unless altered at the request of the Agency

SCHEDULE F :Content of the Annual Environmental Report

Annual Environmental Report Content ^{Note 1}

Reporting Period.

Waste activities carried out at the facility.

Quantity and Composition of waste 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.

Volume of leachate produced.

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..

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

Tank and bund testing and inspection report.

Reported incidents and Complaints summaries.

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.

Note 1: Content to be revised subject to the agreement of the Agency following the cessation of waste acceptance at the facility.

Signed on behalf of the said Agency
on the 28th day of June 2001

Ana Bolger **Authorised Person**