

LICENCE REG. NO W0021-01 HAS BEEN REVISED.
Please note that licence Reg. No. W0021-01 was reviewed
and replaced by the revised licence Reg. No W0021-02

AMENDMENT UNDER S76(4) OF THE WASTE MANAGEMENT ACTS 1996 TO 2005

This licence was amended on 16 January 2006 under Section 76(4) of the Waste Management Acts, 1996 to 2005. The details of the amendment must be read in conjunction with this licence. The amendment document is entitled 21-1-1S76(4)AmendmentA



Headquarters,
P.O. Box 3000,
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WASTE LICENCE

Waste Licence	21-1
Register Number:	
Licensee:	Mayo County Council
Location of Facility:	Derrinnumera Landfill
	Derrinnumera, Newport, Co. Mayo

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Reasons for the Decision

The Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence any emissions from the activity will comply with and not contravene any of 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 and objections received and the reports of its inspectors.

Part I: Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Environmental Protection Agency (the Agency), under Section 40(1) of the said Act hereby grants this Waste Licence to Mayo County Council, Aras na Chontae, Castlebar, Co. Mayo to carry on the waste activities listed below at Derrinumera Landfill, Derrinumera, Newport, County Mayo, subject to eleven No. 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 1:* Deposit on, in or under land (including landfill).
- Class 5:* Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.
- Class 6:* Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule.
- Class 7:* Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule.
- 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.

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).
- Class 3:* Recycling or reclamation of metals and metal compounds.
- Class 4:* Recycling or reclamation of other inorganic materials.
- 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.

INTERPRETATION

Act	The Waste Management Act, 1996 (No. 10 of 1996).
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Adequate lighting	20 lux measured at ground level.
Agreement	Agreement in writing.
Application	The application by the licensee for this waste licence, including any other material submitted to the Agency in writing by the licensee between the date of the application and the date of grant of this licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
BATNEEC	Best Available Technology Not Entailing Excessive Cost as defined in section 5 (2) of the Act.
Biodegradable waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard.
Civic waste facility	A convenient centre used by householders and commercial operators to drop off recyclables and other waste.
Commercial waste	As defined in Section 5 (1) of the Act.
Condition	A condition of this licence. In any case where this licence refers to a numbered condition, the reference shall be taken to mean the condition and any sub-condition therein which the context of the reference requires that reference is made to
Containment boom	A boom which can contain spillages and prevent these 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 subject to a proposal made by the licensee for the Agency's agreement.
Daytime	0800 hrs to 2200 hrs.
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.

Emission	As defined in Section 5 (1) of the Act.
Emission Limit Value	Those limits, including concentration limits and deposition levels established in Schedule G.
Environmental Pollution	As defined in Section 5 (1) of the Act.
European Waste Catalogue (EWC)	The EWC is 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.
Facility	That area or areas defined under Condition 1.2
Green waste	Waste wood, plant matter and other vegetation.
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.
Hazardous Waste	As defined in Section 4 (2) of the Act.
Household Waste	As defined in Section 5 (1) of the Act.
Industrial waste	As defined in Section 5 (1) of the Act.
Incident	Any reference to an incident in this licence means an incident as defined in Condition 3.1.
Landfill	As defined in Section 5 (1) of the Act.
Landfill Gas	Gases generated from the landfilled waste.
Leachate	Any liquid percolating through the deposited waste and emitted from or contained within a landfill as defined in Section 5 (1) of the Act.
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	Mayo County Council, Aras na Chontae, Castlebar, Co. Mayo.
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 20% dry matter.
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	At least 12 times per year, at approximately monthly intervals.
Municipal Waste	Municipal waste as defined in Section 5 (1) of the Act.
Night-time	2200 hrs to 0800 hrs.
Non-hazardous waste	Non-Hazardous Waste is any waste which is not a hazardous waste as defined in the Act.
Quarterly	A period of three calendar months, the first period of which commences on the date of grant of this licence.
Recovery	As defined in Section 4 (4) of the Act.
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.
Specified Emissions	Those emissions listed in Schedule G of this licence.
Specified Engineering Works	Those engineering works listed in Schedule E of this licence.
Submit	Unless the context of this licence indicates otherwise, submit to the Agency in writing for agreement
Trigger Level	A parameter value which when achieved or exceeded requires certain actions to be taken.
Waste	As defined in Section 4(1) of the Act.
Waste disposal activity	Includes the activities referred to in Section 4 of the Act and listed in the Third Schedule thereto.
Waste recovery activity	Includes the activities referred to in Section 4 of the Act and listed in the Fourth Schedule thereto.
White Goods	Refrigerators, cookers, ovens and other similar appliances.
Working Day	08.00 to 18.00 Monday to Friday inclusive and 08.00 to 13.00 on Saturdays.
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 II CONDITIONS

CONDITION 1 SCOPE

- 1.1. The waste activities authorised by this licence are listed and described in *Schedule A: Waste Activities*. Waste activities at the facility shall be restricted to those listed in Schedule A and any restrictions set down therein.
- 1.2. Within one month of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, a Site Plan, showing the facility boundary outlined in red, incorporating the area outlined in red on Drawing No. 002034/11/601, Revision B "Site Layout Plan" (dated Sept 98) and areas outside this containing infrastructure associated with the waste activities as shown in Drawing No. 002034/11/661 "General Arrangement of Site Area Showing Work Done at May 1999". Following agreement, waste activities shall be restricted to the area of land thus outlined in red and any reference in this licence to "facility" shall mean the area thus outlined in red.
- 1.3. Every plan, programme or proposal submitted to the Agency for 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. Every 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.
- 1.4. 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.
- 1.5. Where the Agency considers that a non-compliance with the Conditions of this licence has occurred, it may serve a notice on the licensee specifying:
 - a) 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;
 - b) 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,
 - c) 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 confirmation is received from the Agency that the notice is withdrawn.

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

CONDITION 2 MANAGEMENT OF THE ACTIVITY

2.1 Environmental Management System

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

2.1.2 The EMS shall include as a minimum those elements specified in the Conditions 2.2 to 2.8 below:

2.2 Schedule of Environmental Objectives and Targets

2.2.1 The licensee shall, within six months from the date of grant of this licence, submit to the Agency for its agreement a Schedule of Objectives and Targets. The objectives should be specific and the targets measurable.

2.2.2 The Schedule shall address a five year period as a minimum and shall be reviewed and submitted annually to the Agency for its agreement.

2.3 Environmental Management Programme

2.3.1 The licensee shall, within six months from the date of grant of this licence, submit to the Agency for its agreement an Environmental Management Programme (EMP). The EMP shall include a time-scale for achieving the Schedule of Objectives and Targets and shall comply with any other guidance issued by the Agency.

2.3.2 The EMP shall include, as a minimum, the information specified *in Schedule B: Content of the Environmental Management Programme*. The EMP shall be reviewed and submitted to the Agency for its agreement annually.

2.4 Corrective Action

2.4.1 The licensee shall, within six months from the date of grant of this licence, establish and maintain written Corrective Action Procedures to ensure that corrective action is taken should specified requirements to this licence not be fulfilled.

2.5 Awareness and Training

2.5.1 The licensee shall, within six months from the date of grant of this licence, establish and maintain Awareness and Training Procedures for identifying training needs and for providing appropriate training, for personnel whose work is related to the licensed facility. Written records of training shall be maintained.

2.6 Management Structure

2.6.1 Within three months from the date of grant of this licence, the licensee shall submit written details of the management structure of the facility for the agreement of the Agency. Any proposed changes in the management

structure shall be submitted in writing to the Agency for its agreement. 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;
- b) a named contact person for communications with the Sanitary Authority
- c) details of the responsibilities for each individual named under a) above;
- d) details of the relevant experience, competence and qualifications held by each of the persons nominated under a) above; and
- e) contingency arrangements for the absences of the named persons from the facility.

2.7 Communications

2.7.1 Within six months from the date of grant of this licence, the licensee shall submit for agreement to the Agency a Communications Programme to ensure that members of the public can obtain information concerning the environmental performance of the facility at all reasonable times.

2.8 Annual Environmental Report

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

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

2.9 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 suitably qualified and experienced deputy, shall be present at all times during the operation of the facility.

2.10 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and/or experience, as required and shall be aware of the requirements of this licence.

Reason: *To make provision for 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 NOTIFICATION AND RECORD KEEPING

3.1 The licensee shall make written records of the following incidents:

- a) any emission which results in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any relevant enactment;
- b) any emission which does not comply with the requirements of this licence;

- c) any trigger level specified in this licence or in the EMS which is attained or exceeded;
 - d) any discharge of leachate to the Glaishtwy River;
 - e) where the biological assessment of the Glaishtwy River immediately downstream of the facility indicates that the Q-rating is lower than 2;
 - f) any malfunction of any environmental control system;
 - g) any indication that contamination has, or may have, taken place;
 - h) the cessation of waste activities at the facility for a period in excess of 28 days, and their recommencement;
 - i) any occurrence with the potential for environmental pollution; and,
 - j) any emergency.
- 3.2 The written record shall include all aspects described in Condition 10.7.
- 3.3 Unless otherwise instructed in writing by the Agency, the licensee shall:
- a) notify the Agency by telephone, and by facsimile if available, as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident; and
 - b) submit the written record required by this condition to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident.
- 3.4 Should any further actions be taken after the date of written notification, 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.
- 3.5 Unless otherwise agreed by the Agency, all documentation submitted to the Agency shall:
- (a) be sent to the Agency's headquarters;
 - (b) comprise one original and three copies;
 - (c) be formatted in accordance with any written instruction or guidance issued by the Agency;
 - (d) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;
 - (e) be submitted in accordance to the relevant reporting frequencies specified by this licence;
 - (f) be certified as accurate and representative by the licensee; and
 - (g) in the case of results of any environmental monitoring, be accompanied by a written interpretation setting out their significance.
- 3.6 In the event of any incident which relates to discharges to surface water, the licensee shall notify the North Western Regional Fisheries Board, as soon as practicable by

telephone and in writing (by facsimile if available) and in any case not later than 10:00am on the following working day after such an incident.

- 3.7 Unless otherwise agreed in writing with the Agency, all documentation required to be maintained under this licence, shall be retained by the licensee.
- 3.8 Unless otherwise agreed in advance in writing with the Agency, the licensee must give at least fourteen days notice to the Agency of the following events:
- a) the cessation of waste disposal activities at the facility for a period in excess of twenty-eight days;
 - b) the re-commencement of waste disposal activities at the facility following a period of cessation referred to at a) above.
- 3.9 The licensee shall provide additional copies of any documentation referred to in this licence to the Agency upon written request, within the time specified in writing by the Agency.
- 3.10 Unless otherwise agreed in advance in writing with the Agency, copies of all documentation referred to in this licence shall be maintained by the licensee at the Headquarters of Mayo County Council, Aras na Chontae, Castlebar, and, when constructed in the facility office referred to as "Control Building" in Drawing No. 002034/11/608, "Layout Plan of Derrinumera Landfill Site Showing Waste Reception Area" and shall be made available to the Agency at all reasonable times.
- 3.11 The licensee shall keep the following documents at the location referred to in Condition 3.10:
- a) the current waste licence relating to the facility;
 - b) any previous waste licence in respect of the facility;
 - c) the current EMS for the facility;
 - d) the previous year's AER for the facility;
 - e) all written procedures produced by the licensee which relate to the licensed activities.
- 3.12 The licensee shall maintain a written record for each load of waste arriving at the facility. The licensee shall record the following:
- a) the name of the carrier;
 - b) the vehicle registration number;
 - c) the name of the producer(s)/collector(s) of the waste as appropriate;
 - d) a description of the waste;
 - e) the quantity of the waste, recorded in tonnes;
 - f) the name of the person checking the load; and,
 - g) where loads or wastes are removed or rejected, details of the date of occurrence and the types of waste.
- 3.13 A written record shall be kept of each consignment of leachate removed from the facility. The record shall include the following:
- a) the name of the carrier;
 - b) the date and time of removal of leachate from the facility;
 - c) the volume of leachate, in cubic metres, removed from the facility on each occasion;

- d) the name and address of the Waste Water Treatment Plant to which the leachate was transported;
 - e) any incidents or spillages of leachate during its removal or transportation.
- 3.14 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.

Reason : *To provide for the notification of incidents, to update information on the activity and to provide for the keeping of records.*

CONDITION 4 SITE INFRASTRUCTURE

- 4.1 The licensee shall establish all infrastructure referred to in this licence in accordance to the conditions therein or as instructed by the Agency.
- 4.2 Site Notice Board
- 4.2.1 Within three months of the date of grant of this licence, a Site Notice Board shall be provided and maintained by the licensee on the facility, so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the identification board shall be 1200 mm by 750 mm.
- 4.2.2 The board shall clearly show:
- a) the name and telephone number of the facility;
 - b) the normal hours of opening;
 - c) the name, address and telephone number of the licence holder;
 - d) an emergency out of hours contact telephone number;
 - e) the name, address and telephone number of the operator of the facility;
 - f) the licence reference number;
 - g) where and when environmental monitoring information relating to the facility can be obtained.
- 4.3 Site Security
- 4.3.1 Within three months from the date of grant of this licence, the licensee shall submit, to the Agency for its agreement a drawing showing the location of the facility gates, palisade fencing and Type 2 fencing. Following agreement with the Agency, the licensee shall provide and maintain main access gates and palisade fencing along the front of the facility of a type as detailed in Drawing No. 002034/11/649, "Details of Main Access Gates & Palisade Fencing". The licensee shall provide and maintain security fencing around the remainder of the perimeter of the site, of a type, as detailed in Drawing No. 002034/11/650, "Details of Proposed Site Fencing Type 2 - Security Post & Wire Fence"

- 4.3.2 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 or as otherwise agreed in writing with the Agency.
- 4.3.3 Gates shall be locked shut when the facility is unsupervised.
- 4.4 Site Roads
- 4.4.1 Within three months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, details on the design and maintenance of the access road (LT 4212) to the site.
- 4.4.2 The licensee shall provide and maintain haul roads to the specification described in Attachment D.1.b of the application and detailed in Drawing No. 002034/11/651.
- 4.4.3 Unless otherwise agreed in advance with the Agency, the licensee shall provide traffic control barriers at the locations shown in Drawing No. 002034/11/608 "Layout Plan of Derrinnumera Landfill Site Showing Waste Reception Area".
- 4.5 Hardstanding areas
- 4.5.1 Hardstanding areas shall be provided and maintained in accordance with the detail of Attachment D.1.c of the application.
- 4.5.2 Unless otherwise agreed by the Agency, the hardstanding areas shown in Drawing No. 002034/11/626 Revision A "Layout Plan Showing Control House, Weighbridge & Civic Amenity Area" shall drain to the sump detailed in Drawing No. 002034/11/632 "Layout Plan Showing Fouled Surface Area Drainage System" and shall subsequently pass to the leachate treatment system for storage/treatment and/or for off-site disposal.
- 4.6 Within twelve months of the date of grant of this licence, the licensee shall provide and maintain an office on the facility, at the location referred to as "Control Building" in Drawing No. 002034/11/608, "Layout Plan of Derrinnumera Landfill Site Showing Waste Reception Area" and to the detail as shown in Drawing No. 002034/11/627, "Control Building Plan, Elevation & Section". The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 4.7 The licensee shall provide and maintain a working telephone and facsimile machine in the office specified in Condition 4.6 above.
- 4.8 The licensee shall within three months of the date of grant of licence submit to the Agency for its agreement details of a potable water supply to the site and details of the proposed washwater borehole shown in Drawing No. 002034/11/608, "Layout Plan of Derrinnumera Landfill Site Showing Waste Reception Area".
- 4.9 Unless otherwise agreed in advance with the Agency, the licensee shall provide a weighbridge at the location shown in Drawing No. 002034/11/626 Revision A "Layout Plan Showing Control House, Weighbridge & Civic Amenity Area" to the specification shown on Drawing No. 002034/11/629 "Weighbridge Layout Plan and Section" and shall maintain it in such condition and calibrate it at such times as are necessary as to accurately measure the weight of all vehicles using it.
- 4.10 Wheelwash

- 4.10.1 Unless otherwise agreed in advance with the Agency, the licensee shall provide a Wheelwash at the location and to the detail shown in Drawing No. 002034/11/631 "Plan and Section of Proposed Wheelwash".
- 4.10.2 The licensee shall inspect the wheelwash facilities on a daily basis and drain or empty them as required. Water drained from the wheelwash facilities shall be discharged to the sump detailed in Drawing No. 002034/11/632 "Layout Plan Showing Fouled Surface Area Drainage System" unless otherwise agreed in advance with the Agency. Accumulated silt shall be removed and disposed of at the working face as required.
- 4.11 Unless otherwise agreed by the Agency, the licensee shall:
- a) maintain a septic tank at the location shown in Drawing No. 002034/11/661 "General Arrangement of Site Area Showing Work Done at May 1999", and
 - b) within three months of the date of grant of licence submit to the Agency for its agreement a proposal to demonstrate the septic tank system functions in accordance with SR6.
- 4.12 Fuel Storage, Storage Areas for Household Hazardous Waste and Leachate Transport
- 4.12.1 Unless agreed otherwise in advance with the Agency or unless contained in mobile plant at the facility, the licensee shall store all fuels at the location shown in Drawing No. 002034/11/610 "General Arrangement of Cell No.1" and shall be to the detail provided in Drawing No. 002034/11/645 but shall incorporate any amendments to meet the requirements of the following sub conditions.
- 4.12.2 All tank and drum storage areas shall be rendered impervious to the materials stored therein. In addition, 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.
- 4.12.3 All drainage from bunded areas shall be diverted for collection and safe disposal.
- 4.12.4 All inlets, outlets, vent pipes, valves and gauges shall be within the bunded area.
- 4.12.5 The integrity and water tightness of any road vehicle used to transport leachate and all the bunds, tanks and containers and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the licensee and shall be reported to the Agency within three months of construction and prior to use. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. The licensee shall also submit to the Agency for its agreement in each case a written report on the storage of fuels on site. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 4.12.6 All tanks and containers shall be labelled to clearly indicate their contents.
- 4.13 The licensee shall within six months of the date of grant of licence and prior to its construction submit to the Agency for its agreement details of the "Plant Sheds, Garages and Equipment Compound" referred to in Section D.1.m of the application.
- 4.14 Civic Waste Facility

- 4.14.1 Unless otherwise agreed with the Agency, a Civic Waste Facility shall be provided at the location shown in Drawing No. 002034/11/626 Revision A "Layout Plan Showing Control House, Weighbridge & Civic Amenity Area" and constructed in accordance with the details in Drawing No. 002034/11/628 "Plan And Sections of Proposed Civic Amenity Site".
- 4.14.2 The licensee shall provide and maintain receptacles at the civic waste facility at locations shown in Drawing No. 002034/11/628 "Plan And Sections of Proposed Civic Amenity Site" unless otherwise agreed with the Agency. All receptacles shall be clearly labelled to indicate their contents.
- 4.14.3 Storage areas for household hazardous waste shall be constructed, tested and reported on in accordance with Condition 4.12.
- 4.15 Waste Inspection / Quarantine Areas
- 4.15.1 Unless otherwise agreed with the Agency, Waste Inspection and Quarantine Areas shall be provided at the location referred to as Sorting Shed in Drawing No. 002034/11/626 Revision A "Layout Plan Showing Control House, Weighbridge & Civic Amenity Area" and constructed in accordance with the details in Drawing No. 002034/11/630 "Plan, Elevation and Section of Proposed Sorting Shed" of the application. The licensee shall ensure that this area shall be constructed and maintained in a manner suitable and be of a size appropriate for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be suitably and clearly segregated from each other.
- 4.16 Within six months from the date of grant of this licence, the licensee shall establish a meteorological station to meet the monitoring requirements set out in Schedule F.5 at a location to be agreed in advance with the Agency.
- 4.17 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 4.18 Specified Engineering Works
- 4.18.1 The licensee shall submit a written report on any proposed specified engineering works, as defined in *Schedule E: Specified Engineering Works*, to the Agency for its agreement at least two months prior to any such works being carried out. No such works shall be carried out without the prior written agreement of the Agency.
- 4.18.2 All specified engineering works shall be supervised by a competent person(s) agreed in writing in advance by the Agency and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 4.18.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation report. The validation report shall be made available to the Agency on request and 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) where relevant a drawing and sections showing the location of all samples and tests carried out;
 - e) daily records sheets/diary;

- f) name(s) of contractor(s)/individual(s) responsible for undertaking the 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; and
- i) any other information requested in writing by the Agency.

4.19 Groundwater Control

- 4.19.1 Within twelve months of the date of grant of this licence, the licensee shall, unless otherwise agreed with the Agency, construct and maintain a cut-off wall and trench, for the collection and diversion of surface water and groundwater, around the periphery of the landfill as outlined in Drawing No. 002034/11/612 Revision C "General Arrangement of Site Area" and in accordance with the detail in Drawing No. 002034/11/623 Revision A "Layout Plan & Construction Details of Proposed Cut-off Wall" but incorporating the following amendment: the cut-off wall shall be keyed into competent bedrock to a depth to be agreed, within three months of the date of grant of this licence, with the Agency.
- 4.19.2 Within three months of the date of grant of this licence and prior to commencement of its construction, the licensee shall submit to the Agency for its agreement, details of materials to be used in the construction of the cut-off wall.
- 4.19.3 Intercepted surface water and groundwater shall be diverted to the settling pond at the location as shown on Drawing No. 002034/11/612 Revision C "General Arrangement of Site Area" where it may be subsequently discharged to the Glaishty River subject to the requirements of Condition 7.6.
- 4.19.4 Within six months of the date of grant of this licence and prior to commencement of its construction, the licensee shall submit to the Agency for its agreement, details of the settling pond referred to in the further information received by the Agency on the 1st June 1999.
- 4.19.5 The licensee shall within three months from the date of grant of this licence submit to the Agency for agreement a proposal for the design and location of:
 - a) at least one permanent groundwater monitoring borehole between the landfill and the Glaishty River.
 - b) at least one permanent groundwater monitoring borehole at the southern boundary of the facility.

4.20 Borrow Area

- 4.20.1 Within three months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement, details on the extraction, grading, storage and use of material from the borrow area as shown in Drawing No. 002034/11/657, "Site Layout Plan and Longitudinal Sections A-A, & B-B, Through Proposed Gravel Borrow Area", received by the Agency as further information on the 4th February 1999.

4.21 Landfill Lining

- 4.21.1 Unless otherwise agreed with the Agency, the licensee shall, in accordance with Attachment D.3 of the application, place a lining system over the existing waste body for proposed cells No.1 and 2. The licensee shall within six months from the date of grant of this licence and prior to liner construction, present proposals for a lining system to the Agency for its agreement. The licensee in proposing a

lining system shall take account of the stability and settlement characteristics of the existing waste body

4.22 Landfill Gas Management:

4.22.1 Within six months from the date of grant of this licence, the licensee shall submit written proposals for a landfill gas control system, to the Agency for its agreement. The proposals shall include for an active landfill gas control system, incorporating utilisation and flaring.

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

4.23 Leachate Management:

4.23.1 Within three months of the date of grant of this licence, the licensee shall submit a report to the Agency for its agreement, of measures and procedures to remove leachate from the facility for treatment. The report shall include details of:

- a) leachate removal from the ponds at the northern and eastern ends of the landfill;
- b) removal of leachate collected in the cut-off trench and that collected in the new proposed cells;
- c) the maximum and minimum quantities of leachate to be removed from site daily; and
- d) the number of trucks required for daily leachate removal.

4.23.2 Leachate collected in the cut-off trench (required under Condition 4.19) shall be drained to the collection sump as shown on Drawing No. 002034/11/612 Revision C "General Arrangement of Site Area", for subsequent removal off-site by a method agreed under Condition 4.23.1. The details of the collection sump shall be submitted to the Agency for its agreement within three months of the date of grant of this licence and prior to its construction.

4.23.3 Leachate generated in Cells 1 to 2 inclusive shall be collected, as shown on Drawing No. 002034/11/613, unless otherwise agreed in advance with the Agency.

4.23.4 Within three months of the date of grant of this licence, the licensee shall submit details to the Agency for its agreement of methods to reduce the leachate levels within the existing waste body. Leachate levels within the proposed lined fill area over the existing waste body shall not exceed a level of 1.0 metre over the proposed liner.

4.23.5 Within three months of the date of grant of this licence, the licensee shall submit, to the Agency for its agreement a modified proposal for the treatment and/or storage of leachate prior to off-site disposal taking account of the prohibition on discharge to the Glaishty River in Condition 7.7.

4.23.6 Unless otherwise agreed by the Agency, the licensee shall not recirculate leachate over or into the waste body.

4.24 Capping:

4.24.1 Unless otherwise agreed or instructed by the Agency, the final capping of the landfill shall be in accordance with the detail shown in Drawing No. 030010/11/624, "Landfill Capping Details" but shall incorporate the following amendments: the combined thickness of the subsoil and topsoil shall be at

minimum 1m; the flexible membrane liner shall be a 2mm linear low density polyethylene (LLDPE) membrane.

- 4.24.2 The licensee shall submit to the Agency for its agreement, at least three months prior to commencement of capping works, details of surface water control relating to run-off water arising from cap and restoration areas.
- 4.25 No works shall be undertaken within 50m of the possible burial mound identified as Site D in attachment C3 of the application, unless agreed with the Agency subsequent to pre-testing by a qualified archaeologist, under licence from the Heritage Service in the Department of Arts, Heritage, Gaeltacht and the Islands.
- 4.26 Construction Schedule/Sequence:
- 4.26.1 Within three months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement a construction schedule and sequence incorporating the requirements of this licence.
- 4.27 All buildings constructed on the facility shall have regard to the guidance given in the Department of Environments 1994 publication "Protection of New Buildings and Occupants from Landfill Gas" and any subsequent revisions.

Reason: *To provide for the protection of the environment.*

CONDITION 5 WASTE ACCEPTANCE AND HANDLING

- 5.1 No hazardous waste shall be disposed of in the landfill. Unless otherwise agreed by the Agency and with the exception of the wastes generated on-site and specified below, no liquid or sludge waste shall be accepted for disposal at the landfill from three months after the date of grant of this licence. The wastes generated by on-site activities specified for the purposes of this condition are sludge and silt.
- 5.2 Subject to Condition 5.1 only those waste types listed in Table E.1.3 of the application shall be disposed of in the landfill unless prior agreement of the Agency has been obtained.
- 5.3 Unless otherwise agreed by the Agency, only waste types specified in Drawing No. 002034/11/628 "Plan and Sections of Proposed Civic Amenity Site" shall be accepted at the civic waste facility. Household hazardous waste shall only be accepted at the facility once the requirements of Condition 4.14.3 have been satisfied.
- 5.4 Within six months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement written procedures for the testing, characterisation and acceptance of waste. This shall include procedures for the acceptance of waste at the civic waste facility.
- 5.5 All wastes shall be checked at the working face to ensure that it complies with the requirements of this licence. All wastes deemed to be in contravention of this licence and/or unsuitable for disposal at this facility shall be removed for disposal at an appropriate alternative facility.
- 5.6 The quantity of wastes to be accepted for disposal to landfill at the facility shall not exceed 40,000 tonnes per annum, unless otherwise agreed in advance with the Agency.
- 5.7 Wastes shall not be deposited in any cell or part of the landfill without the prior agreement of the Agency.
- 5.8 Scavenging shall not be permitted at the facility.
- 5.9 Unless otherwise agreed by the Agency, waste shall only be accepted:
- a) at the landfill between the hours of 08:00 and 18.00 Monday to Friday inclusive and from 08:00 to 13:00 on Saturdays; and
 - b) at the civic waste facility referred to in Condition 5.3 above between the hours of 08:00 and 18.00 Monday to Friday inclusive and from 08:00 to 17:00 on Saturdays.
- 5.10 Traffic control at the facility shall be in accordance with the details provided in Attachment D.1.j "Traffic Control" of the application unless otherwise agreed with the Agency.
- 5.11 Unless the prior agreement of the Agency is given, the following shall apply at the landfill:
- a) only one working face shall exist at the landfill at any one time for the deposit of waste other than cover or restoration materials;

- b) the working face of the landfill shall be no more than 2.5 metres in height after compaction, no more than 25 metres wide and have a slope no greater than 1 in 3; and,
 - c) all waste deposited at the working face shall be compacted as soon as is practicable and at any rate prior to the end of the working day.
- 5.12 Within six months of the date of grant of this licence, cover material shall be placed across the whole landfill so that no waste other than cover material or material suitable for specified engineering works is exposed. In the case of waste being deposited at the working face, such waste shall, by the end of each day, be fully covered with cover material, suitable to minimise any nuisances occurring, so that no other waste is exposed. 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.
- 5.13 A steel wheeled compactor or other such vehicle as agreed with the Agency shall be used for compacting all waste other than that used for restoration or construction purposes.
- 5.14 Wastes once deposited and covered shall not be excavated, disturbed or otherwise picked over without prior agreement from the Agency.
- 5.15 No smoking shall be allowed on the facility other than in the Control Building as shown on Drawing No. 002034/11/627 "Control Building Plan, Elevation & Section"

Reason: *To provide for the acceptance and management of wastes authorised under this waste licence.*

CONDITION 6 ENVIRONMENTAL NUISANCES

- 6.1 The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by vermin and odours. Written records shall be made of all inspections and any actions taken as a result of these inspections.
- 6.2 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.
- 6.3 All vehicles leaving the working face shall use the wheelwash unit, once commissioned, prior to leaving the facility.
- 6.4 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.
- 6.5 Unless otherwise agreed in advance with the Agency, the licensee shall provide and maintain litter fencing around the perimeter of cells 1 and 2 as detailed in Drawing No. 002034/11/650, "Details of Proposed Site Fencing Type 3 - Wind Blown Litter Fence".
- 6.6 All loose litter accumulated within the facility and its environs, excluding that which is deposited on the working face, shall be removed and appropriately disposed of on a daily basis.
- 6.7 Any waste placed on or in the vicinity of the facility, other than in accordance with the requirements of this licence, shall be removed by the licensee immediately and in any event by 10:00am of the next working day, after such waste is discovered. Such waste shall be disposed of at an appropriate facility.

- 6.8 The licensee shall ensure, insofar as it is practicable, that all vehicles delivering waste to and from the facility are appropriately covered.
- 6.9 The licensee shall ensure that the activities shall be carried out in a manner such that odours do not result in significant impairment of, or significant interference with amenities or the environment beyond the facility boundary.
- 6.10 The licensee shall ensure that birds, vermin, flies and dust do not give rise to nuisance at the facility or the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.

Reason: To provide for the control of nuisance.

CONDITION 7 EMISSIONS AND ENVIRONMENTAL IMPACTS

- 7.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule G: Emissions* of this licence.
- 7.2. 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.
- 7.3. 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.
- 7.4. There shall be no clearly audible tonal or impulsive component in the noise emissions from the activity at the facility boundary.
- 7.5. Within three months of the date of grant of this licence, the licensee shall submit proposals to the Agency for the setting of trigger levels for landfill gas emissions from the facility measured in any service on or immediately adjacent to the facility and/or at any other point located outside the body of the waste. The proposal should include trigger levels for methane and carbon dioxide.
- 7.6. Emissions to Surface Water
- 7.6.1. Emissions to surface water from the facility shall only be made to the Glaishty River at the location designated by emission point reference number EF-02 shown on Drawing No. 002034/11/612 Revision C "General Arrangement of Site Area".
- 7.6.2. No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.
- 7.7. Disposal of Leachate
- 7.7.1. Leachate shall not be discharged to the Glaishty River.
- 7.7.2. Unless otherwise agreed in advance with the Agency, leachate shall be removed from the facility for treatment at the Castlebar Sewerage Treatment Works.

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

CONDITION 8 RESTORATION AND AFTERCARE

- 8.1. Unless otherwise agreed in advance or instructed by the Agency, the final profile of the landfill area shall be as shown in Drawing No. 002034/11/625, "Layout Plan Showing Plan Profile of Capped Site".
- 8.2. Within twelve months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement a restoration and aftercare plan (on a phased basis) for the facility (including the civic waste facility). The plan shall incorporate details given as mitigation measures in Attachment H7 of the application. The licensee shall update this plan when required in writing by the Agency and submit proposed amendments to the Agency for its agreement.
- 8.3. Unless otherwise agreed in advance with the Agency, landscaping as described in Attachment H7 of the application shall be undertaken. The licensee shall submit, within three months of the date of grant of this licence, to the Agency for its agreement the timeframe for carrying out such works.
- 8.4. Completed areas of the landfill shall be profiled so that no depressions exist in which water may accumulate. Any depressions arising after profiling shall be rectified by the emplacement of suitable capping or restoration materials.
- 8.5. No material or object that is incompatible with the proposed restoration of the site shall be present within one metre of the final soil surface levels.

Reason: *To provide for the restoration and aftercare of the facility.*

CONDITION 9 ENVIRONMENTAL MONITORING

- 9.1. The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule F: Monitoring* and as specified in the Conditions of this licence.
- 9.2. Within three months of the date of grant of this licence, the licensee shall provide a unique number and twelve-figure National Grid Reference for each monitoring location.
- 9.3. Unless otherwise agreed by the Agency a bi-annual biological assessment of the Glaishty River shall be undertaken. This assessment shall include the use of appropriate biological methods such as the EPA Q-rating system for biological water quality assessment of rivers and streams. The report shall include a drawing showing the location of monitoring points, each identified by a unique number and a twelve figure grid reference.
- 9.4. Within six months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement details of the permanent gas monitoring system to be installed in site buildings.
- 9.5. All landfill gas monitoring equipment used for monitoring landfill gas under the requirements of this licence shall be certified as being intrinsically safe.

- 9.6. Within six months from the date of grant of this licence, the licensee shall submit a written proposal to the Agency for its agreement specifying a monitoring programme for both the surface water discharged from the site and the flow in the Glaishty River. The proposal shall, at minimum, include and fulfil the requirements of *Schedule F.4.1, Surface Water* monitoring.
- 9.7. Within three months from the date of grant of this licence, the licensee shall submit a written proposal to the Agency for its agreement specifying a programme for the monitoring of leachate to be removed from site.
- 9.8. The licensee shall within twelve months of the grant of this licence submit a proposal for an investigation into the nature and extent of the groundwater contamination in the vicinity of the site, in so far as it relates to the site, to the Agency for its agreement. The proposal shall specify a monitoring programme to assess surface water and groundwater within the area confined by the cut-off wall and trench. The report shall include details of any remediation of surface water and groundwater deemed necessary and a time-scale for such works.
- 9.9. Within three months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement, a written proposal on monitoring of leachate levels within the filled waste and in the ponds to the northern and eastern ends of the landfill. The proposal shall, at minimum, include and fulfil the requirements of *Schedule F.4.3 Leachate* monitoring. The report shall include a drawing showing all leachate monitoring locations.
- 9.10. Within three months from the date of grant of this licence, the licensee shall submit to the Agency a drawing showing the location of all private wells within 500m downgradient of the facility boundary and include them in the monitoring programme set out in Schedule F.
- 9.11. The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and (subject to landowners' agreement) off-site points as agreed with the Agency.
- 9.12. In the event that any monitoring boreholes become damaged or prove to be unusable for their purpose, they shall be replaced within three months of the date of receipt of a notification to this effect from the Agency. Any replacement shall be constructed in the manner set out in such a notification and shall be subject to the unique numbering system required by this licence.
- 9.13. Ionic balances shall be carried out on groundwater and surface water monitoring results performed annually.
- 9.14. 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 or discharge or environmental parameter.
- 9.15. The licensee shall amend the frequency, locations, methods and scope of monitoring, sampling, analyses and investigations 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.
- 9.16. Unless otherwise agreed in writing with the Agency, a written record shall be kept of the names, qualifications and a summary of relevant experience 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.
- 9.17. The licensee shall maintain all sampling and monitoring points so that they may be used for the representative sampling and monitoring of emissions from the facility.

- 9.18. A topographical survey including the void space shall be carried out within three months of the date of grant of this licence. It shall be repeated annually thereafter. The survey shall be in accordance with any written instructions issued by the Agency.

Reason: *To ensure compliance with the requirements of other conditions of this licence by provision of a satisfactory system of measurement and monitoring of emissions.*

CONDITION 10 CONTINGENCY ARRANGEMENTS

- 10.1. 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.
- 10.2. Contingency Arrangements for the facility shall be as detailed in Attachment K.1 "Contingency Arrangements" of the application.
- 10.3. 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.
- 10.4. 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.
- 10.5. No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency. Immediate action shall be taken to extinguish it and the appropriate authorities notified.
- 10.6. In the event that monitoring of local wells (identified in Condition 9) 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 incident. The licensee shall submit to the Agency for its agreement and within a time specified in writing by the Agency, written proposals for the provision of an alternative supply of water to those affected.
- 10.7. In the event that any monitoring, sampling or observations indicate that an incident has, or may have, taken place, 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;
 - c) isolate the source of the 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) identify and put in place measures to avoid reoccurrence of the incident, and;
 - g) identify and put in place any other appropriate remedial action.

Reason: *To provide for the protection of the environment.*

CONDITION 11 CHARGES AND FINANCIAL PROVISIONS

11.1 Agency Charges

- 11.1.1 The licensee shall pay to the Agency an annual contribution of £ 15,447 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 2000 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Consumer Price Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 1999, the licensee shall pay a pro rata amount from the date of this licence to 31st December 1999. This amount shall be paid to the Agency within one month of the date of grant of this licence.
- 11.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased on or adjacent to the facility and associated with the facility, the licensee shall contribute such sums as determined by the Agency to defraying its costs.

11.2 Financial Provision for Closure, Restoration and Aftercare

- 11.2.1 The licensee shall from a date to be set in writing by the Agency establish and maintain a fund, or other form of approved security or guarantee, that is adequate to assure the Agency that the licensee is at all times financially capable of complying with the Restoration and Aftercare Plan required by Condition 8. The type of fund and means of its release/recovery shall be submitted in writing to the Agency for its agreement prior to establishment.
- 11.2.2 The fund shall be maintained in an amount always sufficient to underwrite the current Restoration and Aftercare Plan.
- 11.2.3 The licensee shall revise the cost of aftercare and restoration annually and any details of the necessary adjustments to the above fund must, within two weeks of the revision, be forwarded to the Agency for its agreement.
- 11.2.4 Unless otherwise agreed by the Agency, 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 facility 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 Activities

Activities authorised by the licence shall be restricted to those described below.

Waste Management Act, 1996: Third Schedule ^{Note 1}	
Class 1.	Deposit on, in or under land (including landfill): This activity is limited to the landfilling of Non-hazardous Waste at the facility
Class 5.	Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment. This activity is limited to the disposal of Non-hazardous Waste into lined cells at the facility; the construction of a cut-off wall around the site; the collection and pumping of leachate to a treatment plant; the collection and flaring of landfill gas.
Class 6.	Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule: This activity is limited to the biological treatment of leachate arising from the waste disposed of on site.
Class 7.	Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule: This activity is limited to the physico-chemical treatment of leachate arising from the waste disposed of on site.
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 was produced. This activity is limited to the storage of waste at the civic waste facility for eventual disposal, as well as the storage of waste not acceptable for disposal at the landfill.

Note 1: Any reference to an activity Class is to be taken as being from the Third Schedule of the Waste Management Act, 1996, unless otherwise stated.

Waste Management Act, 1996: Fourth Schedule ^{Note 1}	
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 reclamation of organic wastes within the civic waste facility
Class 3.	Recycling or reclamation of metals and metal compounds: This activity is limited to the reclamation of metals and metal compounds within the civic waste facility.
Class 4.	Recycling or reclamation of other inorganic materials: This activity is limited to the reclamation of inorganic materials arising from the waste disposed at the civic waste 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 wastes arising from the waste disposed at the civic waste facility for the purpose of recovery.

Note 1: Any reference to an activity Class is to be taken as being from the Fourth Schedule of the Waste Management Act, 1996, unless otherwise stated.

SCHEDULE B :Content of the Environmental Management Programme

Environmental Management Programme

Items specified to be contained in an Environmental Management Plan in the Landfill Operational Practices Manual published by the Agency, or otherwise as agreed with the Agency

Timescale for achieving the objectives and targets listed in the Schedule of Objectives and Targets

Designation of Responsibility for Achieving Targets and Objectives

Other items specified by the Agency

SCHEDULE C :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 received, disposed of and recovered during the reporting period and each previous year.

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

Methods of deposition of waste.

Summary report on emissions.

Summary of results and interpretations of environmental monitoring, including plans of all monitoring locations including 12 digit grid references.

Resource and energy consumption summary.

Proposed development of the site and timescale of such development.

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

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

Report on leachate management.

Report on the biological status of the Glaishty River.

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 site.

Estimated annual and cumulative quantity of indirect emissions to groundwater.

Monthly water balance calculation and interpretation.

Meteorological Report.

Schedule of Environmental Objectives and Targets for the forthcoming year.

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

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

Tank, pipeline 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.

Any other items specified by the Agency.

NOTE 1 Content to be revised subject to the written agreement of the Agency after cessation of waste acceptance at the facility.

SCHEDULE D :Recording and Reporting to the Agency

Table D.1 Recurring Reports

Report	Reporting Frequency Note1	Report Submission Date
Environmental Management System Updates	Annually	One month after the end of the year reported on.
Annual Environment Report (AER)	Annually	Twelve 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	Three months from the date of construction of bunds and prior to use 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 Leachate being removed from site	As agreed under Condition 9.7	Ten days after end of the period being reported on.
Monitoring of diverted surface water/groundwater to Glaishty River	As agreed under Condition 9.6	Ten days after end of the period being reported on.
Monthly Monitoring	Monthly	Ten days after end of the quarter being reported on.
Monitoring of Surface Water Quality Monitoring of Groundwater Quality Monitoring of Leachate Monitoring of diverted Water Quality		
Quarterly Monitoring	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of landfill gas Monitoring of Surface Water Quality Monitoring of Groundwater Quality Monitoring of Leachate		
Biological Assessment	Biannual Monitoring	Ten days after end of the period being reported on.
Annual Monitoring	Annually	One month after end of the year being reported on.
Dust Monitoring Noise Monitoring Meteorological Monitoring Topographical survey of entire site		Within three months of date of grant of licence and annually thereafter

Note 1: Unless altered at the request of the Agency

Table D.2 Once-off Reports

Report and Contents	Condition Number	Report Submission Date (Number of months within which to submit, from date of granting of licence, unless otherwise specified)
Scope		
(i) Site Plan	1.2	1
Environmental Management System		
(i) EMS Proposals	2.1	12
(ii) Schedule of Objectives and Targets	2.2	6
(iii) Environmental Management Programme	2.3	6
(iv) Management Structure	2.6	3
(v) Communication Programme	2.7	6
Infrastructure		
(i) Proposals for site security	4.3.1	3
(ii) Site Roads	4.4.1	3
(iii) Details of potable water supply/wastewater borehole	4.8	3
(iv) Septic Tank System	4.11	3
(v) Bunded storage areas for fuel/household hazardous waste	4.12	3 months after construction and prior to use
(vi) Details of plant sheds, garages and equipment compound	4.13	6 months and prior to its construction
(vii) Location of meteorological station	4.16	6 months and prior to installation
(viii) Groundwater control	4.19	
(a) Cut-off wall depth into bedrock	4.19.1	3
(b) Details of material for cut-off wall	4.19.2	3 months and prior to construction
(c) Details of settling pond	4.19.4	6 months and prior to construction
(d) Proposal for monitoring borehole(s)	4.19.5	3
(ix) Borrow area	4.20	
(a) Details of extraction, grading, storage and use	4.20.1	3
(x) Landfill lining	4.21.1	6 months and prior to construction
(xi) Landfill gas management	4.22	
(a) Proposals for landfill gas control system	4.22.1	6
(xii) Leachate management	4.23	
(a) Report on leachate removal	4.23.1	3
(b) Details on collection sump	4.23.2	3 months and prior to construction
(c) Details of methods to reduce leachate levels	4.23.4	3
(d) Leachate treatment/storage details	4.23.5	3
(xiii) Capping	4.24.	
(a) Details on surface water control	4.24.2	3 months prior to commencement of capping
(xiv) Construction schedule/sequence	4.26	3
Waste Acceptance		
(i) Waste Acceptance Procedures	5.4	6
Emissions and Environmental Impacts		
(i) Proposal for landfill gas trigger levels	7.5	3
Restoration and Aftercare		
(i) Proposal for restoration and aftercare plan	8.2	12
(ii) Timeframe for landscaping	8.3	3

Table D.2 (Continued) Once-off Reports

Report and Contents	Condition Number	Report Submission Date (Number of months within which to submit, from date of granting of licence, unless otherwise specified)
Environmental Monitoring		
(i) Grid references	9.2	3
(ii) A proposal for a permanent gas monitoring system to be installed in the site office.	9.4	6
(iii) A proposal for the monitoring of both the surface water emission flow and Glaiswy River	9.6	6
(iv) A proposal for the monitoring of leachate to be removed from site	9.7	3
(v) Groundwater investigation	9.8	6
(vi) A proposal for the monitoring of leachate levels	9.9	3
(vii) A drawing showing the location, if any, of all private wells within 500m downgradient of the facility in the monitoring programme	9.10	3
Contingency Arrangements		
(i) Emergency Response Procedures	10.1	6
(ii) Contingency proposals for alternative supply of water to residents if necessary	10.6	If required

SCHEDULE E :Specified Engineering Works

Specified Engineering Works
<p>Fencing and site security works.</p> <p>Construction of control building and plant sheds, garages and equipment compound.</p> <p>Wheelwash construction.</p> <p>Installation of weighbridge.</p> <p>Construction of storage areas for fuel & household hazardous waste.</p> <p>Construction of civic waste facility.</p> <p>Construction of waste inspection/quarantine areas.</p> <p>Installation of groundwater control and/or monitoring systems.</p> <p>Surface water management works.</p> <p>Development of borrow area.</p> <p>Development of two future Cells of the facility including preparatory works and lining.</p> <p>Installation of landfill gas management and monitoring systems.</p> <p>Installation of leachate management, collection, treatment, monitoring and control systems.</p> <p>Installation of alternative drinking water supplies.</p> <p>Landfill cap installation, including temporary and intermediate capping, installation and all other containment works (including any containment works relating to leachate control).</p> <p>Restoration and aftercare works.</p> <p>Any other works notified in writing by the Agency.</p>

SCHEDULE F : Monitoring

Monitoring to be carried out as specified below.

F.1 Landfill Gas

Landfill gas monitoring locations shall be those, i.e. G1 to G15 except G3, G5, and G12 which have since been destroyed, as set out in Attachment C.6 of the application.

Table F.1.1 Landfill Gas Monitoring Frequency and Technique

Parameter	Monitoring Frequency		Analysis Method ^{Note1} /Technique ^{Note2}
	Gas Boreholes/ Vents/Wells	Site Office	
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
Hydrogen Sulphide (H ₂ S))	Monthly	Weekly	Electrochemical
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.

F.2 Dust

Three dust monitoring locations to be agreed with the Agency within three months of date of this licence in accordance with Condition 9.2.

Table F.2.1 Dust Monitoring Frequency and Technique

Parameter (mg/m ² /day)	Monitoring Frequency	Analysis Method/Technique
Dust	Annually ^{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: During the period May to September, or as otherwise specified in writing by the Agency.

F.3 Noise

Noise Monitoring Locations shall be N1, N2, N5 and N6 as set out in Attachment C8 of the application.

Table F.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."

F.4 Surface Water, Groundwater and Leachate

F.4.1 Surface Water.

Surface water monitoring locations shall be S1 to S6 as set out in Attachment C9 (Figure C.9.1) of the application.

Additional monitoring points to be included subject to Condition 9.6 (Discharge of diverted surface water/groundwater to the Glaishty River). At minimum, diverted surface water/groundwater shall be monitored monthly (unless flow in that month does not allow such monitoring) for parameters denoted by Note 5 in Table F.4.1, at a monitoring location to be agreed with the Agency.

F.4.2 Groundwater.

Groundwater monitoring locations shall be those, i.e. MW1, MW2s, MW2d, MW3, MW4s, MW4d, MW5, MW7, as set out in Attachment C.6 of the application and the location(s) to be agreed within three months of date of licence as per Condition 4.19.

All private wells within 500m downgradient of the facility boundary to be sampled on an annual basis for the following as a minimum: ammoniacal N, EC, K, Na, TOC and bacteriological. A written report and interpretation shall accompany the analysis results.

F.4.3 Leachate

Minimum of four leachate monitoring locations to be agreed with the Agency within three months of date of this licence in accordance with Condition 9.9. One of these shall be monitoring location MW6, as shown in Attachment C.6 of the application. Leachate monitoring and frequency shall be as set out in Table F.4.2.

Table F.4.1 Water and Leachate - Parameters /Frequency

Parameter ^{Note 1}	SURFACE WATER	GROUNDWATER	LEACHATE
	Monitoring Frequency	Monitoring Frequency	Monitoring Frequency
Visual Inspection/Odour ^{Note 2}	Weekly	Quarterly	Quarterly
Groundwater Level	Not Applicable	Monthly	Not Applicable
Leachate Level	Not Applicable	Not Applicable	Weekly
Ammoniacal Nitrogen	Monthly ^{Note 5}	Monthly	Monthly
BOD	Monthly ^{Note 5}	Not Applicable	Monthly
COD	Quarterly	Not Applicable	Quarterly
Chloride	Quarterly	Quarterly	Quarterly
Dissolved Oxygen	Quarterly	Quarterly	Not Applicable
Electrical Conductivity	Monthly ^{Note 5}	Monthly	Monthly
pH	Monthly ^{Note 5}	Monthly	Monthly
Total Suspended Solids	Monthly ^{Note 5}	Not Applicable	Monthly
Temperature	Monthly ^{Note 5}	Monthly	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	Annually	Quarterly
Lead	Annually	Annually	Annually
List I/II organic substances ^{Note 3}	Annually	Annually	Annually
Magnesium	Annually	Annually	Annually
Manganese	Annually	Annually	Annually
Mercury	Annually	Annually	Annually
Nickel	Annually	Annually	Annually
Potassium	Quarterly	Quarterly	Quarterly
Sulphate	Annually	Annually	Annually
Sodium	Quarterly	Quarterly	Quarterly
Total Alkalinity	Annually	Annually	Not Applicable
Total Phosphorus / orthophosphate	Monthly ^{Note 5}	Monthly	Monthly
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	Annually	Annually
Total Coliforms ^{Note 4}	Not Applicable	Annually	Annually

Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures. The testing laboratory and the testing procedures shall be agreed in writing with the Agency in advance.

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). In cases where large quantities of harbour dredgings have been accepted at the site it is recommended to analyse for organotin compounds. Where there is reason to suspect organophosphorous contamination it is recommended to also scan for these compounds.

Note 4: 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: Discharge of diverted surface water/groundwater, at a monitoring location to be agreed in accordance with Condition 9.6, shall be monitored on a monthly basis for these parameters unless flow in that month does not allow such monitoring.

Table F.4.2 Leachate Monitoring Locations and Frequency

Monitoring Medium	Parameters	Frequency		Monitoring Points
		Operational	Aftercare	
Leachate in waste body/cells	Leachate levels in waste body/cells	Weekly	Monthly	Note 1
	Leachate composition analysis as per Table F.4.1	As per Table F.4.1	See Note 2	

Note 1: Minimum of four leachate monitoring points to be agreed with the Agency in accordance with Condition 9.9

Note 2: For permanently capped cells or cells in aftercare phase monitoring shall be at half the frequency specified in Table F.4.1 with a minimum of once per annum.

F.5 Meteorological Monitoring

Monitoring location to be agreed with the Agency in accordance with Condition 4.16.

Table F.5.1 Meteorological Monitoring:

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

SCHEDULE G :Emission Limits

G.1 Noise Emissions: Measured at Noise Sensitive Locations.

Day dB(A) L _{Aeq} (30 minutes)	Night dB(A) L _{Aeq} (30 minutes)
55	45

G.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

G.3 Dust Deposition Limits: Measured at the dust monitoring locations to be agreed with the Agency within three months in accordance with Condition 9.2.

Level (mg/m ² /day) ^{Note 1}
350

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

Part III - 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) to refuse the following classes of activities.

Refused classes of activity in accordance with the Third Schedule of the Waste Management Act 1996.

Class 10: Release of waste into a water body (including a seabed insertion).

REASON: The proposed activity would not comply with the requirements of Section 40(4) of the Waste Management Act, 1996.



Sealed by the Seal of the Agency on this 21st day of December 1999

PRESENT when the Seal of the Agency

was affixed hereto:

Anne Butler

Director/Authorised Person