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County Wexford, Ireland

WASTE LICENCE  
PROPOSED DECISION

<b>Waste Licence Register Number:</b>	59-1
<b>Applicant:</b>	Roscommon County Council
<b>Location of Facility:</b>	Ballaghaderreen Landfill, Aghalustia Townland, Ballaghaderreen, Co. Roscommon

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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 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 Environmental Protection Agency (the Agency) proposes, under Section 40(1) of the said Act to grant this Waste Licence to Roscommon County Council, Courthouse, Roscommon to carry on the waste activities listed below at Ballaghaderreen Landfill, Aghalustia Townland, Ballaghaderreen, Co. Roscommon 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 4:* Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.
- 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 11:* Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
- Class 12:* Repackaging prior to submission to any activity referred to in a preceding paragraph 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

<b>Act</b>	The Waste Management Act, 1996 (No. 10 of 1996).
<b>Adequate lighting</b>	20 lux measured at ground level.
<b>Agreement</b>	Agreement in writing.
<b>Attachment</b>	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
<b>Application</b>	The application by the licensee for this waste licence, 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.
<b>Appropriate facility</b>	A waste management facility, duly authorised under relevant law and technically suitable.
<b>BAT</b>	Best Available Techniques as defined in Article 2(11) of Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control.
<b>Biodegradable waste</b>	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard.
<b>Civic Waste Facility</b>	Facility at which waste may be deposited by members of the public in accordance with the conditions of this licence.
<b>Commercial waste</b>	As defined in Section 5 (1) of the Act.
<b>Condition</b>	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
<b>Containment boom</b>	A boom which can contain spillages and prevent these from entering drains or watercourses.
<b>Cover material</b>	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.
<b>Daytime</b>	8.00 a.m. to 10.00 p.m.
<b>Documentation</b>	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence
<b>Drawing</b>	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
<b>Emission</b>	As defined in Section 5 (1) of the Act.

<b>Emission Limit Value</b>	Those limits, including concentration limits and deposition levels established in Schedule G.
<b>Environmental Pollution</b>	As defined in Section 5 (1) of the Act.
<b>European Waste Catalogue (EWC)</b>	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.
<b>Facility</b>	That area or areas defined under Condition 1.2
<b>Green waste</b>	Waste wood, plant matter and other vegetation.
<b>Hazardous Waste</b>	As defined in Section 4 (2) of the Act.
<b>Household Waste</b>	As defined in Section 5 (1) of the Act.
<b>Inert waste</b>	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.
<b>Incident</b>	Any reference to an incident in this licence means an incident as defined in Condition 3.1.
<b>Industrial waste</b>	As defined in Section 5 (1) of the Act.
<b>Landfill</b>	As defined in Section 5 (1) of the Act.
<b>Landfill Gas</b>	Gases generated from the landfilled waste.
<b>Leachate</b>	Any liquid percolating through the deposited waste and emitted from or contained within a landfill as defined in Section 5 (1) of the Act.
<b>LEL (Lower Explosive Limit)</b>	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.
<b>Licence</b>	A Waste Licence issued in accordance with the Act.
<b>Licensee</b>	Roscommon County Council
<b>List I/II Organics</b>	Substances classified pursuant to EC Directives 76/464/EEC and 80/68/EEC
<b>Liquid Waste</b>	Any waste in liquid form and containing less than 2% dry matter
<b>Maintain</b>	Keep in a fit state, including such regular inspection, servicing and repair as may be necessary to adequately perform its function.
<b>Mobile Plant</b>	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works

<b>Monthly</b>	At least 12 times per year, at approximately monthly intervals.
<b>Municipal Waste</b>	Municipal waste as defined in Section 5 (1) of the Act.
<b>Night-time</b>	10.00 p.m. to 8.00 a.m.
<b>Non-hazardous waste</b>	Non-Hazardous Waste is any waste which is not a hazardous waste as defined in the Act.
<b>Quarterly</b>	A period of three calendar months, the first period of which commences on the date of grant of this licence
<b>Recovery</b>	As defined in Section 4 (4) of the Act.
<b>Sample(s)</b>	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments
<b>Sludge</b>	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment with between 2% and 14% dry matter.
<b>Specified Emissions</b>	Those emissions listed in Schedule G: Emission Limits of this licence.
<b>Specified Engineering Works</b>	Those engineering works listed in Schedule E: Specified Engineering Works of this licence.
<b>Submit</b>	Unless the context of this licence indicates otherwise, submit in writing to the Agency for its agreement
<b>Treated Sludge</b>	Sludge which has undergone biological, chemical or heat treatment, long-term storage or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use.
<b>Trigger Level</b>	A parameter value which when achieved or exceeded requires certain actions to be taken.
<b>Waste</b>	As defined in Section 4(1) of the Act.
<b>Waste disposal activity</b>	Includes the activities referred to in Section 4 of the Act and listed in the Third Schedule thereto.
<b>Waste recovery activity</b>	Includes the activities referred to in Section 4 of the Act and listed in the Fourth Schedule thereto.
<b>White Goods</b>	Refrigerators, cookers, ovens and other similar appliances.
<b>Working Day</b>	9.00 a.m. to 5.30 p.m. Monday to Friday.
<b>Working Face</b>	The area of the site in which waste other than cover material or material for the purposes of the construction of specified engineering works is being deposited.

## **Part II CONDITIONS**

### **CONDITION 1 SCOPE**

- 1.1. Waste activities at the facility shall be restricted to those listed and described in Schedule A: Waste Activities and required by the licence.
- 1.2. Waste activities shall be restricted to the area of land outlined in red on Drawing No. B2.2 - Site Plan of the application. 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 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. 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 its agreement.

2.1.2    The EMS shall include as a minimum those elements specified in the Conditions 2.2 to 2.7 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 nine 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    Within six months of the date of grant of this licence the licensee shall establish and maintain written Corrective Action Procedures to ensure that corrective action is taken should specified requirements to this licence not be fulfilled.

### 2.5    Awareness and Training

2.5.1    Within six months of the date of grant of this the licensee shall 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) details of the responsibilities for each individual named under a) above;
- c) details of the relevant experience, competence and qualifications held by each of the persons nominated under a) above; and
- d) contingency arrangements for the absences of the named persons from the facility.

## 2.7 Communications

2.7.1 Within twelve months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement 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 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).

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 nuisance caused by the activity
- b) 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;

- c) any emission which does not comply with the requirements of this licence;
  - d) any trigger level specified in this licence which is attained or exceeded;
  - e) any indication that environmental pollution has, or may have, taken place;
  - f) any occurrence with the potential for environmental pollution; and,
  - g) any emergency.
- 3.2 The written record shall include all aspects described in Condition 10.6(a-e).
- 3.3 Unless otherwise instructed in writing by the Agency, 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 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; and
  - c) in the event of any incident which relates to discharges to surface water, notify Shannon Regional Fisheries Board as soon as practicable and in any case not later than 10:00 am on the following working day after such an 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) 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; and
  - g) in the case of results of any environmental monitoring, be accompanied by a written interpretation setting out their significance.
- 3.6 Copies of all environmental monitoring data obtained by the licensee which relates to the facility shall be forwarded to the Agency at the frequencies set out in Schedule D: Recording and Reporting to the Agency of this licence.
- 3.7 Unless otherwise agreed with the Agency, all documentation and records required to be made under this licence, shall be retained by the licensee.
- 3.8 The licensee shall provide additional copies of any documentation and records referred to in this licence to the Agency upon written request, within the time specified in writing by the Agency.

- 3.9 The licensee shall keep the following documents at the facility office referred to in Condition 4.5.
- a) the current waste licence relating to the facility;
  - b) the current EMS for the facility;
  - c) the previous year's AER for the facility;
  - d) all written procedures produced by the licensee which relate to the licensed activities.
- 3.10 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 (including, if appropriate, the waste carrier registration details);
  - b) the vehicle registration number;
  - c) the name of the producer(s)/collector(s) of the waste as appropriate;
  - d) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;
  - e) a description of the waste including the associated EWC codes;
  - f) the date waste arrived at facility;
  - g) the quantity of the waste, recorded in tonnes (or an estimate, prior to the installation of the weighbridge required by Condition 4.8)
  - h) the name of the person checking the load;
  - i) a written record of all inspections carried out in the waste inspection area required by Condition 4.7, once installed; and,
  - j) 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.
- 3.11 The licensee shall maintain a written record of the type and quantity, recorded in tonnes, of all wastes recovered or disposed of at the facility.
- 3.12 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.
- 3.13 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.

3.14 Civic Waste Facility.

A written record shall be kept for each load of waste departing from the Civic Waste Facility. Each such record shall give details of the following:

- a) the date on which filling of the container commenced;
- b) the date on which the container was filled;
- c) the number of sealed containers being stored overnight;
- d) the name of the carrier;
- e) the vehicle registration number;
- f) the destination of the waste (facility name and waste licence/permit number as appropriate);
- g) a description of the waste (if recovered or rejected waste, the specific nature of the waste);
- h) the quantity of waste, recorded in tonnes;
- i) the name of the person checking the load; and,
- j) the time and date of departure.

3.15 Provision shall be made for the transfer of environmental information specified by the Agency, in relation to the activities carried on under this licence, to the Agency's computer system within a timescale specified in writing by the Agency.

**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 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, the licensee shall provide and maintain a Site Notice Board 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 six months of the date of grant of this licence, the licensee shall provide and maintain security and stockproof fencing and gates as described in Attachment D.1a. The base of the fencing shall be set in the ground.

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 with the Agency.

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

#### 4.4 Site Roads and Hardstanding

4.4.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility. Unless otherwise agreed with the Agency site roads shall be in accordance with specifications detailed in Attachment D1.b and Drawing No. D1.1 – Proposed Site Layout and Infrastructure.

4.4.2 Unless otherwise agreed in with the Agency traffic control including signage within the facility shall be in accordance with Attachment D1.j and as shown on Drawing No. D1.1 – Proposed Site Layout and Infrastructure.

4.5 The licensee shall provide and maintain an office on the facility, at the location shown in Drawing No. D1.1 – Proposed Site Layout and Infrastructure. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.

4.6 The licensee shall provide and maintain a working telephone and facsimile machine in the office specified in Condition 4.5 above.

#### 4.7 Inspection

4.7.1 Within nine months from the date of grant of this licence, the licensee shall provide and maintain a Waste Inspection Area and a Waste Quarantine Area at the facility.

4.7.2 The licensee shall ensure that these areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be suitably and clearly segregated from each other.

4.7.3 Drainage from these areas shall be directed to the leachate lagoon, referred to in Condition 4.13, or as otherwise agreed with the Agency.

4.8 Within six months from the date of grant of this licence, the licensee shall provide and maintain a weighbridge at the facility. Unless otherwise agreed with the Agency the location of the weighbridge shall be as shown in Drawing No. D1.1 – Proposed Site Layout and Infrastructure.

#### 4.9 Wheelwash

4.9.1 Within six months from the date of grant of this licence, the licensee shall establish and maintain a wheelwash at the facility. Unless otherwise agreed with

the Agency the location of the wheelwash shall be as shown on Drawing No. D1.1 – Proposed Site Layout and Infrastructure.

4.9.2 The wheelwash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel cleaner and disposed of at the working face. The wheelwash water be directed to the leachate lagoon, referred to in Condition 4.13, or as otherwise agreed with the Agency.

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

4.11 The licensee shall provide and maintain toilet facilities as described in Attachment D1.k. Unless otherwise agreed with the Agency the location of these facilities shall be as shown on Drawing No. D1.1 Proposed Site Layout and Infrastructure.

#### 4.12 Storage Areas

4.12.1 Within nine months of the date of grant of this licence, the licensee shall provide and maintain a bunded fuel storage area at the facility. Unless otherwise agreed with the Agency the location of the fuel storage area shall be as shown on Drawing No. D1.1 Proposed Site Layout and Infrastructure.

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 must be within the bunded area.

4.12.5 The integrity and water tightness of 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 as part of the AER. 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 at the facility. 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, including tankers used to transport leachate from the facility, shall be labelled to clearly indicate their contents.

#### 4.13 Leachate Management

4.13.1 Within twelve months of the date of grant of this licence, the licensee shall install a leachate management system at the facility. The system shall provide for the abstraction/collection of leachate from the waste and its treatment either at the facility or at a suitable treatment works.

4.13.2 Within nine months of the date of grant of this licence the licensee shall provide and maintain a leachate storage lagoon at the facility to facilitate the storage of leachate abstracted/collected from the waste. Unless otherwise

agreed with the Agency, the lagoon lining shall be a composite liner consisting of,

- an upper component of a flexible membrane liner. At minimum a 2mm HDPE or equivalent flexible membrane liner should be used; and
- a lower component of a 1m layer of compacted soil with a hydraulic conductivity of less than or equal to  $1 \times 10^{-9}$  m/s constructed in a series of compacted lifts no thicker than 250mm when compacted or a 0.5m artificial layer of enhanced soil giving equivalent protection to the foregoing also constructed in a series of compacted lifts no thicker than 250mm when compacted.

4.13.3 Unless treated on site in accordance with Condition 4.13.1, leachate stored in the leachate storage lagoon shall be disposed of by tankering off-site in fully enclosed road tankers and discharging to a Waste Water Treatment Plant agreed with the Agency.

4.13.4 The licensee shall submit to the Agency for its agreement prior to the use of the leachate storage lagoon Operational Procedures for the handling of leachate during removal from the lagoon and subsequent transport to a Waste Water Treatment Plant.

4.13.5 The frequency of leachate removal/discharge from the leachate lagoon shall be such that a minimum freeboard of 0.75m shall be maintained in the leachate lagoon at all times.

#### 4.14 Landfill Gas Management:

4.14.1 Within twelve months of the date of grant of this licence, a system for the active collection and flaring of landfill gas shall be installed at the facility. The flare shall be of an enclosed type design and shall comply with the emission limits in Schedule G. Details of the system to be installed shall be submitted to the Agency for its agreement within six months of the date of grant of this licence.

4.14.2 Flare unit efficiency shall be tested once it is installed and once every three years thereafter.

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

4.14.4 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.

4.14.5 Until the installation of the landfill gas flare and unless otherwise agreed with the Agency, passive landfill gas management at the facility shall be carried out. Landfill Gas management and infrastructure shall meet the recommendations given in the Agency Manual on "Landfill Operational Practices".

4.14.6 On an annual basis as part of the AER the licensee shall submit an assessment of whether the utilisation of landfill gas as an energy resource is feasible. If feasible such a system shall be installed within a timeframe agreed with the Agency.

#### 4.15 Capping

4.15.1 Unless otherwise agreed with the Agency, final capping shall consist of the following:

- top soil (150 -300mm) over subsoil such that total thickness of top soil and subsoils is at least 1m or peat/subsoil of at least 1 m thickness over a geosynthetic layer;
- drainage layer of 0.5m thickness having a minimum hydraulic conductivity of  $1 \times 10^{-4}$  m/s;
- compacted mineral layer of a minimum 0.6m thickness with a permeability of less than  $1 \times 10^{-9}$  m/s or a geosynthetic material (e.g. GCL) or similar that provides equivalent protection; and
- gas collection layer of natural material (minimum 0.3m) or a geosynthetic layer.

4.15.2 Filled cells/phases shall be permanently capped to the specifications agreed with the Agency in accordance with Condition 4.15.1 within twelve months of the cells/phases having been filled to the required level. The final contour levels shall be as shown on Drawing Number G1- Restoration proposals received on 15<sup>th</sup> November 1999.

#### 4.16 Landfill Lining:

4.16.1 Any new cells shall be lined to the a standard which satisfies the requirements of the Landfill Directive ((1999/31/EC), and unless otherwise agreed with the Agency, the landfill liner for all cells shall be a composite liner consisting of a basal mineral layer of at least 1m in thickness with a permeability of less than or equal to  $1 \times 10^{-9}$  m/s overlain by a 2mm thick high density polyethylene (HDPE) layer. The side walls shall be designed and constructed to achieve an equivalent protection.

#### 4.17 Surface Water Management

4.17.1 The licensee shall ensure effective control of surface water run-off from the facility during construction, operation and restoration.

4.17.2 Within twelve months of the date of grant of this licence, the licensee shall install surface water control measures for:

- (i) the prevention of leachate seepage into the surface water drains; and
- (ii) the collection/diversion of run off arising from capped and restored areas.

#### 4.18 Fire Control

4.18.1 Subject to Condition 4.18.2, the licensee shall provide fire control measures as described in Attachment D1.o.

4.18.2 The licensee shall undertake an assessment of fire control and firewater retention provisions at the site. Within six months of the date of grant of this licence, the licensee shall submit a report to the Agency for agreement detailing the findings of the assessment and proposing any provisions considered necessary to obviate any possible risks identified.

#### 4.19 Civic Waste Facility

4.19.1 Within six months of the date of grant of this licence, the licensee shall establish the Civic Waste Facility infrastructure referred to in Attachments D1.c and D1.p.

4.19.2 The licensee shall provide and maintain the receptacles at the Civic Waste Facility at the locations shown in Drawing No. D1.1 – Proposed Site Layout and Infrastructure, and referred to as Civic Amenity Area, unless otherwise agreed



with the Agency. All receptacles shall be clearly labelled to indicate their contents.

4.19.3 Waste oils collected for recovery shall be stored as specified in Condition 4.12.

4.20 Specified Engineering Works

4.20.1 The licensee shall submit written proposals for all Specified Engineering Works, as defined in Schedule E: 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.

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

4.20.3 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) where relevant a drawing and sections showing the location of all samples and tests carried out;
- e) where relevant 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.

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

## CONDITION 5 WASTE MANAGEMENT

- 5.1. No hazardous waste, asbestos waste, liquid waste, industrial non-hazardous sludges or untreated sludges shall be disposed of at the facility. Other wastes where disposal is prohibited at the facility, unless otherwise agreed with the Agency are; septic tank waste, silt & dredgings, animal excrement (including paunch contents), animal blood, dried paints, dried varnish & dried lacquer, latex & rubber solutions.
- 5.2. Subject to Condition 5.1, and any requirements of Condition 5.3, only those waste types and quantities listed in Schedule H: Waste Acceptance shall be recovered or disposed of at the facility unless the prior agreement of the Agency has been obtained.
- 5.3. Waste Acceptance Procedures
  - 5.3.1. Unless otherwise agreed with or instructed by the Agency and subject to Condition 5.4, Waste Acceptance Procedures shall be carried out in accordance with Attachment E.2 and pages 5-11 of further information received on 15 November 1999.
- 5.4. As a minimum all wastes shall be checked at the working face to ensure that they comply with the requirements of the licence. When installed, the Waste Inspection Area shall be used in the determination of the acceptability of suspect loads, unless the waste is being removed from the facility. Any wastes deemed to be in contravention of this licence and/or unsuitable for recovery or disposal at this facility shall be removed for recovery or disposal at an appropriate alternative facility. Such waste shall be stored in the Waste Quarantine Area only and may be stored for a maximum of thirty-six hours, unless otherwise agreed with the Agency.
- 5.5. The quantity of wastes to be accepted for disposal at the landfill, shall not exceed 15,000 tonnes per annum, unless otherwise agreed in advance with the Agency. The total quantity of waste to be accepted at the facility for disposal from January 1999 onwards shall not exceed 120,000 tonnes.
- 5.6. Following the installation of the weighbridge as required under Condition 4.8, the licensee shall submit to the Agency, details of the amount of waste deposited at the facility since January 1999.
- 5.7. Wastes shall not be deposited in any cell or part of the landfill without the prior agreement of the Agency.
- 5.8. Within three months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement a plan showing the extent of current and historical phases of landfilling. Unless otherwise agreed with the Agency and in accordance with Condition 4.16, the area for current and future landfilling of wastes identified in Condition 5.2 will be restricted to the area defined in the aforesaid agreed plan.
- 5.9. Scavenging shall not be permitted at the facility.
- 5.10. Waste shall only be accepted at the facility between the hours of 8.00 a.m. to 4.30 p.m. Monday to Friday inclusive and 10.00 a.m. to 12.30 p.m. on Saturdays with the exclusion of Bank Holidays unless otherwise agreed in advance 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. The working face of the operational cell shall, at the end of each day, be covered with material suitable to minimise any nuisances occurring.
- 5.13. 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. Within three 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.
- 5.14. Treated Sludges
  - 5.14.1. Sewage sludge shall only be accepted at the facility between the hours of 8:30 a.m. and 2.00 p.m. Monday to Friday inclusive.
  - 5.14.2. All sludges shall be covered immediately with other waste.
  - 5.14.3. Within nine months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, handling procedures for sludges.
- 5.15. 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.
- 5.16. In order to prevent the formation of voids, all large hollow objects and other large articles deposited at the facility shall be crushed, broken up, flattened or otherwise treated.
- 5.17. Wastes once deposited and covered shall not be excavated, disturbed or otherwise picked over without prior agreement from the Agency.
- 5.18. No smoking shall be allowed on the facility (other than in the site office referred to in Condition 4.5).
- 5.19. Recovery

Within nine months of the date of grant of this licence, a report examining provisions for the following:

  - 5.19.1. the separation of recyclable materials from the waste;
  - 5.19.2. the use of inert waste as cover/restoration material at the facility.
  - 5.19.3. the achievement of the recovery targets for construction and demolition waste as specified in the Government publication "Changing Our Ways";
  - 5.19.4. the recovery of metal waste and white goods including the de-gassing of CFC's from refrigerators;
  - 5.19.5. the recovery of commercial waste, including cardboard;
  - 5.19.6. the recovery of sludges; and

5.19.7. composting of biodegradable or green waste at the facility having regard to good practice and sustainability.

shall be submitted to the Agency for its agreement.

5.20. 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.

5.21. Civic Waste Facility

5.21.1. Subject to Condition 4.19, the following wastes may be accepted at the Civic Amenity Facility in suitable individual containers: household and commercial waste; waste oils; glass; textiles; paper; metals; and any other recyclable wastes, subject to prior agreement with the Agency.

**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, birds, flies, mud, dust 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. Litter Control

6.3.1. All the measures and infrastructure described in Attachment F5 shall be applied to control litter at the facility.

6.3.2. All litter control infrastructure shall be inspected on a daily basis and the licensee shall remedy any defect in the litter netting as follows:

a) a temporary repair shall be made by the end of the working day; and,

b) a repair to the standard of the original netting shall be undertaken within three working days or as otherwise agreed with the Agency.

6.3.3. All loose litter accumulated within the facility and its environs, excluding that which is deposited on the working face, shall be removed subject to the agreement of the landowners and appropriately disposed of on a daily basis.

6.4. 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 10.00 am of the next working day, after such waste is discovered. Such waste shall be disposed of at an appropriate facility.

6.5. The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.

6.6. Dust Control

- 6.6.1. 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.
- 6.6.2. The Dust Control measures outlined in Attachment F3 shall be implemented at the facility.
- 6.7. Within six months from the date of grant of this licence the licensee shall submit to the Agency for its agreement, an assessment of the effectiveness of the bird control measures at the facility. This assessment shall include, where required:
- a) proposals for additional bird control measures;
  - b) method for assessing the effectiveness of such additional measures; and
  - c) timescales for the implementation of such measures.
- 6.8. Once installed, the wheelwash shall be used by all waste vehicles exiting the facility.
- 6.9. The licensee shall apply the vermin and fly control measures outlined in Attachment F9.
- 6.10. The licensee shall ensure that vermin, birds, flies, mud, dust and odours 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: Emission Limits of this licence. There shall be no other emissions of environmental significance.
- 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. Landfill Gas
- 7.4.1. The following are the trigger levels for landfill gas emissions from the facility measured in any service 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.
- 7.4.2. The landfill gas flare shall meet the emission limit values specified in Schedule G: Emission Limits.

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

a ) in the case of landfill gas flare:

Temperature 273 K, pressure 101.3 kPa, dry gas at 3% oxygen; and

b) in the case of landfill gas combustion plant:

Temperature 273 K, pressure 101.3 kPa, dry gas; 5% oxygen.

7.4.4. Emission limits for emissions to atmosphere in this licence shall be interpreted in the following way:-

7.4.4.1. Continuous monitoring

(i) No 24 hour mean value shall exceed the emission limit value.

(ii) 97% of all 30 minute mean values taken continuously over an annual period shall not exceed 1.2 times the emission limit value.

(iii) No 30 minute mean value shall exceed twice the emission limit value.

7.4.4.2. Non-Continuous Monitoring

(i) For any parameter where, due to sampling/analytical limitations, a 30 minute samples is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.

(ii) For all other parameters, no 30 minute mean value shall exceed the emission limit value.

(iii) For flow, no hourly or daily mean value shall exceed the emission limit value.

7.5. There shall be no direct emissions to groundwater.

7.6. Disposal of Leachate

7.6.1. Any leachate or other contaminated water removed from the facility shall be transported to a wastewater treatment plant as agreed in advance by the Agency. Disposal procedures for the leachate at the waste water treatment plant shall be in accordance with any written requirements of the Sanitary Authority.

7.6.2. Leachate or leachate contaminated surface water shall not be allowed to accumulate in areas other than within the leachate management system required under Condition 4.13, once implemented.

7.7. Emissions to Surface Water

7.7.1. No untreated leachate shall be discharged to the River Lung.

7.7.2. Subject to Condition 4.13, and in the event of any agreement by the Agency regarding on site treatment of leachate, the following shall apply;

7.7.2.1. Treated leachate shall only be discharged from the leachate treatment system at a location agreed with the Agency, when there is at least 0.5m<sup>3</sup>/s flow and greater than 200 dilutions in the River Lung and in accordance with the limits specified in Schedule G4: Surface Water Discharge Limits.

7.7.2.2. The licensee shall submit a report to the Agency, on any flow control measures required (at the leachate treatment facility and in the receiving water) to be implemented to satisfy the relevant conditions and schedules of this licence. This report shall contain as a minimum: the control measures, a leachate discharge flow control loop, the location and design of any sampling and measuring devices on the leachate discharge line and in the River Lung to ensure accurate readings (including backup equipment). No leachate shall be discharged until the proposals contained in this report have been agreed and implemented to the satisfaction of the Agency.

7.7.2.3. Where the requirements of Condition 7.7.2.2 are not met treated leachate shall be returned to the leachate storage lagoon or alternate location agreed with the Agency.

7.7.2.4. The acute toxicity of the undiluted final treated leachate to at least four aquatic species from different trophic levels shall be determined by standardised and internationally accepted procedures and carried out by a competent laboratory. A proposal for toxicity testing shall be submitted to the Agency for agreement prior to any discharge of treated leachate.

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

7.7.3. All lagoon structures on-site shall be inspected and certified fit for purpose every three years by an independent and appropriately qualified chartered engineer. Any remedial works recommended in this report must be implemented within a time-scale to be agreed with the Agency.

7.7.4. The equipment specified in Schedule F.6 of this licence, and agreed under Condition 7.7, shall be provided on-site. All treatment/abatement control and monitoring equipment shall be calibrated and maintained at all times when in use, as approved by the Agency.

**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 Restoration and Aftercare Plans for the facility shall be based on the plan submitted as part of Attachment G1 and have regard to the requirements of the Landfill Directive (1999/31/EC) and the guidance published in the Agency's Landfill Manual: *Landfill Restoration and Aftercare*.

8.2. Unless otherwise agreed in advance or instructed by the Agency, the final profile of the facility shall not exceed the levels shown in Drawing No. G1 – Restoration Proposals.

- 8.3. 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.
- 8.4. No material or object that is incompatible with the proposed restoration of the facility shall be present within one metre of the final soil surface levels.
- 8.5. Where tree planting is proposed to be carried out above waste-filled areas, a synthetic barrier shall be used to augment the clay cap. Topsoil and subsoil depths shall be a minimum of 1m unless otherwise agreed in advance with the Agency.

**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 from the date of grant of this licence, the licensee shall submit to the Agency for its agreement, additional monitoring locations to detect off-site migration of landfill gas, to facilitate monitoring to the south west of the filled areas.
- 9.3. Within three 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 the site office and any other enclosed structures at the facility.
- 9.4. The licensee shall within six months of the date of grant of this licence, submit to the Agency for its agreement additional noise monitoring proposals to provide for monitoring noise at the facility boundary.
- 9.5. The licensee shall within six months of the date of grant of this licence, provide for three additional groundwater monitoring boreholes. One of these boreholes shall be upgradient of the facility and the other two downgradient. The three boreholes shall be constructed for the purposes of monitoring groundwater in the limestone aquifer.
- 9.6. Subject to Condition 4.13 and in the instance of a proposal for on site treatment of leachate, the licensee shall also submit a written proposal to the Agency for its agreement specifying a monitoring programme for both the surface water discharge from the facility and the flow in the River Lung. The proposal shall, at a minimum, include the surface water monitoring requirements of Schedule F.5.4 – Water and Leachate – Parameter/Frequency.
- 9.7. The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and off-site points as required by the Agency. All ditches and drains located around the perimeter of the facility are to be kept clear such that monitoring can be carried out successfully.
- 9.8. The licensee shall maintain all sampling and monitoring points, and clearly label and name (including national grid number) all sampling and monitoring locations, so that they may be used for representative sampling and monitoring.
- 9.9. 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.
- 9.10. 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.

- 9.11. Unless otherwise agreed 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.
- 9.12. A topographical survey including the void space shall be carried out within six 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.
- 9.13. Within six months of the date of grant of this licence, and annually thereafter, the licensee shall carry out a stability assessment of the side slopes of the facility and provide a report on that assessment to the Agency.
- 9.14. Unless otherwise specified by this licence or agreed by the Agency, all environmental monitoring shall commence no later than two months after the date of grant of this licence.
- 9.15. Unless otherwise agreed in advance with the Agency, monitoring infrastructure which proves to be unsuitable for its purpose shall be replaced within three months of monitoring results indicating that the monitoring infrastructure is damaged or unsuitable.
- 9.16. Unless otherwise agreed with the Agency, an ecological survey, as outlined in Attachment J.2, shall be undertaken every three years and submitted to the Agency. The scope, content and details of the contractor carrying out the assessment shall be submitted to the Agency for its agreement prior to the assessment.
- 9.17. All landfill gas monitoring equipment used for monitoring landfill gas under the requirements of this licence shall be certified as being intrinsically safe.

**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. Subject to Condition 10.1, Contingency Arrangements for the facility shall be as detailed in Attachment K.
- 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. Unless otherwise notified in writing by the Agency, in the event that any monitoring, sampling, complaints 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) provide a proposal to the Agency for its agreement within one month 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.

**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 £12,977 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 2001 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 2000, the licensee shall pay a pro rata amount from the date of this licence to 31<sup>st</sup> December 2000. 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 or decreased 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 by the Agency establish and maintain a fund, or 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 8.1. The type of fund and means of its release/recovery shall be agreed by the Agency prior to its 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 restoration and aftercare annually and any details of the necessary adjustments to the fund 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.
- 11.2.4 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 changes, 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 <sup>Note 1</sup>	
<b>Class 1.</b>	<b>Deposit on, in or under land (including landfill):</b> This activity is limited to the landfilling of non-hazardous wastes specified in Condition 5.2.
<b>Class 4.</b>	<b>Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons:</b> This activity is limited to the storage of leachate in a lagoon.
<b>Class 6.</b>	<b>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:</b> This activity is limited to leachate treatment on site.
<b>Class 7.</b>	<b>Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule:</b> This activity is limited to leachate treatment on site.
<b>Class 11.</b>	<b>Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.</b> This activity is limited to the mixing and or compacting of waste.
<b>Class 12.</b>	<b>Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.</b> This activity is limited to repackaging of waste with potential for dispersal prior to disposal.
<b>Class 13.</b>	<b>Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.</b> This activity is limited to storage of wastes prior to disposal.

**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 <sup>Note 1</sup>	
<b>Class 2.</b>	<b>Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes):</b> This activity is limited to the recycling of materials subject to Condition 5.19 and/or 5.21
<b>Class 3.</b>	<b>Recycling or reclamation of metals and metal compounds:</b> This activity is limited to the recycling of metals subject to Condition 5.19 and/or 5.21
<b>Class 4.</b>	<b>Recycling or reclamation of other inorganic materials:</b> This activity is limited to the recycling of materials subject to Condition 5.19 and/or 5.21
<b>Class 13.</b>	<b>Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced:</b> This activity is limited to the use of inert material for use as cover material and in capping and hardstanding.

**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 <sup>NOTE 1</sup>

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 and any updates of all monitoring locations including 12 digit grid references.

Resource and energy consumption summary.

Proposed development of the facility and timescale of such development.

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

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

Report on restoration of completed cells/ phases.

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

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

Assessment of the feasibility of the utilisation of landfill gas as an energy resource.

Estimated annual and cumulative quantity of indirect emissions to groundwater.

Monthly water balance calculation and interpretation.

Schedule of Environmental Objectives and Targets for the forthcoming year to include recovery targets relating to those specified in the Government Publication "Changing Our Ways" and Conditions of this licence.

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.

Review of Nuisance Controls.

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 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 <sup>Note1</sup>	Report Submission Date
Environmental Management System Updates	Annually	One month after the end of the year reported on.
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	Three times a year	Ten days after the period being reported on
Noise Monitoring	Annually	One month after end of the year being reported on.
Any other monitoring	As they occur	Within ten days of obtaining results.

Note 1: Unless altered at the request of the Agency

# SCHEDULE E : Specified Engineering Works

## Specified Engineering Works

Development of Phases and future Cells of the facility including preparatory works and lining.

Landfill cap installation, including temporary and intermediate capping, installation and all other containment works (including any containment works relating to leachate control).

Fencing and site security works.

Installation of Waste Inspection and Waste Quarantine Areas.

Bunding of fuel and oil storage areas.

Installation of Civic Waste Facility

Installation of Weighbridge

Installation of Wheelwash

Installation of landfill gas management and monitoring systems.

Installation of leachate management, detection, storage, treatment, monitoring and control systems.

Installation of groundwater control and/or monitoring systems.

Surface water controls measures.

Restoration and Aftercare Works.

Nuisance control measures

Any future composting of organic wastes

Any component separation on site

Any other works notified in writing by the Agency.

# SCHEDULE F : Monitoring

Monitoring to be carried out as specified below.

## F.1 Landfill Gas

Landfill gas monitoring locations shall be those as set out in Table F.1.1 and Drawing No. J1.1 Leachate, Landfill Gas, Ground and Surface Water Monitoring Locations received on 15<sup>th</sup> November 1999.

Table F.1.1 Perimeter Monitoring Locations

STATION
A
B
C
D
E
F
G
H
Note 1

Note 1: Other locations agreed with or instructed by the Agency, such as referred to in Condition 9.2

Table F.1.2 Landfill Gas Monitoring Frequency and Technique

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



Monitoring of the landfill gas flare or combustion plant required to be installed under Condition 4.14 shall be carried out as set out in Table F.2.1. Monitoring points to be agreed with the Agency prior to the operation of the plant.

Table F.2.1 Landfill Gas Flare / Combustion Plant Monitoring

Parameter	Monitoring Frequency	Analysis Method <sup>Note1</sup> /Technique <sup>Note2</sup>
Inlet		
Methane (CH <sub>4</sub> ) % v/v	Weekly	Infrared analyser/flame ionisation detector
Carbon dioxide (CO <sub>2</sub> )%v/v	Weekly	Infrared analyser
Oxygen (O <sub>2</sub> ) %v/v	Weekly	Infrared analyser
Outlet		
Volumetric Flow rate	Biannually	Pitot Tube Method
SO <sub>2</sub>	Biannually	Flue gas analyser
NO <sub>x</sub>	Biannually	Flue gas analyser
CO	Continuous <sup>Note 3</sup>	Flue gas analyser
Particulates	Annually	Isokinetic/Gravimetric
TA Luft Class I, II, III organics	Annually	Adsorption/Desorption / GC /GCMS <sup>Note 4</sup>
Hydrochloric acid	Annually	Impinger / Ion Chromatography
Hydrogen fluoride	Annually	Impinger / Ion Chromatography

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

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

**Note 3:** Biannually for flares.

**Note 4:** Test methods should be capable of detecting acetonitrile, dichloromethane, tetrachlorethylene and vinyl chloride as a minimum.

### F.3 Dust

Dust monitoring locations shall be as agreed with or instructed by the Agency, and of the frequency and technique in Table F.3.1.

Table F.3.1 Dust Monitoring Frequency and Technique

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

**Note 1:** Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). 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:** Twice during the period May to September, or as otherwise specified in writing by the Agency. With the agreement of the Agency monitoring can cease once landfill restoration is complete.

## F.4 Noise

Noise monitoring locations shall be those as set out in Table F.4.1 and indicated in Drawing No.J1.2 - Monitoring Locations Surrounding the Site (Noise, Air and Ecology)

Table F.4.1 Noise Monitoring Locations

STATION
N02
N03
N04
N05
Note 1

**Note 1:** Other locations agreed with or instructed by the Agency, such as referred to in Condition 9.4

Table F.4.2 Noise Monitoring Frequency and Technique

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

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

## F.5 Surface Water, Groundwater and Leachate

Surface water monitoring locations shall be those as set out in Table F.5.1 and shown on Drawing No. J1.1 Leachate, Landfill Gas, Ground and Surface Water Monitoring Locations received on 15<sup>th</sup> November 1999, and of the parameters and frequencies outlined in Table F.5.4.

Table F.5.1 Surface Water Monitoring Locations

STATION
SW1
SW2
SW3
SW4
K
R. Lung (upstream) <sup>Note 1</sup>
R. Lung (downstream) <sup>Note 1</sup>

**Note 1:** Locations to be agreed with the Agency within three months of the date of grant of this licence.

Groundwater monitoring locations shall be those as set out in Table F.5.2 and shown on Drawing No. J1.1 Leachate, Landfill Gas, Ground and Surface Water Monitoring Locations received on 15<sup>th</sup> November 1999 and of the parameters and frequencies outlined in Table F.5.4.

Table F.5.2 Groundwater Monitoring Locations

STATION
BH12
BH10
BH11
<b><u>BH u/gradient</u></b> <sup>Note 1</sup>
<b><u>BH d/gradient</u></b> <sup>Note 1</sup>
<b><u>BH d/gradient</u></b> <sup>Note 1</sup>

**Note 1:** Additional monitoring points to be included subject to Condition 9.5

Leachate monitoring locations shall be those as set out in Table F.5.3 and shown on Drawing No. J1.1 Leachate, Landfill Gas, Ground and Surface Water Monitoring Locations received on 15<sup>th</sup> November 1999, and of the parameters and frequencies outlined in Table F.5.4.

Table F.5.3 Leachate Monitoring Locations

LEACHATE LOCATIONS
<b>B</b>
<b>BH4</b>
<b>BH6</b>
<b>D</b>
<b>BH5</b>
<b>F</b>
<b>E</b>
<b>Leachate Lagoon</b> <sup>Note 1</sup>
<b>Note 2</b>

**Note 1:** To be agreed with the Agency.

**Note 2:** Any other location subject to Condition 4.13

Table F.5.4 Water and Leachate - Parameters /Frequency

Parameter <sup>Note 1</sup>	SURFACE WATER	GROUNDWATER	LEACHATE
	Monitoring Frequency	Monitoring Frequency	Monitoring Frequency
Visual Inspection/Odour <sup>Note 2</sup>	Weekly	Quarterly	Quarterly
Groundwater Level	Not Applicable	Monthly	Not Applicable
Leachate Level	Not Applicable	Not Applicable	Weekly <sup>Note 6</sup>
Ammoniacal Nitrogen	Quarterly	Monthly	Quarterly
BOD	Quarterly	Not Applicable	Quarterly
COD	Quarterly	Not Applicable	Quarterly
Chloride	Quarterly	Quarterly	Quarterly
Dissolved Oxygen	Quarterly	Quarterly	Not Applicable
Electrical Conductivity	Quarterly	Monthly	Quarterly
PH	Quarterly	Monthly	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	Annually	Quarterly
Lead	Annually	Annually	Annually
List I/II organic substances <sup>Note 3</sup>	Note 7	Note 7	Note 7
Magnesium	Annually	Annually	Annually
Manganese	Annually	Annually	Annually
Mercury	Annually	Annually	Annually
Potassium	Annually	Quarterly	Quarterly
Sulphate	Annually	Annually	Annually
Sodium	Annually	Quarterly	Quarterly
Total Alkalinity	Annually	Annually	Annually <sup>Note 5</sup>
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
Phenols	Not Applicable	Quarterly	<b>Annually</b>
Faecal Coliforms <sup>Note 4</sup>	<b>Annually</b>	Annually	Annually
Total Coliforms <sup>Note 4</sup>	<b>Annually</b>	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 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). For surface water and leachate samples to be screened once off and thereafter as required by the Agency.

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: Only to be analysed in instances of on-site treatment of leachate subject to Condition 4.13.

Note 6: See also Table F.6.1

Note 7: **Surface Water:** Once off for List I/II organic substances from representative upstream and downstream locations and thereafter as required by the Agency. **Groundwater:** Annually from representative upgradient borehole and two representative downgradient boreholes. **Leachate:** Once off from the leachate lagoon.

## F.6 Surface Water

### F.6.1 Flow Measurement

The monitoring locations and frequency shall be those as set out in Table F.6.1

Table F.6.1 Flow Measurements – frequency sampling and analysis

Parameter	Location	Monitoring Frequency	Analysis Method/Technique
Flow measurements <sup>Note 1</sup>	Location on River Lung to be agreed with the Agency	Continuous <sup>Note 2</sup>	Standard Method <sup>Note 3</sup>

Note 1: Subject to Condition 4.13 and there being on-site treatment.

Note 2: Proposals for continuous flow meter and backup equipment to be agreed with the Agency. No discharge of treated leachate until proposals have been agreed with the Agency and implemented.

Note 3: To be agreed in advance with the Agency.

### F.6.2 River Lung

Monitoring Locations: Locations to be agreed with the Agency.

Table F.6.2 River Lung – Frequency of sampling and analysis

Parameter	Monitoring Frequency	Analysis Method/Technique
<u>Visual Inspection of the river</u>	Weekly	Not Applicable
<u>Biological Assessment</u>	Annually	Appropriate biological methods (such as EPA Q-Rating System to be used for the assessment of rivers and streams)

## F.7 Leachate

The monitoring locations and frequency shall be those as set out in Table F.7.1

Table F.7.1 Leachate Monitoring Locations and Frequency

Monitoring Medium	Parameters	Monitoring Frequency		Monitoring Points
		Operational	Aftercare	
<u>Leachate in boreholes/ Storage lagoon</u>	<u>Leachate levels in cells</u>	Weekly	Monthly	Each borehole location in Table F.5.3
	<u>Leachate level in storage lagoon</u>	Daily visual	Monthly	Level of freeboard in lagoon

Monitoring Medium	Parameters	Monitoring Frequency		Monitoring Points
		Operational	Aftercare	
	<u>Leachate composition as per Table F.5.4</u>	As per Table F.5.4 Note 1	Note 1	<u>Each borehole location in Table F.5.3</u>

Note 1: For permanently capped cells or cells in aftercare phase monitoring shall be at half the frequency specified in Table F.5.4

Table F.7.2 Monitoring of Treated Leachate Discharge – Parameters/Frequency <sup>Note 1</sup>

Parameter	Monitoring Frequency	Analysis Method/Technique <sup>Note 2</sup>
Treated Effluent Flow	Continuous	Flow meter with recorder
pH	Continuous	pH electrode/meter and recorder
Temperature	Continuous	Standard Methods
Chemical Oxygen Demand	Weekly <sup>Note 3,4</sup>	Standard Methods
Carbonaceous Biochemical Oxygen Demand	Weekly <sup>Note 3,4</sup>	Method to be agreed with the Agency <sup>Note 5</sup>
Suspended Solids	Weekly <sup>Note 3,4</sup>	Standard Methods
Total Ammonia (as N)	Weekly <sup>Note 3,4</sup>	Standard Methods
Nitrite/TON (as N)	Weekly <sup>Note 3,4</sup>	Standard Methods
Total Phosphorous	Weekly <sup>Note 3,4</sup>	Standard Methods
Toxicity	Bi-annual	To be agreed with the Agency

Note 1: Subject to Condition 7.7.

Note 2: Or an equivalent method acceptable to the Agency.

Note 3: Samples to be collected on a flow proportional composite sample basis.

Note 4: The frequency, methods and scope of monitoring, sampling and analysis may be amended following evaluation of the test results.

Note 5: Analysis for Carbonaceous BOD shall include the addition of a nitrification inhibitor.

## F.8 Meteorological Monitoring

Table F.8.1 Meteorological Monitoring:  
(Data to be obtained from the Claremorris Station of Met Éireann).

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

## SCHEDULE G : Emission Limits

**G.1 Noise Emissions:** (Measured at the monitoring points indicated in *Table F.4.1*).

Day dB(A) L <sub>Aeq</sub> (30 minutes)	Night dB(A) L <sub>Aeq</sub> (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 monitoring points to be agreed with the Agency).

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

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

**G.4 Surface Water Discharge Limits**<sup>Note 1</sup>: Emission Point to be agreed with the Agency.

**Volume to be emitted:** Max. in any one day: **84 m<sup>3</sup>**  
 Max. rate per second: **0.97 l/s**

**Time of emission:** River flow must be at least equal to the 95%ile flow (**0.5 m<sup>3</sup>/s**) and have greater than **200 dilutions** of effluent at all times

Parameter	Limit (all units mg/l except pH)
pH	6-9
CBOD	25
COD	125
Suspended Solids	35
Total Oxidised N (as N)	15
Total P (as P)	2
Total Ammonia (as N)	10
Toxicity Units	10

Note 1: Subject to proposals for the prior treatment of leachate being agreed with the Agency and the limits set being achieved.

## G.5 Emission Limit Values for Landfill Gas Flare and/or Utilisation Plant

Emission Point reference nos: (to be agreed with the Agency)

Location: Landfill Flarestacks and/or Gas Combustion Plant.

Volume to be emitted: 3000m<sup>3</sup>/hr

Minimum discharge height: 5m

Parameter	Emission Limit Value <sup>Note 1</sup>
Nitrogen oxides as (NO <sub>2</sub> )	500 mg/m <sup>3</sup> for Combustion Plants 150mg/m <sup>3</sup> for Flare Stacks
CO	650 mg/m <sup>3</sup> for Combustion Plants 50mg/m <sup>3</sup> for Flare Stacks
Particulates	130 mg/m <sup>3</sup>
TA Luft Organics Class I <sup>Note 2</sup>	20 mg/m <sup>3</sup> (at mass flows > 0.1 kg/hr)
TA Luft Organics Class II <sup>Note 2</sup>	100 mg/m <sup>3</sup> (at mass flows > 2 kg/hr)
TA Luft Organics Class III <sup>Note 2</sup>	150 mg/m <sup>3</sup> (at mass flows > 3kg/hr)
Hydrogen Chloride	50 mg/m <sup>3</sup> (at mass flows > 0.3 kg/h)
Hydrogen Fluoride	5 mg/m <sup>3</sup> (at mass flows > 0.05 kg/h)

Note 1: Dry gas referenced to 5% oxygen by volume.

Note 2: In addition to the above individual limits, the sum of the concentrations of Class I, II and III shall not exceed the Class III limits.

## SCHEDULE H : Waste Acceptance

Table H.1 Waste Categories and Quantities

WASTE TYPE	MAXIMUM TONNES PER ANNUM
Municipal & Industrial Non-Hazardous Solids	14,100
Treated Sewage sludge	350
Construction and Demolition	550
<b>TOTAL</b>	<b>15,000</b>

Given by the Agency on the 15<sup>th</sup> day of May, 2000

Signed on behalf of the said Agency  
on the 15<sup>th</sup> day of May, 2000

\_\_\_\_\_  
B. Sheehan Authorised Person