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County Wexford, Ireland

WASTE LICENCE PROPOSED DECISION

Waste Licence	33-1
Register Number:	
Applicant:	Corporation of Drogheda
Location of Facility:	Collon Road, Mell, Drogheda

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Reasons for the Proposed 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 Corporation of Drogheda to carry on the waste activities listed below at Collon Road, Drogheda subject to 11 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 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 10: The treatment of 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 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).
Adequate lighting	20 lux measured at ground level.
Agreed	Agreed in writing.
Agreement	Agreement in writing.
Application	The application by the licensee for this waste licence, including any other material submitted to the Agency in writing by the licensee between the date of the application and the date of grant of this licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
BATNEEC	Best Available Technology Not Entailing Excessive Cost as defined in section 5 (2) of the Act.
Civic Waste Facility	A facility at which waste may be deposited by members of the public. Referred to in the application as a Civic Amenity Facility.
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, soils, sub-soil, stone, rock or other similar natural materials: or other cover materials the use of which has been subject to a proposal made by the licensee for the Agency's agreement.
Daytime	0800 hrs to 2200 hrs.
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emission	As defined in Section 5 (1) of the Act.
Emission Limit Value	Those limits, including concentration limits and deposition levels established in Schedule G.

Environmental Pollution	As defined in Section 5 (1) of the Act.
European Waste Catalogue (EWC)	The EWC is a harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 94/3/EC and any subsequent amendment published in the Official Journal of the European Community.
Facility	That area or areas defined under Condition 1.2
Green waste	Waste wood, plant matter and other vegetation.
Hazardous Waste	As defined in Section 4 (2) of the Act.
Household 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.
Inert Waste	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and / or groundwater.
Landfill	As defined in Section 5 (1) of the Act.
Landfill Directive	Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste
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	Corporation of Drogheda
List I/II Organics	Substances classified pursuant to EC Directives 76/464/EEC and 80/68/EEC
Liquid Waste	Any waste in liquid form and containing less than 20% dry matter
Maintain	Keep in a fit state, including such regular inspection, servicing and repair as may be necessary to adequately perform its function.
Mobile Plant	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.
Monthly	At least 12 times per year, at approximately monthly intervals.

Municipal Waste	Municipal waste as defined in Section 5 (1) of the Act.
Night-time	2200 hrs to 0800 hrs.
Quarterly	A period of three calendar months, the first period of which commences on the date of grant of this licence.
Recovery	As defined in Section 4 (4) of the Act.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
Sludge	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment.
Specified Emissions	Those emissions listed in Schedule G of this licence.
Specified Engineering Works	Those engineering works listed in Schedule E of this licence.
Submit	Unless the context of this licence indicates otherwise, submit to the Agency in writing for agreement.
Trigger Level	A parameter value which when achieved or exceeded requires certain actions to be taken.
Waste	As defined in Section 4(1) of the Act.
Waste disposal activity	Includes the activities referred to in Section 4 of the Act and listed in the Third Schedule thereto.
Waste recovery activity	Includes the activities referred to in Section 4 of the Act and listed in the Fourth Schedule thereto.
Working Day	For the landfill facility Monday to Friday (8.00am to 5.45pm) and Saturdays (9.00am to 1.00pm). For the proposed Civic Waste Facility - Monday to Saturday 8.30am to 6.00pm and Sunday 10.00am to 6.00pm.
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 and required by the licence.
- 1.2. Waste activities shall be restricted to the area of land outlined in red on Drawing No. 4606.02 / B2A "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 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 *twelve 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 *twelve months* from the date of grant of this licence, submit to the Agency for its agreement an Environmental Management Programme (EMP). The EMP shall include a time-scale for achieving the Schedule of Objectives and Targets and shall comply with any other guidance issued by the Agency.

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

2.4 Corrective Action

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

2.5 Awareness and Training

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

2.6 Management Structure

2.6.1 Within six *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 three 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, including slippage; and,
 - h) any emergency.
- 3.2 The written record shall include all aspects described in *Condition 10.8*.
- 3.3 Unless otherwise instructed in writing by the Agency, the licensee shall:
- a) notify the Agency by telephone, and by facsimile if available, as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident; and
 - b) submit the written record required by this condition to the Agency as soon as practicable and in any case within five *working days* after the occurrence of any incident.
- 3.4 Should any further actions be taken after the date of written notification, as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.
- 3.5 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.
- 3.6 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.
- 3.7 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* to this licence.
- 3.8 In the event of any incident which relates to discharges to surface water, the licensee shall notify the Eastern Regional Fisheries Board as soon as practicable by telephone and in writing (by facsimile if available) and in any case not later than 10:00am on the following working day after such an incident.
- 3.9 Unless otherwise agreed in writing with the Agency, all documentation required to be maintained under this licence, shall be retained by the licensee.
- 3.10 Unless otherwise agreed in advance in writing with the Agency, the licensee must give at least fourteen days notice to the Agency of the following events:
- a) the cessation of waste disposal activities at the facility for a period in excess of twenty-eight days;
 - b) the re-commencement of waste disposal activities at the facility following a period of cessation referred to at a) above.
- 3.11 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.
- 3.12 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.
- 3.13 The licensee shall maintain a written record for each load of inert waste arriving at the facility for use in site construction works and landfill restoration. The licensee shall record the following:
- a) the name of the carrier;
 - b) the vehicle registration number;
 - c) the name of the producers (s) / collectors of the waste as appropriate;
 - d) a description of the waste including the associated EWC codes;
 - e) the quantity of waste, recorded in tonnes;
 - f) the names of the person checking the load; and,
 - g) where loads of waste are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed;
- 3.14 The licensee shall assign and clearly label a unique reference code to each container at the Civic Waste Facility. A written record shall be kept for each load of waste departing from the facility. The following shall be recorded:
- a) the start time at which filling of the container commenced;
 - b) the time at which the container was sealed;

- 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 A written record shall be kept of each consignment of leachate removed from the landfill facility, Each 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 leachate was transported;
 - e) any incidents or spillages of leachate during its removal or transportation.

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 prior to the commencement of the licensed activities or as instructed by the Agency.

4.2 Site Notice Board

Within three months of the date of grant of this licence, a Site Notice Board shall be provided and maintained by the licensee on the facility, so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the identification board shall be 1200 mm by 750 mm

4.2.1 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 the grant of the licence, all defects in the existing site gates and fences shall be temporarily rectified to prevent trespassing to the facility. Thereafter, the licensee shall remedy any defect in the gates and / or fencing as follows:
- a) a temporary repair shall be made by the end of the working day; and,
 - b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days or as otherwise agreed in writing with the Agency.
- 4.3.2 Gates shall be locked shut when the facility is unsupervised.
- 4.3.3 Within three months of the date of the grant of this licence, the licensee shall carry out a review of the site security arrangements for the facility and submit to the Agency for its agreement a proposal to include any improvements considered necessary.
- 4.4 Site Roads and Hardstanding
- 4.4.1 The access roads shall be provided and maintained at the location shown on Drawing No. 4606.02/D1 "Site Infrastructure" in Attachment D.1, unless otherwise agreed with the Agency.
- 4.5 Until such time as the Site Control Hut and Office shown in Drawing No. G083-02 Rev B "Civic Amenity Facility Proposed Site Layout" in Attachment D.1 is constructed the licensee shall maintain a site security hut on the facility, at the location shown in Drawing No. 4606.02/D1 "Site Infrastructure" in Attachment D.1.
- 4.6 Within two months of the date of grant of the licence the licensee shall provide and maintain a working telephone and facsimile machine in the site hut specified in *Condition 4.5* above.
- 4.7 Within three months of the date of grant of this licence, a proposal for a Waste Inspection and Quarantine Area 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. The area shall be installed within the timeframe agreed by the Agency.
- 4.8 The licensee shall maintain a weighbridge at the facility. Unless otherwise agreed in writing with the Agency the location of the weighbridge shall be as shown on Drawing No. 4606.02/D1 in Attachment D.1.
- 4.9 The licensee shall establish and maintain a wheelwash at the facility at the location shown on Drawing No. 4606.02/D1 or as otherwise agreed with the Agency. The wheelwash shall be inspected on a daily basis and drained as required. Accumulated silt shall be removed and disposed off at the working face. The wheelwash water shall be either collected and disposed off at a suitable Waste Water Treatment Plant or discharged to the proposed foul sewer shown on Drawing No. G083-06 Rev "A Proposed General Drainage and Gully Layout", 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 Sewage arising on site shall be collected and disposed off to a suitable Waste Water Treatment Plant or discharged to the proposed foul sewer as shown on Drawing No. G083-06 Rev A "Proposed General Drainage and Gully Layout", or as otherwise agreed with the Agency.

4.12 Fuel Storage

- 4.12.1 Within six months of the date of grant of this licence, the licensee shall with the prior written agreement of the Agency provide a bunded fuel storage area at the facility. Unless contained in mobile plant at the facility, fuels shall be stored at the agreed location.
- 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 within six of the date of the grant of the 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.
- 4.12.6 All tanks and containers shall be labelled to clearly indicate their contents.

4.13 Specified Engineering Works

- 4.13.1 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.
- 4.13.2 All specified engineering works shall be supervised by a competent person(s) agreed in writing in advance by the Agency and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 4.13.3 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) 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.

4.14 The licensee shall not recirculate leachate over or onto the waste body.

4.15 Leachate Management and Groundwater Remediation

Within six months of the date of grant of this licence, the licensee shall submit proposals to the Agency for its agreement on installing a leachate management system at the facility including timescales and objectives and targets relating to discharges, and proposals for remedial measures to clean up the existing groundwater contamination. This proposal shall include details on :

- (a) feasibility of installing measures to prevent leachate entering groundwater / quarry lake and proposals to prevent contaminated groundwater migrating off site including locations and specifications for pumping chambers and pumps, leachate collection pipework and storage infrastructure and disposal options for treated leachate;
- (b) proposals for remediation and clean up of the existing groundwater contamination;
- (c) monitoring of leachate within the filled waste and target levels in respect of leachate heads at the base of the landfill;
- (d) environmental monitoring necessary to provide confidence that leachate levels have been reduced in the manner required by this condition and that groundwater remediation and clean up is effective.
- (e) timescales for implementation.

4.16 Landfill Gas Management:

4.16.1 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, or if recovery is not feasible, a proposal for the active collection and flaring of landfill gas.

4.16.2 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. Any gas engine or gas flare required under Condition 4.16.1 shall be placed within the confines of the Civic Waste Facility , or at a position agreed with the Agency.

4.17 Capping

4.17.1 Within three months of the date of grant of the licence the licensee shall ensure that all previously deposited waste is covered by an intermediate cover of at least 300mm.

4.17.2 Within six months of the date of grant of this licence a proposal shall be submitted to the Agency for its agreement for capping the landfill with either a compacted mineral layer of a minimum thickness of 0.6 metres and having a maximum hydraulic gradient of 1×10^{-9} metres per second or by a geosynthetic material which provides equivalent impermeability. The design of the capping shall comply with the recommendations for surface sealing specified in the Landfill Directive (1999/31/EC), or as otherwise agreed with the Agency.

4.18 Civic Waste Facility

- 4.18.1 The licensee shall establish the Civic Waste Facility infrastructure referred to in this licence and in the Attachment D.1 of the application prior to the commencement of the licensed activities at the Civic Waste Facility or as otherwise agreed with the Agency. The hardstanding area shall be (a) constructed with a hard impervious base; (b) be contained by an impervious bund not less than 100mm high; and (c) drain only to sewer.
- 4.18.2 All buildings constructed at the facility shall have regard to the guidance given in the Department of the Environment 1994 publication "Protection of New Buildings and Occupants from Landfill Gas" and any subsequent revisions.
- 4.18.3 The licensee shall provide and maintain the receptacles at the Civic Waste Facility at locations shown in Drawing No. G083-02 Rev B "Civic Amenity Facility Proposed Site Layout" unless otherwise agreed with the Agency. All receptacles shall be clearly labelled to indicate their contents.
- 4.18.4 The landscaping of the proposed Civic Waste Facility shall be as shown in Drawing No. G083-02, Rev B "Civic Amenity Facility Proposed Site Layout" of Attachment D.1, unless otherwise agreed with the Agency.
- 4.18.5 Prior to the operation of the Civic Waste Facility, the licensee shall submit to the Agency for its agreement, details for the storage of any fridges on site and the procedures for de-gassing CFC's from these fridges.
- 4.18.6 The licensee shall submit proposals to the Agency for its agreement on the design and operation of the Composting Facility at least six months before work is to commence on it's construction. Only green waste shall be composted at the facility unless otherwise agreed with the Agency. The quantity of compost and waste held at the composting facility shall not exceed 1000 cubic metres at any one time.
- 4.18.7 Waste oils collected for recovery shall be stored as specified in Condition 4.12.

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

CONDITION 5 WASTE ACCEPTANCE AND HANDLING

- 5.1. Only inert waste for use in site construction works and landfill restoration shall be deposited at the landfill. The amount of inert waste to be recovered at the facility shall not exceed that agreed with the Agency under Condition 8.2.
- 5.2. Within three months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement detailed written procedures for the acceptance of inert waste for use in site construction works and landfill restoration.
- 5.3. A minimum of 1 in 10 waste loads of inert waste shall tip into the Waste Inspection Area for an inspection of the waste unless otherwise agreed in advance with the Agency. A record of all inspections shall be maintained. Any wastes deemed to be in contravention of this licence and/or unsuitable for use in site construction works and landfill restoration 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 forty eight hours.
- 5.4. Scavenging shall not be permitted at the facility.
- 5.5. Inert waste for recovery shall only be accepted at the landfill facility between the hours of 8.00am to 5.45pm Monday to Friday inclusive and 9.00 to 1.00pm on Saturdays unless otherwise agreed in writing in advance with the Agency.
- 5.6. Any cover material at any location within the landfill facility which is eroded, washed off or otherwise removed shall be replaced by the end of the working day.
- 5.7. Deposited waste shall not be excavated, disturbed or otherwise picked over without prior agreement from the Agency.
- 5.8. No smoking shall be allowed on the facility other than in site offices referred to in Condition 4.5.
- 5.9. Civic Waste Facility
 - a) Wastes shall not be deposited at the Civic Waste Facility without the prior agreement of the Agency.
 - b) Only household waste, commercial waste and those recyclable waste types outlined in Attachment D.1 of the application and Schedule H of this licence shall be accepted at the facility unless subject to the prior agreement of the Agency. As outlined in Attachment D.1 the Civic Waste Facility shall only be used by private vehicles. The facility shall not be used as a transfer station for disposal of waste by commercial waste disposal contractors or local authority waste collection vehicles.
 - c) The quantity of waste to be accepted at the Civic Waste Facility shall not exceed 10,000 tonnes per annum unless otherwise agreed with the Agency.
 - d) No hazardous waste (excluding waste oil collected for recovery), asbestos, liquid waste, sludge or offal shall be deposited at the Civic Waste Facility.
 - e) Prior to the commencement of disposal or recovery operations at the Civic Waste Facility the licensee shall submit to the Agency for agreement, written procedures for the acceptance and sorting of waste and supervision of the public tipping area.

- f) All tipping of waste will be either into the hopper of the compactor for disposal or into a receptacle for recovery, or in the case where inspection is required, into a designated inspection area.
- g) All waste accepted at the Civic Waste Facility for disposal shall be compacted within 12 hours unless otherwise agreed in writing with the Agency.
- h) At the end of the working day the floor of the Civic Waste Facility, the hopper and the compactor shall be cleaned of all waste.
- i) Unless subject to the prior written agreement of the Agency, a maximum of 3 enclosed waste containers containing waste for disposal (including sealed containers of compacted waste), shall be stored on the facility overnight. These containers shall be stored at areas clearly designated for the purpose.
- j) The licensee shall operate and maintain the compactor system as detailed in Attachment D.1 of the waste licence application.
- k) Waste sent off-site for recovery / disposal shall only be conveyed to a waste facility agreed in advance by the Agency.
- l) Waste shall only be accepted at the Civic Waste Facility between the hours of 8.30am to 6.00pm Monday to Saturday and Sunday 10.00am to 6.00pm unless otherwise agreed in advance in writing 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 and odours. Written records shall be made of all inspections and any actions taken as a result of these inspections.
- 6.2. The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.
- 6.3. All loose litter accumulated within the facility and its environs shall be removed and appropriately disposed of on a daily basis.
- 6.4. Within three months of the date of grant of this licence the licensee shall carry out a thorough clean up of litter and waste accumulated around the facility and its immediate surrounds. This clean up shall include collecting and properly disposing of (a) any wind blown litter accumulated in adjacent fields and ditches, subject to the agreement of the landowners, (b) litter accumulated around the perimeter of the facility, (c) litter accumulated along Collon and Cement Roads adjoining the facility and (d) the litter and waste accumulated in the quarry lakes. Confirmation that this post closure clean up has been carried out shall be submitted to the Agency within four months of the date of grant of this licence.
- 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 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 flies, vermin, birds, smoke, dust and litter 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. The methods/precautions set out in the application shall as a minimum be carried out to prevent and control any such nuisance and where such methods/precautions are clearly not being effective the licensee shall review the method/precautions used and submit revised details to the Agency. In addition a review of the methods/precautions used shall also be carried out following any complaints received and the outcome of this review shall be incorporated into the summary report submitted to the Agency as part of the Annual Environmental Report.

Reason: *To provide for the control of nuisance.*

CONDITION 7 EMISSIONS AND ENVIRONMENTAL IMPACTS

- 7.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule G: Emissions* of this licence. 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. 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:
 - 7.4.1. Methane, greater than or equal to 1.0% v/v; and
 - 7.4.2. Carbon dioxide, greater than or equal to 1.5% v/v.
- 7.5. There shall be no direct emissions to groundwater.
- 7.6. Discharges to Sewer
 - 7.6.1. Any leachate or other contaminated water removed from the facility, including surface water from the Civic Waste Facility, shall be discharged to sewer or transported to a Wastewater Treatment Plant whose name and location has been agreed in advance by the Agency. Permission for the disposal of leachate at that wastewater treatment plant shall be obtained from the Sanitary Authority

on an annual basis. Disposal procedures for the leachate and surface water shall be in accordance with any written requirements of the Sanitary Authority and with the conditions below.

- 7.6.2. A drawing showing the location and details of the proposed sewer discharge from the Civic Waste Facility and any discharge of leachate from the landfill to sewer shall be submitted to the Agency for agreement prior to its construction.
- 7.6.3. No specified discharge or emission to sewer shall exceed the emission limit value set out in the *Schedule G.4* to this licence, entitled *Emissions to Sewer - Limit Values*. Clarification and amended details of the maximum daily and hourly volume to be discharged to sewer shall be submitted to the Agency for agreement within three months of the date of grant of this licence. There shall be no other discharge or emission to sewer of environmental significance.
- 7.6.4. Monitoring and analysis of each discharge or emission to sewer shall be carried out as specified in the *Schedule F.5* of this licence, entitled *Emission to Sewer - Frequency of Monitoring*.
- 7.6.5. Monitoring and analytical equipment shall be operated and maintained as necessary so that monitoring accurately reflects the discharge or emission.
- 7.6.6. No substance shall be present in such concentration as would constitute a danger to sewer maintenance personnel working in the sewage system, or as would be damaging to the fabric of the sewer, or as would interfere with the biological functioning of a downstream wastewater treatment works.
- 7.6.7. The licensee shall permit authorised persons of the Agency and the Sanitary Authority to inspect, examine and test, at all reasonable times, any works and apparatus installed, in connection with the discharge or emission, and to take samples of the discharge or emission.
- 7.6.8. No discharge or emission to sewer shall take place which gives rise to any reaction within the sewer or to the liberation of by-products which may be of environmental significance.
- 7.6.9. The licensee shall ensure that the discharge shall not contain dissolved methane, petroleum spirits or organic solvents (including chlorinated organic solvents), at concentrations which would give rise to flammable or explosive vapours in the sewer.
- 7.6.10. Non-trade effluent wastewater (e.g. firewater, accidental spillage) which occurs on-site shall not be discharged to the sewer without the prior authorisation of the Sanitary Authority.
- 7.6.11. The licensee shall provide and maintain an inspection chamber in a suitable position in connection with each pipe through which a discharge or emission is being made. Each such inspection chamber or manhole shall be constructed and maintained by the licensee so as to permit the taking of samples of the discharge or emission.
- 7.6.12. The licensee shall install an oil-water interceptor on the surface water drainage system at a point of entry to discharge to the proposed sewer. Prior to the commencement of waste disposal or recovery at the Civic Waste Facility the licensee shall submit to the Agency for its agreement, a drawing detailing the construction and location of the oil-water interceptor. The interceptor shall be inspected weekly, desludged as necessary and properly maintained at all times. A written record shall be kept of the inspections, desludging, cleaning, maintenance and performance of the interceptor.

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

CONDITION 8 RESTORATION AND AFTERCARE

- 8.1. Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement a revised and updated Restoration and Aftercare Plan for the facility. The revised plan shall take into consideration the cessation of disposal activities at the landfill facility. The plan should be based on the plan submitted as part of the application. In preparing the Plan the licensee shall 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"*. A schedule detailing the various stages of restoration, including timescales, shall be included in the Plan.
- 8.2. The Restoration and Aftercare Plan required under Condition 8.1 above shall include for agreement a detailed drawing showing the proposed final profile of the facility and details of the quantities of inert waste and soil to be accepted at the facility for recovery and restoration purposes.
- 8.3. The restoration of the landfill site shall be completed within three years of the date of grant of this licence, unless otherwise agreed with the Agency.
- 8.4. Completed areas of the landfill shall be profiled so that no depressions exist in which water may accumulate. Any depressions arising after profiling shall be rectified by the emplacement of suitable capping or restoration materials.
- 8.5. No material or object that is incompatible with the proposed restoration of the site shall be present within one metre of the final soil surface levels.
- 8.6. The restoration scheme required under Condition 8.1 above shall include measures to prevent flooding of the Cement and Collon Roads from surface water runoff from the landfill.

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. Any new private or group scheme wells or disused wells, downgradient as far as the River Boyne, and within 250m upgradient of the facility, shall be included in the monitoring programme set out in *Schedule F*, subject to the agreement of the well owners. A drawing showing the location of any wells included in the monitoring programme shall be submitted to the Agency prior to commencing monitoring.
- 9.4. The licensee shall within three months of the grant of this licence submit a proposal for an investigation into the extent of the groundwater contamination in the vicinity of the facility, in so far as it relates to the facility, to the Agency for its agreement. The proposal shall include investigations to assess the extent of karst features in the

limestone around the facility and the extent of migration of contaminated groundwater off site via these karst features.

- 9.5. 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.
- 9.6. 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.
- 9.7. 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.
- 9.8. Unless otherwise agreed in writing with the Agency, a written record shall be kept of the names, qualifications and a summary of relevant experience of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.
- 9.9. 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 the representative sampling and monitoring of emissions from the facility.
- 9.10. Unless otherwise agreed in advance with the Agency, monitoring infrastructure which proves to be unsuitable for its purpose shall be replaced within one month of monitoring results indicate that the monitoring infrastructure is damaged or unsuitable.
- 9.11. An annual assessment of the ecology of the Quarry Lake and adjoining habitats shall be undertaken 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 on an annual basis prior to the assessment.
- 9.12. 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.
- 9.13. Within six months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement, a review of the existing landfill gas monitoring in order to determine whether the existing monitoring measures and mitigation measures are sufficient to detect and deal with any potential increase in migration following the placement of the capping layer.

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

CONDITION 10 CONTINGENCY ARRANGEMENTS

- 10.1. The licensee shall, within six months of the date of grant of this licence, submit a written emergency response procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment.

- 10.2. Contingency Arrangements for the facility shall be as detailed in Attachment K.1 "Contingency Arrangements" of the waste licence application.
- 10.3. Slope Stability Monitoring shall be carried out as detailed in Attachment K "Slope Stability Assessment & Contingency Plan for Landslip", or otherwise as agreed with the Agency.
- 10.4. 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.
- 10.5. 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.
- 10.6. 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. A proposal to extinguish and deal with any underground fires shall be submitted to the Agency for its agreement within one month of the date of grant of this licence.
- 10.7. In the event that monitoring of local wells (identified in *Condition 9*) indicates that the facility is having a significant adverse effect on the quantity and/or quality of the water supply this shall be treated as an incident. The licensee shall submit to the Agency for its agreement and within a time specified in writing by the Agency, written proposals for the provision of an alternative supply of water to those affected.
- 10.8. Unless otherwise notified in writing by the Agency, in the case of repeat incidents, 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:

- identify and put in place measures to avoid reoccurrence of the incident, and;
- 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 £12,350 or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Act, 1996. The licensee shall in 2000 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Consumer Price Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 1999, the licensee shall pay a pro rata amount from the date of this licence to 31st December 1999. This amount shall be paid to the Agency within *one month* of the date of grant of this licence.
- 11.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased due to an incident occurring on or adjacent to the facility and associated with the facility, the licensee shall contribute such sums as determined by the Agency to defraying its costs.

11.2 Financial Provision for Closure, Restoration and Aftercare

- 11.2.1 The licensee shall from a date to be set by the Agency establish and maintain a fund, or other form of approved security, that is adequate to assure the Agency that the licensee is at all times financially capable of implementing the Decommissioning and Aftercare Plan required by Condition 8.1. The type of fund and means of its release/recovery shall be agreed in writing by the Agency prior to its establishment.
- 11.2.2 The fund shall be maintained in an amount always sufficient to underwrite the current Decommissioning 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 13.	<p>Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned was produced.</p> <p>This activity is limited to the temporary storage of waste at the proposed Civic Waste Facility in containers prior to disposal at an alternative appropriate facility.</p>

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.	<p>Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes):</p> <p>This activity is limited to composting of green waste and the recovery of recyclable organic materials including waste oils, paper and cardboard deposited at the proposed Civic Waste Facility.</p>
Class 3.	<p>Recycling or reclamation of metals and metal compounds:</p> <p>This activity is limited to the collection of metals at the proposed Civic Waste Facility.</p>
Class 4.	<p>Recycling or reclamation of other inorganic materials:</p> <p>This activity is limited to the collection of glass at the proposed Civic Waste Facility and the recovery and reuse of inert waste for landfill restoration and construction works.</p>
Class 10	<p>The treatment of waste on land with a consequential benefit for an agriculture activity or ecological system.</p> <p>This activity is limited to the composting of green waste and the use of such compost for landfill restoration purposes.</p>
Class 11	<p>Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule :</p> <p>This activity is limited to the use compost for landfill restoration purposes.</p>
Class 13.	<p>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:</p> <p>This activity is limited to the temporary storage of recyclable and reusable waste pending their collection.</p>

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

SCHEDULE B :Content of the Environmental Management Programme

Environmental Management Programme

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

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

Designation of Responsibility for Achieving Targets and Objectives

Other items specified by the Agency

SCHEDULE C :Content of the Annual Environmental Report

Annual Environmental Report Content ^{NOTE 1}

Reporting Period.

Waste activities carried out at the facility.

Quantity and Composition of waste received, disposed of and recovered during the reporting period and each previous year.

Methods of deposition of waste.

Summary report on emissions.

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

Resource and energy consumption summary.

Proposed development of the site and timescale of such development.

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

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

Report on restoration.

Report on the annual ecological assessment.

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

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

Estimated annual and cumulative quantity of indirect emissions to groundwater.

Monthly water balance calculation and interpretation.

Meteorological Report.

Schedule of Environmental Objectives and Targets for the forthcoming year.

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

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

Tank, pipeline and bund testing and inspection report.

Reported incidents and Complaints summaries.

Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.

Annual budget and site running costs.

Any other items specified by the Agency.

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

SCHEDULE D :Recording and Reporting to the Agency

Table D.1 Recurring Reports

Report	Reporting Frequency Note1	Report Submission Date
Environmental Management System Updates	Annually	One month after the end of the year reported on.
Annual Environment Report (AER)	Annually	Twelve months from the date of grant of licence and one month after the end of each year thereafter.
Record of incidents	As they occur	Within five days of the incident.
Bund, tank and container integrity assessment	Every three years	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.
Monitoring of Sewer Discharges	Quarterly	Ten days after end of the quarter being reported on.
Dust Monitoring	Three times a year	Ten days after the period being reported on.
Meteorological Monitoring	Annually	One month after end of the year being reported on.
Noise Monitoring	Annually	One month after end of the year being reported on.
Proposal for Ecological Assessment and subsequent Report	Annually	One month after end of the year being reported on.
Slope Stability 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	Condition Number	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	2.1	12
(ii) Schedule of Objectives and Targets	2.2	12
(iii) Environmental Management Programme	2.3	12
(iv) Management Structure	2.6	6
(v) Communication Programme	2.7	3
Infrastructure		
(i) Proposal for site security and fencing	4.3.3	3
(ii) Proposal for waste inspection and quarantine area	4.7	3
(iii) Bunded fuel storage area	4.12	6
(iv) Proposal for leachate management and groundwater remediation	4.15	6
(v) Proposal for landfill gas utilisation or flaring	4.16.1	6
(vi) Capping	4.17.2	6
(vii) Proposal for storage and degassing of fridges	4.18.5	Prior to operation of the Civic Waste Facility
(viii) Proposal for the Composting Facility	4.18.6	Prior to operation of the Composting Facility
Waste Acceptance Procedures		
(i) Procedures for acceptance of inert waste for use in site construction and landfill restoration	5.2	3
(ii) Procedures for acceptance of waste and supervision at the Civic Waste Facility	5.9 (e)	Prior to operation of the Civic Amenity Facility
Environmental Nuisances		
(i) Confirmation of post closure clean up of the landfill and surrounding area	6.4	4
Emissions and Environmental Impacts		
(i) Volumes to be discharged to sewer	7.7.3	3
(ii) Construction details and location of Oil Interceptor	7.7.12	Prior to operation of the Civic Waste Facility
Restoration and Aftercare		
(i) Proposal for restoration and aftercare plan	8.1	6
(ii) Proposed final profile and quantities of inert waste required for restoration	8.2	6
Environmental Monitoring		
(i) A proposal for a permanent gas monitoring system to be installed in the site office	9.2	3
(ii) A drawing showing the location, if any, of private wells included in the monitoring programme	9.3	As required
(iii) Groundwater investigation	9.4	3
(iv) Review of landfill gas migration and monitoring	9.13	6
(v) Grid References and Location of Additional Monitoring Points	Schedule F	3

continued

Table D.2 continued

Contingency Arrangements			
(i)	Emergency Response Procedures	10.1	6
(ii)	Proposal to deal with underground fires	10.6	1
(iii)	Contingency proposals for alternative supply of water to residents if necessary	10.7	If required
Charges & Financial Provisions			
(i)	Proposal for Financial Provision	11.2	if required

SCHEDULE E :Specified Engineering Works

Specified Engineering Works

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.

Bunding of fuel and oil storage areas.

Construction of Civic Waste Facility.

Construction of waste inspection / quarantine area.

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.

Installation of groundwater control, remediation and/or monitoring systems.

Surface water 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 below and as shown on Drawing No. 4606.02/J1 "Location of Monitoring Points".

Table F.1.1 Monitoring Locations

STATION	EASTING	NORTHING
LG1	306 882	276 419
LG2	306 894	276 346
LG3	306 928	276 306
LG4	306 959	276 262
LG5	306 988	276 228
LG6	307 568	276 286
L1 to L5	refer to Table F.4.3	refer to Table F.4.3
BH1 to BH11	refer to Table F.4.2	refer to Table F.4.2
Site Office		

Table F.1.2 Landfill Gas Monitoring Frequency and Technique

Parameter	Monitoring Frequency		Analysis Method ^{Note1} /Technique ^{Note2}
	Gas Boreholes/ Vents/Wells ^{Note 3}	Site Office	
Methane (CH₄) % v/v	Monthly	Weekly	Infrared analyser/flame ionisation detector
Carbon dioxide (CO₂)%v/v	Monthly	Weekly	Infrared analyser/ flame ionisation detector
Oxygen(O₂) %v/v	Monthly	Weekly	Electrochemical
Atmospheric Pressure	Monthly	Weekly	Standard
Temperature	Monthly	Weekly	Standard
Minor landfill gas constituents	Note 4	Not Applicable	Note 4

Note1: All monitoring equipment used should be intrinsically safe. Perimeter boreholes shall be monitored by use of flame ionisation detector.

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

Note 3 : Boreholes numbered BH3, BH5, BH6, BH7, BH8 and BH9 need only be monitored quarterly for CH₄, CO₂, O₂ and Atmospheric Pressure.

Note 4 : Boreholes LG1 to LG5 need only be monitored. Sampling to be carried out once for trace landfill gas constituents (e.g. hydrogen sulphide, VOC's (non methane hydrocarbons), mercaptans, aliphatic acids etc.) as required by the Agency and thereafter as required by the Agency.

F.2 Dust

Dust monitoring locations shall be those as set out in Table F.2.1 below and where relevant as shown on Drawing No. 4606.02/J1 "Location of Monitoring Points".

Table F.2.1 Dust Monitoring Locations

STATION	EASTING	NORTHING
DG1	Note1	Note1
DG2	307 112	276 142
DG3	Note1	Note1
DG4	Note1	Note1

Note1: Monitoring points DG1, DG3 and DG4 must be positioned at the boundary of the facility to allow for representative monitoring of dust emissions to the Cement and Collon Roads. Locations and grid references to be agreed with the Agency within three months.

Table F.2.2 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. With the agreement of the Agency monitoring can cease once landfill restoration is complete.

F.3 Noise

Noise monitoring locations shall be those as set out in Figure 2 of Attachment C.8 of the application and Table F.3.1 below.

Table F.3.1 Noise Monitoring Locations

STATION CODE	LOCATION
1	Residence on Collon Road
2	Residence on Collon Road
3	Halting Site

Note 1: Grid reference to be submitted to the Agency within three months.

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 below and as shown on Drawing No. 4606.02/J1 "Location of Monitoring Points" of the application.

Table F.4.1 Surface Water Monitoring Locations

STATION	EASTING	NORTHING
SW1	307 216	276 300
SW2	307 466	276 500
SW3	307 440	275 940

Groundwater monitoring locations shall be those as set out in Table F.4.2 below and as shown on Drawing No. 4606.02/J1 "Location of Monitoring Points" of the application.

Table F.4.2 Groundwater Monitoring Locations

STATION	EASTING	NORTHING
BH1	306 807	276 468
BH2	306 938	276 492
BH3	307 104	276 900
BH4	307 460	276 564
BH5	307 176	276 606
BH6	307 198	275 954
BH7	307 372	276 382
BH8	307 350	275 900
BH9	307 472	275 900
BH10	307 582	276 120
BH11	307 518	276 159
Private Wells as required by Condition 9.3	Note 1	Note 1

Note 1: Correct grid references to be submitted to the Agency within three months.

Leachate monitoring locations shall be those as set out in Table F.4.3 below and as shown on Drawing No. 4606.02/J1 "Location of Monitoring Points" of the application.

Table F.4.3 Leachate Monitoring Locations

LEACHATE INSPECTION MANHOLES	EASTING	NORTHING
L1	306 100	276 296
L2	306 430	276 384
L3	306 212	276 426
L4	306 358	276 332
L5	306 442	276 280

Table F.4.4 Water and Leachate - Parameters /Frequency

Parameter ^{Note 1}	SURFACE WATER Monitoring Frequency	GROUNDWATER Boreholes BH1, BH4, BH6, BH9, BH10, BH11 Monitoring Frequency	GROUNDWATER Boreholes BH2, BH3, BH5, BH7, BH8 Monitoring Frequency	LEACHATE L3, L4 Monitoring Frequency
Visual Inspection/Odour ^{Note 2}	Weekly	Monthly	Quarterly	Annually
Groundwater Level	Not Applicable	Monthly	Monthly	Not Applicable
Leachate Level	Not Applicable	Not Applicable	Not Applicable	Weekly (for all boreholes L1 to L5)
Ammoniacal Nitrogen	Quarterly	Monthly	Monthly	Annually
BOD	Quarterly	Not Applicable	Not Applicable	Annually
COD	Quarterly	Not Applicable	Not Applicable	Annually
Chloride	Quarterly	Monthly	Quarterly	Annually
Dissolved Oxygen	Quarterly	Quarterly	Quarterly	Not Applicable
Electrical Conductivity	Quarterly	Monthly	Monthly	Annually
pH	Quarterly	Monthly	Monthly	Annually
Total Suspended Solids	Quarterly	Not Applicable	Not Applicable	Annually
Temperature	Quarterly	Monthly	Monthly	Annually
Boron	Not Applicable	Annually	Annually	Annually
Cadmium	Quarterly	Monthly	Quarterly	Annually
Calcium	Annually	Annually	Annually	Annually
Chromium (Total)	Quarterly	Monthly	Quarterly	Annually
Copper	Annually	Annually	Annually	Annually
Cyanide (Total)	Not Applicable	Annually	Annually	Annually
Fluoride	Not Applicable	Annually	Annually	Annually
Iron	Quarterly	Monthly	Quarterly	Annually
Lead	Quarterly	Monthly	Quarterly	Annually
List I/II organic substances ^{Note 3}	Note 4	Biannually from BH10, Annually from other boreholes	Not Applicable	Note 5
Magnesium	Annually	Annually	Annually	Annually
Manganese	Annually	Monthly	Quarterly	Annually
Mercury	Annually	Annually	Annually	Annually
Potassium	Quarterly	Monthly	Quarterly	Annually
Sulphate	Annually	Annually	Annually	Annually
Sodium	Annually	Monthly	Quarterly	Annually
Total Alkalinity	Annually	Annually	Annually	Annually ^{Note 6}
Total Phosphorus / orthophosphate	Quarterly	Annually	Annually	Annually
Total Oxidised Nitrogen	Annually	Quarterly	Quarterly	Annually
Total Organic Carbon	Not Applicable	Quarterly	Quarterly	Not Applicable

Parameter ^{Note 1}	SURFACE WATER Monitoring Frequency	GROUNDWATER Boreholes BH1, BH4, BH6, BH9, BH10, BH11 Monitoring Frequency	GROUNDWATER Boreholes BH2, BH3, BH5, BH7, BH8 Monitoring Frequency	LEACHATE L3, L4 Monitoring Frequency
Residue on evaporation	Not Applicable	Annually	Annually	Not Applicable
Zinc	Annually	Monthly	Annually	Annually
Barium	Quarterly	Monthly	Quarterly	Annually
Nickel	Quarterly	Monthly	Quarterly	Annually
Nitrate	Quarterly	Monthly	Quarterly	Annually
Nitrite	Quarterly	Monthly	Quarterly	Annually
Phenol	Quarterly	Monthly	Quarterly	Annually
Faecal Coliforms ^{Note 7}	Not Applicable	Annually	Annually	Annually
Total Coliforms ^{Note 7}	Not Applicable	Annually	Annually	Annually

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

Note 2: Where there is evident gross contamination by leachate, additional samples should be analysed.

Note 3: Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list I/II Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include: volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (US Environmental Protection Agency method 525 or equivalent, and pesticides (US Environmental Protection Agency method 608 or equivalent).

Note 4: Only SW1 needs to be monitored for List I/II organic substances.

Note 5: Once off for List I/II organic substances and thereafter as required by the Agency.

Note 6: Only to be analysed in instances of on-site treatment of leachate.

Note 7: 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

F.5 Emissions to Sewer - Frequency of Monitoring (upon sewer completion)

The frequency and method of sampling and analysis are listed in the following table:

Monitoring Locations : (1) Civic Waste Facility

(2) Closed Landfill Facility

Table F.5.1 : Emissions to Sewer Monitoring ^{Note 1}

Parameter	Monitoring Frequency	Analysis Method/Technique
Flow to sewer	Monthly	See Note 2
BOD	Monthly	Electrometry / Titrimetry with nitrification inhibitor
COD	Monthly	Digestion, Colorimetry / Titrimetry
Ammoniacal Nitrogen (NH ₄ -N)	Monthly	ISE / Colorimetry
Suspended Solids	Monthly	Gravimetry
Sulphates (as SO ₄)	Monthly	Ion Chromatography / Turbidimetric / Colorimetry
Temperature	Monthly	Thermometry
pH	Monthly	Electrometry
Visual Inspection	Monthly	Not applicable

Note 1. A drawing showing sewer monitoring point locations and grid references to be supplied prior to any discharge to sewer.

Note 2. Foul water discharge to be calculated and monitored weekly

F.6 Meteorological Monitoring

Table F.6.1 Meteorological Monitoring:

Data to be obtained from a location 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 Emissions to Sewer - Limit Values

Table G.4.1 Volume to be emitted:

Location	Volume to be emitted ^{Note 1}
(1) Civic Waste Facility	Maximum in any one day : 6500 m ³ Maximum rate per hour : 270 m ³
(2) Closed Landfill Facility	Maximum in any one day : 30 m ³ Maximum rate per hour : 5 m ³

Note 1 : Subject to amendment and agreement under Condition 7.7.3.

Table G.4.2 Emission limit values for emissions to sewer

Parameter	Emission limit value (Grab sample mg/l)	Emission limit value (Grab sample mg/l)
	(1) Civic Waste Facility	(2) Closed Landfill Facility
BOD₅	335	1770
COD	450	8000
Ammoniacal Nitrogen NH₄-N	35	2040
Suspended Solids	294	1500
Sulphates (as SO₄)	240	322
pH	6 - 9	6 - 9
Temperature	32°C	32°C

SCHEDULE H :Wastes for Disposal or Recovery

Waste Materials	On-Site Reuse ^{Note1}	Method of Disposal/Recovery ^{Note 2}
Compacted household and commercial waste in sealed containers at the Civic Waste Facility	None	Agreed waste recovery/disposal contractor.
Recyclable or reusable waste deposited at the Civic Waste Facility of the following waste types : paper, cardboard, glass, textiles, plastics and metals.	None	Agreed waste recovery/disposal contractor.
Waste oil collected at the Civic Waste Facility	None	Agreed hazardous waste recovery/disposal contractor.
Green Waste	Composting	Use in landfill restoration.
Inert Waste	Site construction and landfill restoration	Use in landfill restoration.
Other ^{Note 3}		

Note 1: The licensee may treat, reuse, recycle or recover waste subject to the prior written agreement of the Agency.

Note 2: All contractors must be agreed with the Agency in advance. In cases where a previously agreed waste contractor is considered by the Agency not to exercise due care in respect of the transport and disposal of the licensees waste, the Agency may at any time instruct a licensee to stop using this contractor.

Note 3: No other waste shall be disposed of/recovered off-site or on site without prior notice to, and prior written agreement of the Agency.



Part III - Activities Refused

In pursuance of the powers conferred on it by the Waste Management Act 1996, the Environmental Protection Agency (the Agency) proposes, under Section 40 to refuse the following classes of activities.

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

Class 1 : Deposit on, in or under land (including landfill)

REASON:

- (i) The Agency is not satisfied that : (a) emissions from the activity would not result in contravention of relevant environmental standards and (b) the activity, as proposed, would not cause environmental pollution.
- (ii) The location of the activity on an extremely vulnerable regionally important aquifer.



Given by the Agency on the 29th day of September 1999.

Signed on behalf of the said Agency _____
on the 29th day of September, 1999 B Sheehan **Authorised Person**