



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

WASTE LICENCE PROPOSED DECISION

Waste Licence Register Number:	26-1
Applicant:	Laois County Council
Location of Facility:	Kyletalesha Landfill, Clonsoughy, Kyleclonhobert, Co. Laois.

Table of Contents

	Page No.
REASONS FOR THE DECISION	1
<i>PART I ACTIVITIES LICENSED</i>	1
INTERPRETATION	3
<i>PART II CONDITIONS</i>	6
CONDITION 1 SCOPE	6
CONDITION 2 MANAGEMENT OF THE ACTIVITY	7
CONDITION 3 NOTIFICATION AND RECORD KEEPING	9
CONDITION 4 SITE INFRASTRUCTURE	11
CONDITION 5 WASTE ACCEPTANCE AND HANDLING	15
CONDITION 6 ENVIRONMENTAL NUISANCES	17
CONDITION 7 EMISSIONS AND ENVIRONMENTAL IMPACTS	18
CONDITION 8 RESTORATION AND AFTERCARE	20
CONDITION 9 ENVIRONMENTAL MONITORING	20
CONDITION 10 CONTINGENCY ARRANGEMENTS	21
CONDITION 11 CHARGES AND FINANCIAL PROVISIONS	23
SCHEDULE A : Waste Activities	24
SCHEDULE B : Content of the Environmental Management Programme	25
SCHEDULE C : Content of the Annual Environmental Report	26
SCHEDULE D : Recording and Reporting to the Agency	27
SCHEDULE E : Specified Engineering Works	29
SCHEDULE F : Monitoring	30
SCHEDULE G : Emission Limits	37
SCHEDULE H : Waste Types	38

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 Laois County Council to carry on the waste **activities** listed below at Kyletalesha Landfill subject to eleven 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 as amended by 1998 Regulations

- Class 1:** Deposit on, in or under land (including landfill).
- Class 2:** Land treatment, including biodegradation of liquid or sludge discards in soils.
- Class 4:** Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.
- 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 (including evaporation, drying and calcination).
- 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 a preceding paragraph of in 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 9:* Use of any waste principally as a fuel or other means to generate energy.
- Class 10:* The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system.
- Class 11:* Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.
- Class 12:* Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.
- 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.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
Application	The application by the licensee for this waste licence, 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.
BATNEEC	Best Available Technology Not Entailing Excessive Cost as defined in section 5 (2) of the Act.
Bi-Annual	All or part of a period of six consecutive months.
Biodegradable waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard.
CBOD	5 day Carbonaceous Biochemical Oxygen Demand
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: Emission Limits.
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	Laois County Council, County Hall, Portlaoise, Co. Laois.
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

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: Emission Limits of this licence.
Specified Engineering Works	Those engineering works listed in Schedule E: Specified Engineering Works 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	Monday to Saturday 8.00 to 16.30 and excluding Bank Holidays.
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. 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. 1 Revision A - Ownership and Boundary for Licence received 18/10/99 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 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 **nine 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 **The licensee shall, within three months of the date 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 Within **six months** from the date of grant of this licence, 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 **nine 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 **nine 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 malfunction of any environmental control system;
 - e) any indication that contamination has, or may have, taken place;
 - f) the cessation of waste activities at the facility for a period in excess of 28 days, and their recommencement;
 - g) any occurrence with the potential for environmental pollution; and,
 - h) any other significant incident.

The written record shall include aspects (a) to (e) as described in *Condition 10.7*

- 3.2 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.
- 3.3 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.
- 3.4 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.
- 3.5 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 to this licence.
- 3.6 In the event of any incident which relates to discharges to surface water, the licensee shall notify the Southern 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 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 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 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) 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.
- 3.11 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 (or kgs);
 - 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, the types of waste and the facility to which they were removed.
- 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.

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

Within six 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

4.2.1. 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 of the date of grant of this licence, the licensee shall carry out a review of the security arrangements for the site, as described in Attachment D.1 , and submit to the Agency for its agreement a report to include any improvements considered necessary.

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. The site road(s) shall be provided and maintained at the location shown on Drawing No.8 Rev.B. The road(s) shall be to the following specification;

- i. a hardcore base, 450mm depth of 40mm stone,
- ii. a drainage channel to be provided either side, and
- iii. camber to allow for runoff from the road to the channels.

4.4.2. Within three months of the date of grant of this licence, a proposal for a hardstanding area shall be submitted to the Agency for its agreement.

4.5. The licensee shall provide and maintain an office at the facility, at the location shown on Drawing 8. Rev. B (submitted 18 Oct 1999). 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. Within three months of the date of grant of this licence, proposals for any modification to the Civic Waste Facility (Fig.5 EIS) and proposals for a Waste Inspection Area and Waste Quarantine Area at the locations shown in Drawing No. 8 Rev. B (submitted 18 Oct 1999), shall be submitted to the Agency for its agreement.

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.

4.8. 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 on Drawing No. 8 Rev. B(submitted 18 Oct 1999).

4.9. The hardstanding area, Civic Waste Facility, waste inspection and quarantine areas referred to in Conditions 4.4.2 and 4.7 shall:

- a) be constructed with a hard impervious base graded to a longitudinal cross-sectional fall;
- b) be contained by an impervious bund not less than 100 mm high; and,
- c) drain only to a sump.

4.10. Wheel cleaning unit

4.10.1 Within three months of the date of grant of this licence, a proposal for a wheel cleaning unit at the location shown on Drawing 8. Rev. B (submitted 18 Oct 1999), shall be submitted to the Agency for its agreement.

4.10.2 The wheel cleaning unit shall be inspected on a daily basis and drained as required. Accumulated silt shall be removed and disposed of at the working

face. Any wheel cleaning water shall drain only to the leachate holding tank.

- 4.11. The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 4.12. The licensee shall establish and maintain a septic tank system at the facility for the treatment of sewerage arising on-site. Unless otherwise agreed with the Agency the location of the treatment system shall be as shown on Drawing No. 8 Rev. B (submitted 18 Oct 1999).
- 4.13. Fuel Storage
 - 4.13.1. Within three months of the date of grant of this licence, a proposal for the bunding of the fuel storage area shall be submitted to the Agency for its agreement.
 - 4.13.2. 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.
 - 4.13.3. All drainage from bunded areas shall be diverted for collection and safe disposal.
 - 4.13.4. All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
 - 4.13.5. 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 within twelve months of the date of grant of this licence. 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.
 - 4.13.6. All tanks and containers shall be labelled to clearly indicate their contents.
- 4.14. Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, details for the storage of fridges on site and the procedures for de-gassing of CFC's from these fridges.
- 4.15. Specified Engineering Works
 - 4.15.1. 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 prior to any such works being carried out. No such works shall be carried out without the prior agreement of the Agency.
 - 4.15.2. 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.
 - 4.15.3. 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 validation 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) 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.

4.16. Leachate Management

- 4.16.1. Unless otherwise agreed in advance with the Agency, leachate management at the facility shall be carried out as described in Attachment D.4 and specified in Drawing No. 10 Rev. A of the application and as in Section 2.3.15 of the EIS submitted as part of the Application.
- 4.16.2. Treated leachate that does not meet the limit values set in Schedule G: Emission Limits shall be removed off site and disposed of in an appropriate manner. Arrangements for the off site removal and disposal of the leachate shall be submitted to the Agency for its agreement within three months of the date of grant of this licence.
- 4.16.3. Leachate levels in the waste shall not exceed a level of 1.0 m over the formation levels as shown in Figure D.2.1 of Attachment D.2 of the application.
- 4.16.4. Re-circulation of leachate in Cells 1-5 is prohibited. Unless subject to the prior agreement of the Agency, the licensee shall not recirculate leachate over or into cells 6 – 12 of waste body.
- 4.16.5. Within three months of the date of grant of the licence, the licensee shall submit to the Agency a proposal to include a time frame for implementation to achieve the limit values for treated leachate set in Schedule G: Emission Limits.
- 4.16.6. The frequency of discharge from the lagoon or removal by tanker shall be such that a minimum freeboard of 0.5m shall be maintained in the leachate storage lagoon at all times.
- 4.16.7. No leachate from any other facility shall be treated in the leachate treatment plant.

4.17. Landfill Gas Management:

- 4.17.1. Within six months of the date of grant of this licence, a proposal for the utilisation of landfill gas as an energy resource shall be submitted to the Agency for its agreement.
- 4.17.2. Subject to 4.17.1 above or where usage is not practicable, within nine months of the date of grant of this licence, a proposal for the active collection and flaring

of landfill gas shall be submitted to the Agency for its agreement.

4.17.3. 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.

4.18. Capping

4.18.1. Final capping shall at minimum consist of the following and subject to the agreement of the Agency;

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

Consideration should be given to the inclusion of a flexible membrane liner in the capping system.

4.19. Fire control / Firewater retention

4.19.1 Leachate shall not be used as a means of fire control.

4.19.2 The licensee shall undertake an assessment of fire control and firewater retention provisions at the site. The licensee shall submit a report to the Agency within nine months from the date of grant of this licence for agreement which provides an assessment of fire control in order to satisfy the conditions of this licence.

4.20. Lining System

4.20.1 For cells 6 –12 the landfill liner shall be a composite liner consisting of a basal soil layer of at least 1m in thickness with a permeability of less than 1×10^{-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 and an appropriate leachate collection system shall also be provided.

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

CONDITION 5 WASTE MANAGEMENT

5.1. No asbestos, liquid or hazardous wastes shall be disposed of in the landfill.

5.2. Subject to **Condition 5.1** only those Waste Types and quantities listed in Schedule H: Waste Types shall be disposed of in the landfill unless the prior agreement of the Agency has been obtained.

5.3. **Waste Acceptance shall be carried out in accordance with Attachment E.2 of the application or as otherwise instructed by the Agency.**

- 5.4. A record of all inspections shall be maintained. All other wastes shall be checked at the working face to ensure that they comply with the requirements of the licence. Any 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. Such waste shall be stored in the Waste Quarantine Area only and may be stored for a maximum of twenty-four hours.
- 5.5. The quantity of wastes to be accepted for disposal at the landfill, shall not exceed 38,000 tonnes per annum, unless otherwise agreed in advance with the Agency.
- 5.6. Wastes shall not be deposited in any cell or part of the landfill without the prior agreement of the Agency.
- 5.7. Scavenging shall not be permitted at the facility.
- 5.8. Waste shall only be accepted at the facility between the hours of 8.00 to 16.30 Monday to Saturday and excluding Bank Holidays unless otherwise agreed in advance with the Agency.
- 5.9. 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.
- 5.10. The working face of the operational cell shall, at the end of each day, be covered with material suitable to minimise any nuisances occurring. 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.
- 5.11. Within nine months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement proposals for separation of recyclables from the waste.
- 5.12. Within nine months of the date of grant of this licence, a proposal for the recovery of construction and demolition waste at the facility shall be submitted to the Agency for approval.
- 5.13. All sewage sludge shall be covered immediately with other waste. Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, proposals for the handling of sludge and alternatives for the recovery or disposal of sewage sludge.
- 5.14. Within eighteen months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement proposals for composting of biodegradable or green waste having regard to good practice and sustainability.
- 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 hollow objects and large articles deposited on the site 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. Unless otherwise agreed in advance with the Agency, waste shall be placed in Cells 1 - 5 only, and in the manner as outlined in Attachment Section 2.2 of the EIS submitted as part of the application.
- 5.19. No smoking shall be allowed on the facility (other than in the site office referred to in Condition 4.5).

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. The measures and infrastructure described in Attachment F.3 of the application shall be applied to control litter at the facility.
- 6.4. 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.
- 6.5. 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.
- 6.6. The licensee shall ensure that all waste being delivered to the facility is appropriately covered.
- 6.7. 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.
- 6.8. The licensee shall ensure that the activities shall be carried out in a manner such that dust and odours do not result in significant impairment of, or significant interference with amenities or the environment beyond the facility boundary.
- 6.9. 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: Emission Limits* 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. The following are the 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:
 - a) Methane, greater than or equal to 1.0% v/v; and
 - b) Carbon dioxide, greater than or equal to 1.5% v/v.
- 7.5. **There shall be no direct emissions to groundwater.**
- 7.6. Within six months of the date of grant of the licence the licensee shall submit to the Agency a proposal for the collection and handling of surface water from the hardstanding areas and all cells.
- 7.7. Emissions to Surface Water
 - 7.7.1. Within six months of the date of grant of this licence, the licensee shall submit a report to the Agency for its agreement, on the flow control measures (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 Triogue River (eg. Sonde meter as referred to in Article 14 reply dated 29th June 1999) to ensure accurate readings (including backup equipment i.e. staff gauge). No leachate shall be discharged until this report has been agreed with the Agency.
 - 7.7.2. No untreated leachate shall be discharged to the Triogue River.
 - 7.7.3. Discharge of treated leachate
 - 7.7.3.1 Treated leachate shall only be discharged from the leachate treatment plant at location L8 or such other location agreed with the Agency, when there is a least 140l/s flow and greater than 200 dilutions in the Triogue River.
 - 7.7.3.2 Where the requirements of Condition 7.7.3.1 are not met any treated leachate shall be returned to the leachate storage lagoon or stored in a dedicated leachate storage tanker.
 - 7.7.4. All lagoon structures on-site shall be inspected and certified fit for purpose on an annual basis 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.
 - 7.7.5. 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 its agreement within three months of the date of grant of this licence.

- 7.7.6. No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.
- 7.7.7. The equipment, including backup equipment, specified in Schedule F.6 Effluent Treatment Control of this licence, 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.
- 7.8. Disposal of Leachate (including in the event of breakdown in the operation of the plant)
 - 7.8.1. Unless otherwise agreed in advance with the Agency, leachate stored in the leachate storage lagoon shall be periodically removed from the facility for treatment to a Waste Water Treatment Plant (WWTP). The location of the WWTP to be agreed with the Agency within three months of date of this licence.
- 7.9. Emission limit values for emissions to water in this licence shall be interpreted in the following way:-
 - 7.9.1. For Continuous monitoring:
 - 7.9.1.1. No flow value shall exceed the specified limit.
 - 7.9.1.2. No pH value shall deviate from the specified range.
 - 7.9.2. For Non-Continuous Monitoring:
 - 7.9.2.1. No pH value shall deviate from the specified range.
 - 7.9.2.2. No temperature value shall exceed the limit value.
 - 7.9.2.3. For parameters other than pH, temperature and flow, eight out of ten consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value.
 - 7.9.2.4. For parameters other than pH, temperature, and flow, no grab sample value shall exceed the concentration emission limit value.

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

CONDITION 8 RESTORATION AND AFTERCARE

- 8.1. The Restoration and Aftercare Plans for the facility shall be based on the plan submitted as part of Attachment G.1 of the waste licence application, the final details to be agreed, in advance of any works, with the Agency. The licensee shall update these schemes when required by the Agency and submit amendments to the Agency for its agreement.
- 8.2. Within nine months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement a proposal for the final profile of the facility.
- 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 site 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 details of the permanent gas monitoring system to be installed in the site office.
- 9.3. Within six months of the date of grant of this licence, proposals for the inclusion or consideration of all private wells, within 500m of the facility, in the monitoring programme set out in *Schedule F: Monitoring*.
- 9.4. Within six months from the date of grant of this licence, the licensee shall submit a written proposal on monitoring of leachate levels within the filled waste to the Agency for its agreement. The report shall include a drawing showing all leachate monitoring locations. The drawing shall also contain a unique reference number and a twelve figure national grid reference for each monitoring point.
- 9.5. 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 the surface water in the Tip stream at agreed locations and a re-examination of the assimilative capacity in the stream.
- 9.6. 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.
- 9.7. 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.
- 9.8. 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.

- 9.9. 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.
- 9.10. 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.
- 9.11. 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.
- 9.12. Prior to any development of the undisturbed area, the advice of Dúchas the Heritage Service shall be sought. On completion of such development a report of the results of any archaeological monitoring shall be submitted to Dúchas and copied to 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 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 9.3**) 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. Unless otherwise notified in writing by the Agency, 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) 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 £14,173 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 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 2000, the licensee shall pay a pro rata amount from the date of this licence to 31st 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 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 decommission, 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 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 decommission, restoration and aftercare cost
- ECOST = Existing decommission restoration and aftercare cost
- WPI = Appropriate Wholesale Price Index [Capital Goods, Building & Construction (i.e. Materials & Wages) Index], as published by the Central Statistics Office, for the year since last closure calculation/revision.
- CiCC = Change in compliance costs as a result of change in site conditions, changes in law, regulations, regulatory authority charges, or other significant changes.

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

SCHEDULE A : Waste 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.
Class 2.	Land treatment, including biodegradation of liquid or sludge discards in soils: This activity is limited to the discharging of sludges to land and the re-circulation of leachate in lined cells following Agency approval.
Class 4.	Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons: This activity is limited to the storage of leachate in a lagoon.
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 future phases of cell development.
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 leachate treatment 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 (including evaporation, drying and calcination): This activity is limited to leachate treatment on site.
Class 11.	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule. This activity is limited to the mixing and or compacting of waste.
Class 12.	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule. This activity is limited to the acceptance of baled or compacted waste in future at the landfill.
Class 13.	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced. This activity is limited to the storage of wastes prior to treatment final disposal off site.

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 proposed composting of green waste.
Class 3.	Recycling or reclamation of metals and metal compounds: This activity is limited to the recycling of metals at the Amenity Area.
Class 4.	Recycling or reclamation of other inorganic materials: This activity is limited to the diversion of inert and construction and demolition waste away from the waste stream.
Class 9.	Use of any waste principally as a fuel or other means to generate energy: This activity is limited to the possible future use of landfill gas to generate electrical power.
Class 10.	The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system: This activity is limited to the possible use of composted materials or peat as cover material or in restoration.

Waste Management Act, 1996: Fourth Schedule ^{Note 1}

Class 11.	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule: This activity is limited to the use of inert material as raw materials at the facility.
Class 12.	Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule: This activity is limited to the exchange of waste in the future operation of the site.
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 waste prior to being recycled, re-used or reclaimed.

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.

Waste sent off site for recovery or disposal including details of the contractor and the final destination

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 treated on 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 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.

Communications with interested third parties (if any).

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 ^{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	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.

Note 1: Unless altered at the request of the Agency

Table D.2 Once-off Reports

Report and Contents	Report Submission Date (Number of months within which to submit, from date of granting of licence, unless otherwise specified)
Environmental Management System	
(i) EMS Proposals	12
(ii) Schedule of Objectives and Targets	9
(iii) Environmental Management Programme	9
(iv) Corrective Action	3
(v) Awareness and Training	6
(vi) Management Structure	9
(vii) Communication Programme	9
(viii) Annual Environmental Report	12
Infrastructure	
(i) Review of site security	3
(ii) Proposals for hardstanding areas	3
(iii) Proposals for waste inspection and quarantine area	3
(iv) Proposals for wheel cleaning unit	3
(v) Bunded fuel storage area	3
(vi) Storage and degassing of white goods	6
(vii) Leachate removal off site	3
(viii) Proposal to achieve ELV's in Triogue river	3
(ix) Proposals for landfill gas utilisation	6
(x) Active Landfill Gas Control System: Flare	9
Waste Acceptance Procedures	
(i) Separation of recyclables proposal	9
(ii) Recovery of C & D Waste	9
(iii) Handling and recovery/disposal of sewage sludge	6
(iv) Composting proposals	18
Emission and Environmental Impacts	
(i) Collection and handling of surface water runoff	6
(ii) Proposals for flow control measures at the leachate treatment plant.	6
Restoration and Aftercare	
(i) Proposals for final landfill profile	9
Environmental Monitoring	
(i) A proposal for a permanent gas monitoring system to be installed in the site office.	3
(ii) A proposal to include all private wells within 500m of the facility in the monitoring programme	6
(iii) A proposal for the monitoring of leachate levels within the waste	6
(iv) A proposal for the monitoring of the Tip Stream and the determination of the assimilative capacity	3
(v) Topographical survey	3
Contingency Arrangements	
(i) Emergency Response Procedures	6
(ii) Contingency proposals for alternative supply of water to residents if necessary	If required
Charges & Financial Provisions	
(i) Proposal for Financial Provision	at a date to be set by the Agency

SCHEDULE E :Specified Engineering Works

Specified Engineering Works

Development of Phases of the facility including preparatory works.

Lining system and associated leachate collection and drainage.

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.

Wheel cleaning unit.

Civic Amenity Area.

Bunding of fuel and oil storage areas.

Installation of landfill gas management and monitoring systems.

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

Installation of alternative drinking water supplies if required.

Installation of groundwater control and/or monitoring systems.

Surface water monitoring and management works.

Restoration and Aftercare Works.

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](#) .

Table F.1.1 Perimeter Monitoring Locations

STATION	EASTING	NORTHING
M1	245284	202155
M2	243344	202233
M3	245412	202311
M4	245431	202641
M5	245129	202613
M6	245115	202736
M7	245173	202119
M8	245176	202332
M9	245191	202381

Table F.1.2 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 cell
Atmospheric Pressure	Monthly	Weekly	Standard
Temperature	Monthly	Weekly	Standard

Note1: All monitoring equipment used should be intrinsically safe.

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

F.2 Dust

Dust monitoring locations shall be agreed in advance with the Agency and of the parameters and frequency in Table F.2.1 below.

Table F.2.1 Dust Monitoring Frequency and Technique

Parameter (mg/m ² /day)	Monitoring Frequency	Analysis Method/Technique
Dust	Three times a year ^{Note 2}	Standard Method ^{Note 1}

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

Note 2: Twice during the period May to September, or as otherwise specified in writing by the Agency.

F.3 Noise

Noise monitoring locations shall be those as set out in [Table F.3.1](#) and of the frequency and technique set out in [Table F.3.2](#).

Table F.3.1 Noise Monitoring Locations

STATION	EASTING	NORTHING
N1	245360	202250
N2	245070	202950
N3	245035	202690
N4	245425	202660

Table F.3.2 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

Surface water monitoring locations shall be those as set out in Table F.4.1 and of the parameters and frequency set out in Table F.4.4.

Table F.4.1 Surface Water Monitoring Locations

STATION	EASTING	NORTHING
S1	245444	202715
S2	245488	202588
S3	245573	202485
S4	245207	202057
S7	246216	202046
S8	246286	202034
S9	246298	202085
S10	244949	204191

Groundwater monitoring locations shall be those as set out in Table F.4.2 and of the parameters and frequency set out in Table F.4.4.

Table F.4.2 Groundwater Monitoring Locations

STATION	EASTING	NORTHING
G1	245276	202051
G2	245731	202861
G3	245049	203006
G4	245246	202111
G5	245445	202681
G6	245096	202799
G8	245830	202293

Leachate monitoring locations shall be those as set out in Table F.4.3 and of the parameters and frequency set out in Table F.4.4.

Table F.4.3 Leachate Monitoring Locations

LEACHATE LOCATIONS	EASTING	NORTHING
L1	245251	202252
L2	245349	202481
L3	245224	202576
L4	245302	202656
L5	245402	202611
L6	245274	202695
L7	254166	202618
L8	202641	245455

Table F.4.4 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	Annually
Groundwater Level	Not Applicable	Monthly	Not Applicable
Leachate Level	Not Applicable	Not Applicable	Weekly
Ammoniacal Nitrogen	Quarterly	Monthly	Annually
BOD	Quarterly	Not Applicable	Annually
COD	Quarterly	Not Applicable	Annually
Chloride	Quarterly	Quarterly	Annually
Dissolved Oxygen	Quarterly	Quarterly	Not Applicable
Electrical Conductivity	Quarterly	Monthly	Annually
pH	Quarterly	Monthly	Annually
Total Suspended Solids	Quarterly	Not Applicable	Not Applicable
Temperature	Quarterly	Monthly	Annually
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	Annually
Lead	Annually	Annually	Annually
List I/II organic substances ^{Note 3}	Once off	Annually	Once off
Magnesium	Annually	Annually	Annually
Manganese	Annually	Annually	Annually
Mercury	Annually	Annually	Annually
Potassium	Annually	Quarterly	Annually
Sulphate	Annually	Annually	Annually
Sodium	Annually	Quarterly	Annually
Total Alkalinity	Annually	Annually	Annually ^{Note 5}
Total Phosphorus / orthophosphate	Annually	Annually	Annually
Total Oxidised Nitrogen	Annually	Quarterly	Annually
Total Organic Carbon	Not Applicable	Quarterly	Not Applicable
Residue on evaporation	Not Applicable	Annually	Not Applicable
Zinc	Annually	Annually	Annually
Phenols	Not Applicable	Quarterly	Not Applicable
Faecal Coliforms ^{Note 4}	Not Applicable	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 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.

F.5 Surface Water

F.5.1 Flow Measurement

The monitoring locations and frequency shall be those as set out in Table F.5.1

Table F.5.1 Flow measurements - frequency of sampling and analysis

Parameter	Location	Monitoring Frequency	Analysis Method/Technique
Flow measurements	Location on Triogue River to be agreed with the Agency	Continuous ^{Note 1}	Standard method ^{note 2}
Flow measurements	All other monitoring locations	Quarterly	Standard method ^{Note 2}

Note 1: Proposals for continuous flow meter and backup equipment within three months from the date of grant of this licence. No discharge of treated leachate until proposals have been agreed in writing with the Agency and implemented.

Note 2: To be agreed in advance with the Agency.

F.5.2 Triogue River

Monitoring Locations: to be agreed with the Agency.

The monitoring frequency shall be those as set out in Table F.5.2

Table F.5.2 Triogue River - frequency of sampling and analysis.

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

F.6 Leachate

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

Table F.6.1 Leachate Monitoring Locations and Frequency

Monitoring Medium	Parameters	Frequency		Monitoring Points
		Operational	Aftercare	
Leachate in cells /storage lagoon	Leachate levels in cells	Weekly	Monthly	Note 1
	Leachate level in storage lagoon	Daily Visual	Monthly	Level of freeboard in lagoon
	Leachate composition analysis as per Table F.4.1	As per Table F.4.1 See Note 2	See Note 2	Minimum of one point per cell One point per lagoon

Note 1: Monitoring in each cell at leachate collection point and at least two other points per hectare of cell

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.

Table F.6.2 Monitoring of Treated Leachate Discharge - Parameters /Frequency

Parameter	Monitoring Frequency ^{Note 5}	Analysis Method/Technique ^{Note 1}
Treated Effluent Flow	Continuous	flow meter with recorder
pH	Continuous	pH electrode/meter and recorder
Temperature	Continuous	Standard Methods
Chemical Oxygen Demand	Weekly ^{Note 2,3}	Standard Methods
Carbonaceous Biochemical Oxygen Demand	Weekly ^{Note 2,3}	Method to be agreed with the Agency ^{Note 4}
Suspended Solids	Weekly ^{Note 2,3}	Standard Methods
Total Ammonia (as N)	Weekly ^{Note 2,3}	Standard Methods
Nitrite /TON (as N)	Weekly ^{Note 2,3}	Standard Methods
Total Phosphorus	Weekly ^{Note 2,3}	Standard Methods
Toxicity	Bi-Annual	To be agreed with the Agency

Note 1: Or an equivalent method acceptable to the Agency

Note 2: Samples to be collected on a flow proportional composite sample basis

Note 3: The frequency, methods and scope of monitoring, sampling and analysis may be amended following evaluation of the test results.

Note 4: Analysis for Carbonaceous BOD shall include the addition of a nitrification inhibitor.

Note 5: Frequency may be revised by the Agency on termination of the pilot project.

Table F.6.3 Leachate Treatment Plant Control (See Note 1)

Control parameter	Equipment	Equipment maintenance	Backup Equipment
Flow	Distribution network including pumps, sprinkler system etc.	Daily visual check	Spares held on site

Note 1: The parameters and equipment used for the control of the leachate treatment plant may be amended following evaluation of results.

F.7 Meteorological Monitoring

Table F.7.1 Meteorological Monitoring:

At a location at the facility to be agreed with the Agency. Parameter	Monitoring Frequency	Analysis Method/Technique
Precipitation Volume	Daily	Standard
Temperature (min/max.)	Daily	Standard
Wind Force and Direction	Daily	Standard
Evaporation	Daily	Standard
Evapotranspiration	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.3.1](#)).

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 monitoring points indicated in [Table F.2.1](#)).

Level (mg/m ² /day) ^{Note 1}
350

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

G.4 Leachate Emission Limits: Emission Point Reference No.: L8 (or as agreed with the Agency)

Volume to be emitted: Max.in any one day: 65 m³/day^{Note 2}
 - 85 m³/ day^{Note 1}
 Max.rate per second: 0.75 l/s^{Note 2} – 0.98 l/s^{Note 1}

Time of emission: River flow must be at least equal to the 95%ile flow (140 l/s) and have greater than 200 dilutions of effluent at all times.

Parameter	Limit (all units in mg/l except pH)	
	Note 1	Note 2
pH	6-9	6-9
CBOD	25	200
COD	125	-
Suspended Solids	35	60
Total Oxidised N (as N)	15	-
Total P (as P)	2	4
Total Ammonia (as N)	10	250
Toxicity Units	10	10

Note 1: Limits have to be achieved by 30th June 2001.

Note 2: In the interim the following values apply :

CBOD -100mg/l and cannot increase the background CBOD by greater than 1mg/l.

Total Ammonia - 250mg/l and cannot increase the background level by greater than 0.3 mg/l.

SCHEDULE H : Waste Types

TABLE H.1 WASTE CATEGORIES AND QUANTITIES

WASTE TYPE	MAXIMUM TONNES PER ANNUM
Household	20,000
Commercial	6,500
Sewage Sludge	4,500
Construction and Demolition	4,000
Industrial Non-Hazardous	4,500
OVERALL MAXIMUM TOTAL	38,000

Given by the Agency on the 30th day of December 1999.

Signed on behalf of the said Agency

on the 30th day of December 1999

_____ B. Sheehan Authorised Person