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P.O. Box 3000,  
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County Wexford, Ireland

WASTE LICENCE  
LANDFILL FOR INERT WASTE

<b>Waste Licence</b>	141-1
<b>Register Number:</b>	
<b>Licensee:</b>	Cork Corporation
<b>Location of Facility:</b>	Beaumont Quarry Churchyard Lane Ballintemple/Ballinlough Cork

# INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

Beaumont Quarry is a disused limestone quarry located between the residential areas of Ballintemple and Ballinlough in Cork City. The Licensee, Cork Corporation, intends to turn the site into a landscaped amenity park. The area covers approximately 3.5ha and is zoned for "Public Open Space" in the Cork City Development Plan Review (1998). The quarry is bounded on three sides by vertical or near vertical rock faces. The Beaumont Caves are located to the east of the site and extend in a southerly direction away from the area to be landfilled.

It is proposed that the quarry will be filled with inert excavated soil material subject to strict waste acceptance criteria. It is estimated that the landfilling will be completed within 3 years.

Surface water runoff will drain or be pumped to a stormwater settling pond with an overflow to an existing combined sewer.

Each cell will be permanently capped and grassed to a specification appropriate for inert waste. The facility will be restored to a terraced amenity park with landscaped gardens and exposed rock faces.

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# DECISION & REASONS FOR THE DECISION

The Environmental Protection Agency (the Agency) is satisfied, on the basis of the information available, that the waste activity, or activities, licensed hereunder will comply with 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, the objection from the applicant and the reports of its inspectors.

## *Part I Activities Licensed*

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Agency, under Section 40(1) of the said Act hereby grants this Waste Licence to Cork Corporation to carry on the waste activity listed below at Beaumont Quarry, Churchyard Lane, Ballintemple/Ballinlough, Cork, subject to twelve conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Act 1996

<b>Class 1.</b>	<b>Deposit on, in or under land (including landfill):</b> This activity is limited to the deposit of inert soils and subsoils.
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# INTERPRETATION

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Act, (the Act), unless otherwise defined in this section.

<b>Aerosol</b>	A suspension of solid or liquid particles in a gaseous medium.
<b>Adequate lighting</b>	20 lux measured at ground level.
<b>Agreement</b>	Agreement in writing.
<b>Annually</b>	At approximately twelve monthly intervals.
<b>Attachment</b>	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
<b>Application</b>	The application by the licensee for this waste licence.
<b>Appropriate facility</b>	A waste management facility, duly authorised under relevant law and technically suitable.
<b>Condition</b>	A condition of this licence.
<b>Construction and Demolition Waste</b>	All wastes which arise from construction, renovation and demolition activities.
<b>Containment boom</b>	A boom which can contain spillages and prevent them from entering drains or watercourses.
<b>Cover material</b>	Bricks, crushed concrete, tarmac, earth, soil, sub-soil, stone, rock or other similar natural materials; or other cover material the use of which has been agreed with the Agency.
<b>Daily Cover</b>	The term used to describe material spread (about 150mm if soil cover is used) over deposited waste at the end of each day. Synthetic materials may also be used. Its objective is to minimise odour, the amount of litter generated and to control flies and access to the waste by birds and vermin. Where soils are used for daily cover, it is recommended that they be removed at the start of the day and subsequently reused as much as possible
<b>Daytime</b>	8.00 a.m. to 10.00 p.m.
<b>Documentation</b>	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
<b>Drawing</b>	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
<b>Emission Limits</b>	Those limits, including concentration limits and deposition levels established in <i>Schedule C: Emission Limits</i> , of this licence.
<b>European Waste Catalogue (EWC)</b>	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 94/3/EC and any subsequent amendment published in the Official Journal of the European Community.

<b>Hours of Operation</b>	8am to 6pm Monday to Friday.
<b>Hours of Waste Acceptance</b>	8am to 5.30pm Monday to Friday.
<b>Inert waste</b>	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.
<b>Landfill</b>	Refers to the area of the facility where the waste is disposed of by placement on the ground or on other waste.
<b>Licence</b>	A Waste Licence issued in accordance with the Act.
<b>Licensee</b>	Cork Corporation
<b>List I/II Organics</b>	Substances classified pursuant to EC Directives 76/464/EEC and 80/68/EEC.
<b>Liquid Waste</b>	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
<b>Maintain</b>	Keep in a fit state, including such regular inspection, servicing and repair as may be necessary to adequately perform its function.
<b>Mobile Plant</b>	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.
<b>Monthly</b>	A minimum of 12 times per year, at approximately monthly intervals.
<b>Night-time</b>	10.00 p.m. to 8.00 a.m.
<b>Quarterly</b>	At approximately three monthly intervals.
<b>Sample(s)</b>	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
<b>SCADA system</b>	Supervisory Control and Data Acquisition system
<b>Specified Emissions</b>	Those emissions listed in <i>Schedule C: Emission Limits</i> of this licence.
<b>Specified Engineering Works</b>	Those engineering works listed in <i>Schedule B: Specified Engineering Works</i> of this licence.
<b>Treatment</b>	Treatment means physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.
<b>Trigger Level</b>	A parameter value specified in the licence, the achievement or exceedance of which requires certain actions to be taken by the licensee.
<b>EPA Working Day</b>	9.00 a.m. to 5.30 p.m. Monday to Friday inclusive.
<b>Working Face</b>	The area of the site in which waste other than cover material or material for the purposes of the construction of specified engineering works is being

deposited.

## ***PART II CONDITIONS***

### **CONDITION 1 SCOPE OF THE LICENCE**

- 1.1. Waste activities at the facility shall be restricted to those listed and described in Part I: Activities Licensed and authorised by this licence.
- 1.2. For the purposes of this licence, the facility is the area of land outlined in red on Drawing No. 2000-01101-02 entitled 1:1000 Site Ownership Plan of the application. Any reference in this licence to “facility” shall mean the area thus outlined in red.
- 1.3. This licence is for the purposes of waste licensing under the Waste Management Act 1996 only and nothing in this licence shall be construed as negating the licensee’s statutory obligations or requirements under any other enactments or regulations.
- 1.4. Treatment of Inert Waste
  - 1.4.1. Inert Waste may be disposed of at the facility subject to the maximum quantities and other constraints listed in *Schedule A: Waste Acceptance*, of this licence.
  - 1.4.2. The licensee shall ensure that inert waste accepted at the facility is subject to treatment where technically feasible.
- 1.5. No non-hazardous, hazardous or liquid wastes shall be disposed of at the facility
- 1.6. Waste Acceptance Hours and Hours of Operation
  - 1.6.1. Landfill
    - 1.6.1.1. Unless otherwise agreed with the Agency, waste shall only be accepted at the facility for disposal at the landfill between the hours of 8am and 5.30pm Monday to Friday inclusive.
    - 1.6.1.2. Unless otherwise agreed with the Agency, the facility shall only be operated during the hours of 8am and 6pm Monday to Friday inclusive. Any operation at the facility outside of normal working hours or on a Saturday or Sunday shall be notified to the Agency by 10:00 on the morning of the next working day. The notification shall detail the operations carried out, the reason for carrying them out and the hours during which they were carried out.
    - 1.6.1.3. Waste shall not be accepted at the facility on Bank Holidays.
- 1.7. The following shall constitute an incident for the purposes of this licence:
  - a) an emergency;
  - b) any emission which does not comply with the requirements of this licence;
  - c) any trigger level specified in this licence which is attained or exceeded; and
  - d) any indication that environmental pollution has, or may have, taken place.
- 1.8. Where the Agency considers that a non-compliance with any condition of this licence has occurred, it may serve a notice on the licensee specifying:



- 1.8.1. That the licensee shall undertake the works stipulated in the notice, and/or otherwise comply with the requirements of the notice as set down therein, within the time-scale contained in the notice; and
- 1.8.2. That the licensee shall carry out any other requirement specified in the notice.

When the notice has been complied with, the licensee shall provide written confirmation that the requirements of the notice have been carried out. No waste, other than that which is stipulated in the notice, shall be accepted at the facility until written permission is received from the Agency.

- 1.9. Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any Condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary and shall notify the licensee in writing of any such modification or alteration. Every such plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency. Every such plan, programme or proposal agreed by the Agency shall be covered by the conditions of this licence

<i>REASON: To clarify the scope of this licence.</i>
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## **CONDITION 2 MANAGEMENT OF THE FACILITY**

### **2.1 Facility Management**

- 2.1.1 The licensee shall employ a suitably qualified and experienced facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation.
- 2.1.2 Both the facility manager and deputy, and any replacement manager or deputy, shall successfully complete both the FAS waste management training programme (or equivalent agreed with the Agency) and associated on site assessment appraisal within twelve months of appointment.
- 2.1.3 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience, as required and shall be aware of the requirements of this licence.

### **2.2 Management Structure**

- 2.2.1 Prior to the commencement of waste activities the licensee shall submit written details of the management structure of the facility to the Agency. Any proposed replacement(s) in the management structure shall be notified in advance in writing to the Agency. Written details of the management structure shall include the following information
  - a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;
  - b) details of the responsibilities for each individual named under a) above; and
  - c) details of the relevant education, training and experience held by each of the persons nominated under a) above.

### **2.3 Environmental Management System (EMS)**

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

2.3.2 The EMS shall include as a minimum the following elements:

2.3.2.1 Schedule of Environmental Objectives and Targets

The objectives should be specific and the targets measurable. The Schedule shall address a two-year period as a minimum. The Schedule shall include a time-scale for achieving the objectives and targets and shall comply with any other written guidance issued by the Agency.

2.3.2.2 Environmental Management Plan (EMP)

The EMP shall include, as a minimum, the following:

- (i) the items specified to be contained in an Environmental Management Plan in the Landfill Operational Practices Manual published by the Agency;
- (ii) methods by which the objectives and targets will be achieved and the identification of those responsible for achieving those objectives and targets;
- (iii) any other items required by written guidance issued by the Agency.

2.3.2.3 Corrective Action Procedures

The Corrective Action Procedures shall detail the corrective actions to be taken should any of the procedures detailed in the EMS not be followed.

2.3.2.4 Awareness and Training Programme

The Awareness and Training Programme shall identify training needs, for personnel who work in or have responsibility for the licensed facility.

2.4 Communications Programme

2.4.1 The licensee shall establish and maintain a Communications Programme to ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility. This shall be established within three months of granting of the licence.

*REASON: To make provision for the proper management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.*

## **CONDITION 3 FACILITY INFRASTRUCTURE**

3.1 The licensee shall establish all infrastructure referred to in this licence as required by the Conditions of this licence.

### 3.2 Specified Engineering Works

- 3.2.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule B: Specified Engineering Works*, of this licence, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.
- 3.2.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 3.2.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall include the following information;
- a) a description of the works;
  - b) as-built drawings of the works;
  - c) records and results of all tests carried out (including failures);
  - d) drawings and sections showing the location of all samples and tests carried out;
  - e) daily record sheets/diary;
  - f) name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;
  - g) name(s) of individual(s) responsible for supervision of works and for quality assurance validation of works;
  - h) records of any problems and the remedial works carried out to resolve those problems; and
  - i) any other information requested in writing by the Agency.

### 3.3 Facility Notice Board

- 3.3.1 The licensee shall provide and maintain a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.
- 3.3.2 The board shall clearly show:
- a) the name and telephone number of the facility;
  - b) the normal hours of opening;
  - c) the name of the licence holder;
  - d) an emergency out of hours contact telephone number;
  - e) the licence reference number; and
  - f) where environmental information relating to the facility can be obtained.

### 3.4 Facility Security

- 3.4.1 Prior to the commencement of the licensed activity, security and stockproof fencing and gates shall be installed and maintained. The base of the fencing shall be set in the ground. A drawing showing the location of the fencing shall be submitted to the Agency within two months of the date of grant of this licence.
- 3.4.2 The Beaumont Caves shall be secured by means of metal gates or grills and arrangements shall be made between the licensee and the Cork Speleological Group or the Speleological Union of Ireland regarding control of access. Details of these arrangements shall be circulated to both groups mentioned above and submitted to the Agency within six months of the date of grant of this licence.

- 3.4.3 The licensee shall remedy any defect in the gates and/or fencing as follows:
- a) a temporary repair shall be made by the end of the working day; and,
  - b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days.
- 3.5 Prior to the commencement of activities at the facility, details of a cordon to be erected around the entrance to the Beaumont caves shall be submitted to the Agency for agreement. The caves shall be cordoned off while the licensed activity is being carried on at the facility.
- 3.6 Facility Roads and Hardstanding
- 3.6.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.
- 3.7 Facility Office
- 3.7.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 3.7.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.
- 3.8 Waste Inspection and Quarantine Areas
- 3.8.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility at a location to be agreed within three months of the date of grant of this licence.
- 3.8.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other.
- 3.8.3 Unless otherwise agreed with the Agency, surface water from these areas shall be directed to the stormwater retention pond as shown on Drawing No. 2000-01101-08 Revision A entitled "Proposed Site Plan".
- 3.9 Weighbridge
- 3.9.1 The licensee shall provide and maintain a weighbridge at the facility.
- 3.10 Wheel Cleaning
- 3.10.1 The licensee shall establish and maintain a wheelwash at the facility.
- 3.11 Fuel Storage Areas
- 3.11.1 All fuel storage areas shall be rendered impervious to the materials stored therein.
- 3.11.2 All fuel storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:
- (a) 110% of the capacity of the largest tank or drum within the bunded area; or
  - (b) 25% of the total volume of substance which could be stored within the bunded area.
- 3.11.3 All drainage from bunded areas shall be diverted for collection and safe disposal.

3.11.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

3.11.5 The integrity and water tightness of all the bunds and their resistance to penetration by water or other materials stored therein shall be confirmed by the licensee and shall be reported to the Agency following its installation and prior to its use as a storage area. This confirmation shall be repeated at least once every three years thereafter and reported to the Agency on each occasion

### 3.12 Landfill Lining:

3.12.1 The landfill liner shall comprise the following:

Base and side wall

- a) mineral layer of a minimum thickness of 1m with a hydraulic conductivity less than or equal to  $1.0 \times 10^{-7}$  m/s ; or
- b) artificial mineral layer of minimum thickness 0.5metres providing the same level of protection as a) above.

3.12.2 Formation levels of cells 5,6,7 and 8 shall be submitted to the Agency within two months of the date of grant of this licence.

### 3.13 Surface Water Management

3.13.1 Effective surface water management infrastructure shall be provided and maintained at the facility during construction, operation, restoration and aftercare of the facility. As a minimum, the infrastructure shall be capable of the collection/diversion of run off arising from capped and restored areas.

### 3.14 Groundwater Management

3.14.1 Effective groundwater management infrastructure shall be provided and maintained at the facility during construction, operation, restoration and aftercare of the facility. As a minimum, the infrastructure shall be capable of the following:

- a) the protection of the groundwater resources from pollution by the waste activities; and
- b) the protection of other infrastructure from any adverse effects caused by the groundwater.

3.15 Prior to the commencement of the licensed activity at the facility, a temporary 6m high perimeter berm shall be constructed at the northern boundary of the facility as described in section 9.5.2 of the EIS. The licensee shall submit design details and a drawing showing the location of this berm to the Agency for agreement prior to its construction.

### 3.16 Replacement of Monitoring Infrastructure

- a) Monitoring infrastructure which is damaged or proves to be unsuitable for its purpose shall be replaced within three months of it being damaged or recognised as being unsuitable.

*REASON: To provide appropriate infrastructure for the protection of the environment.*

## CONDITION 4 RESTORATION AND AFTERCARE

- 4.1. The licensee shall restore the facility on a phased basis. The Restoration and Aftercare Plans for the facility shall include the plan submitted in Attachment G.1, Restoration Scheme, of the waste licence application and Drawing No. 2000-01101-09 entitled "Proposed Landscaping Plan".
- 4.2. Unless otherwise agreed with the Agency, the final profile of the facility shall be as shown in Figure 2.5 Final Restoration Profile in Volume 2 of the EIS.
- 4.3. Final Capping
  - 4.3.1. Unless otherwise agreed with the Agency, the final capping shall consist of the following:
    - topsoil layer of 500mm
- 4.4. No material or object that is incompatible with the proposed restoration of the facility shall be present within one metre of the final soil surface levels
- 4.5. Where tree planting is to be carried out above waste-filled areas, a synthetic barrier shall be used to augment the clay cap. Combined topsoil and subsoil depths shall be a minimum of 1.0 m.

*REASON: To provide for the restoration of the facility*

## CONDITION 5 FACILITY OPERATIONS

- 5.1 Wastes shall not be deposited in any cell or part of the landfill without the prior agreement of the Agency.
- 5.2 Waste Acceptance and Characterisation Procedures
  - 5.2.1 The licensee shall submit to the Agency for its agreement detailed written procedures for the acceptance, verification and handling of all wastes prior to the commencement of waste activities. The written procedures shall at a minimum include the requirements of Level 1, 2 and 3 characterisation testing (*Schedule F.2:Acceptance Criteria*).
  - 5.2.2 All waste deposited at the facility shall be placed in discrete cells of no more than 1,600m<sup>2</sup> in area and the filling procedure shall be as described in Attachment E.3.3 of the waste licence application.
  - 5.2.3 All waste shall be compacted as described in Attachment D.3 (d) of the waste licence application.
- 5.3 All wastes shall be checked at the working face. Any wastes not suitable for acceptance shall be removed for recovery or disposal at an appropriate alternative facility. Such waste shall be stored in the Waste Quarantine Area only. No waste shall be stored in the Waste Quarantine Area for more than three months.
- 5.4 Working Face

5.4.1 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; and
- 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.

## 5.5 Landscaping

5.5.1 The final Landscape Plan shall be as described in section 9.5.3 of the EIS and Drawing 2000-01101-09 Revision A "Proposed Landscaping Plan" of the application unless otherwise agreed with the Agency.

5.5.2 The existing hedgerow network which forms the boundary of the facility shall be retained by the licensee.

## 5.6 Operational Controls

5.6.1 The landfill shall be filled in phases. A report giving the details of the sequence of these phases is to be agreed with the Agency prior to the commencement of the licensed activity at the facility. The protection of the Beaumont Caves and the associated limestone habitats (above ground) shall be considered in this report.

5.6.2 Waste once deposited and covered shall not be excavated or disturbed unless the prior agreement from the Agency has been given.

5.6.3 Completed areas of the landfill shall be profiled so that no depressions exist in which water may accumulate.

5.6.4 Filled cells shall be permanently capped within twelve months of the cells having been filled to the required level.

5.6.5 The licensed activity shall be carried out such that silting up of the caves shall not occur.

5.6.6 Scavenging shall not be permitted at the facility.

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

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

5.6.9 Fuels shall only be stored at appropriately bunded locations on the facility.

5.6.10 All tanks and drums shall be labelled to clearly indicate their contents.

5.6.11 No smoking shall be allowed on the facility other than in the office building as shown on Drawing No. 2000-01101-08 Revision A "Proposed Site Plan".

## 5.7 Waste Handling

Inert waste accepted at the facility shall comply with the standards established in *Schedule F: Criteria for the Acceptance of Inert Waste*, of this licence. Analysis of such waste shall be in accordance with the requirements of that Schedule.

## 5.8 Off-site Disposal

5.8.1 Waste sent off-site shall only be conveyed by a waste contractor agreed by the Agency;

- 5.8.2 All waste transferred from the facility shall only be transferred to an appropriate facility agreed by the Agency;
- 5.8.3 All wastes removed off-site for disposal shall be transported from the facility to the consignee in a manner which will not adversely affect the environment.

#### 5.9 Maintenance

- 5.9.1 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.
- 5.9.2 All lagoon structures on the facility shall be inspected and certified fit for purpose every three years by an independent and appropriately qualified chartered engineer.
- 5.9.3 The licensee shall maintain and clearly label and name all sampling and monitoring locations.
- 5.9.4 The wheel-wash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel-wash and dispose of appropriately off site.
- 5.9.5 The licensee shall ensure that the licensed activity is carried out such that the integrity of the Beaumont Caves is maintained.

*REASON: To provide for appropriate operation of the facility to ensure protection of the environment.*

## **CONDITION 6 EMISSIONS**

- 6.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule C: Emission Limits* of this licence. There shall be no other emissions of environmental significance.
- 6.2. The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.
- 6.3. Emissions to Groundwater
  - 6.3.1. There shall be no direct emissions to groundwater.
- 6.4. Emissions to Sewer
  - 6.4.1. There shall be no discharge or emission to sewer of environmental significance.
  - 6.4.2. The discharge to sewer from the stormwater retention pond shall be as shown on Drawing 2000-01101-08 Revision A "Proposed Site Plan.
  - 6.4.3. 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.
  - 6.4.4. The licensee shall submit monitoring results to the Sanitary Authority on an annual basis.



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

## **CONDITION 7    NUISANCE CONTROL**

- 7.1 The licensee shall ensure that vermin, birds, flies, mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.
- 7.2 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.
- 7.3 Dust Control
- 7.3.1 In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.
- 7.4 Prior to exiting the facility, all waste vehicles shall use the wheelwash.

*REASON: To provide for the control of nuisances*

## **CONDITION 8    MONITORING**

- 8.1. The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule D: Monitoring*, of this licence and as specified in this licence. Unless otherwise specified by this licence, all environmental monitoring shall commence no later than two months after the commencement of the licensed activity at the facility.
- 8.2. The licensee shall amend the frequency, locations, methods and scope of monitoring as required by this licence only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.
- 8.3. Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturers' instructions (if any) so that all monitoring results accurately reflect any emission, discharge or environmental parameter.
- 8.4. The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.
- 8.5. Dust Monitoring
- 8.5.1. Dust monitoring shall be carried out at the locations ST1 – ST4 as shown on Table D.1.1 of this licence.
- 8.5.2. In addition to the locations ST1 – ST4 set out in Table D.1.1, the licensee shall carry out dust monitoring at two additional locations, one to the north of the site adjacent to the residential dwellings at St. Gerard Majella's Terrace and another to the east of the site at a location to be agreed with the Agency.
- 8.6. Meteorological Monitoring

- 8.6.1. The licensee shall make arrangements for representative meteorological data to be collated for the facility to fulfil the requirements of *Schedule D.5: Meteorological Monitoring*, of this licence.
- 8.6.2. The licensee shall install a windsock at the facility.
- 8.7. Topographical Survey
- 8.7.1. A topographical survey shall be carried out within six months of the date of commencement of the licensed activity at the facility. The survey shall include a measurement of the remaining available void space. It shall be repeated on a six monthly basis thereafter. The survey shall be in accordance with any written instructions issued by the Agency.
- 8.8. Ecological Assessment
- 8.8.1. An ecological survey of species associated with a limestone habitat, both invertebrate and botanical, shall be undertaken in the facility and the area immediately adjacent to it within the twelve month period following the date of grant of this licence.
- 8.8.2. A report on the ecological survey referred to in Condition 8.8.1 above and details of any follow-up works to be undertaken shall be submitted to the Agency for agreement within fourteen months of the date of grant of the licence.
- 8.9. Archaeological Assessment
- 8.9.1. Prior to the development of any 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 to the Agency.
- 8.10. Stability Assessment
- 8.10.1. Within six months of the date of grant of this licence, and annually thereafter, the licensee shall carry out a stability assessment of the following;
- a) the side slopes of the facility.
  - b) the effects if any, of the works associated with the licensed activity on the integrity and stability of the Beaumont Caves system.
- 8.11. Monitoring of the Beaumont Caves
- 8.11.1. The licensee shall monitor the Beaumont Cave system to ensure that the activities carried on at the facility do not affect their integrity. Details of how this monitoring shall be carried out shall be submitted to the Agency for its agreement prior to the commencement of the licensed activity at the facility.
- 8.12. Nuisance Monitoring
- 8.12.1. The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by mud, dust and odours.

*REASON: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions*

## CONDITION 9 CONTINGENCY ARRANGEMENTS

- 9.1. In the event of an incident the licensee shall immediately:
- a) identify the date, time and place of the incident;
  - b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
  - c) isolate the source of any such emission;
  - d) evaluate the environmental pollution, if any, caused by the incident;
  - e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
  - f) provide a proposal to the Agency for its agreement within one month of the incident occurring to:
    - i) identify and put in place measures to avoid reoccurrence of the incident; and
    - ii) identify and put in place any other appropriate remedial action.
- 9.2. The licensee shall, prior to commencement or within three months of the date of grant of this licence, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment. This shall include a risk assessment to determine the requirements at the facility for fire fighting and fire water retention facilities. The Fire Authority shall be consulted by the licensee during this assessment.
- 9.3. The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.
- 9.4. Emergencies
- 9.4.1. All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects;
  - 9.4.2. No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities;
  - 9.4.3. In the event that monitoring of the slide slopes of the facility indicate that there may be a risk of slope failure and/or an impact on the integrity of the Beaumont Caves, this will be treated as an emergency.

*REASON: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions*

## CONDITION 10 RECORDS

- 10.1 The licensee shall keep the following documents at the facility office.
- 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.
- 10.2 The licensee shall maintain a written record for each load of waste arriving at the facility. The licensee shall record the following:
- a) the date;
  - b) the name of the carrier;
  - c) the vehicle registration number;
  - d) the name of the producer(s)/collector(s) of the waste as appropriate;
  - e) a description of the waste including the associated EWC codes;
  - f) the quantity of the waste, recorded in tonnes
  - g) the name of the person checking the load; and,
  - h) where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed.
- 10.3 Written Records
- The following written records shall be maintained by the licensee:
- a) the types and quantities of waste disposed of at the facility each year. These records shall include the relevant EWC Codes;
  - b) all training undertaken by facility staff;
  - c) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;
  - d) details of all nuisance inspections; and
  - e) the names and qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.
- 10.4 The licensee shall maintain a written record of all complaints relating to the operation of the activity. Each such record shall give details of the following:
- a) date and time of the complaint;
  - b) the name of the complainant;
  - c) details of the nature of the complaint;
  - d) actions taken on foot of the complaint and the results of such actions; and,
  - e) the response made to each complainant.

*REASON: To provide for the keeping of proper records of the operation of the facility*

## **CONDITION 11 REPORTS AND NOTIFICATIONS**

11.1 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:

- (a) be sent to the Agency's headquarters;
- (b) comprise one original and three copies unless additional copies are required;
- (c) be formatted in accordance with any written instruction or guidance issued by the Agency;
- (d) include whatever information as is specified in writing by the Agency;
- (e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;
- (f) be submitted in accordance to the relevant reporting frequencies specified by this licence, such as in *Schedule E: Recording and Reporting to the Agency*, of this licence;
- (g) be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and
- (h) be transferred electronically to the Agency's computer system if required by the Agency.

11.2 In the event of an incident occurring on the facility, the licensee shall:

- a) notify the Agency as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident;
- b) submit a written record of the incident, including all aspects described in Condition 9.1(a-e), to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident; and
- c) in the event of any incident which relates to discharges to surface/sewer water, notify the Sanitary Section of Cork Corporation as soon as practicable and in any case not later than 10:00am on the following working day after such an incident.
- d) Should any further actions be taken as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.

11.3 Reports relating to Facility Operations

11.3.1 Achievement of Final Profile

11.3.1.1 Within nine months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, proposals for landfilling and restoration to achieve the final profile of the facility to the Agency for its agreement.

11.4 Monitoring Locations

11.4.1. Within three months of the date of grant of this licence, the licensee shall submit to the Agency an appropriately scaled drawing(s) showing all the monitoring locations that are stipulated in this licence. The drawing(s) shall include the reference code of each monitoring point.

11.5 Annual Environmental Report

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

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

## **CONDITION 12 CHARGES AND FINANCIAL PROVISIONS**

### 12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of IR £6,218 (€ 7,896) or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Act, 1996. The licensee shall in 2002 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Public Sector Average Earnings Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 2001, the licensee shall pay a pro rata amount from the date of this licence to 31<sup>st</sup> December. This amount shall be paid to the Agency within one month of the date of grant of this licence.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased or decreased the licensee shall contribute such sums as determined by the Agency to defraying its costs.

### 12.2 Financial Provision for Closure, Restoration and Aftercare

12.2.1 The licensee shall prior to the commencement of waste disposal activities establish and maintain a fund, or provide a written guarantee, that is adequate to assure the Agency that the licensee is at all times financially capable of implementing the Restoration and Aftercare Plan required by Condition 4. The type of fund established and means of its release/recovery shall be agreed by the Agency prior to its establishment.

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

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

12.2.4 Unless otherwise agreed any revision to the fund shall be computed using the following formula:

$$\text{Cost} = (\text{ECOST} \times \text{WPI}) + \text{CiCC}$$

Where:

Cost = Revised restoration and aftercare cost

ECOST = Existing restoration and aftercare cost

WPI = Appropriate Wholesale Price Index [Capital Goods, Building & Construction (i.e. Materials & Wages) Index], as published by the Central Statistics Office, for the year since last closure calculation/revision.

CiCC = Change in compliance costs as a result of change in site conditions, changes in law, regulations, regulatory authority charges, or other significant changes.

12.3 The licensee shall ensure the costs in the setting up, operation of, provision of financial security and closure and after-care for a period of at least 30 years shall be covered by the price to be charged for the disposal of waste at the facility.

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

# SCHEDULE A : Waste Acceptance

## A.1 Waste Acceptance

**Table A.1 Waste Categories and Quantities**

WASTE TYPE	MAXIMUM (TONNES PER ANNUM)	MAXIMUM OVER LIFE OF FACILITY (TONNES)
Inert Waste*	125,000	250,000
<b>TOTAL</b>	125,000	250,000

\* meeting the requirements of *Schedule F: Criteria for the Acceptance of Inert Waste*, of this licence.

# SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Development of the facility including preparatory works and installation of weighbridge
Lining Works
Final capping
Installation of Groundwater Control Infrastructure
Installation of Surface Water Management Infrastructure
Construction of temporary 6m high perimeter berm at the northern boundary.
Removal of Site Infrastructure
Any other works notified in writing by the Agency.

# SCHEDULE C :Emission Limits

## C.1 Noise Emissions: (Measured at the monitoring points indicated in *Table D.1.1*).

Day dB(A) L <sub>Aeq</sub> (30 minutes)	Night dB(A) L <sub>Aeq</sub> (30 minutes)
55	45

## C.2 Dust Deposition Limits: (Measured at the monitoring points indicated in *Table D.1.1*).

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

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



## SCHEDULE D : Monitoring

Monitoring to be carried out as specified below. The locations are as shown on Drawing No. 2000-01101-03 Revision A “1:500 Site Layout Plan” of the application.

### D.1 Monitoring Locations

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

**Table D.1.1** Monitoring Locations

DUST	PM <sub>10</sub>	ODOUR	NOISE	EMISSIONS TO SEWER	GROUND WATER
STATIONS	STATIONS	STATIONS	STATIONS	STATION	STATIONS
ST1	ST5 <sup>1</sup>	ST2	NS1	FS1	MW1
ST2	ST6 <sup>1</sup>	ST4	NS2	-	MW2
ST3	-	-	NS3	-	MW3
ST4	-	-	NS4	-	MW4
ST5 <sup>1</sup>	-	-	NS5	-	-
ST6 <sup>1</sup>	-	-	-	-	-

Note 1: at locations to be agreed with the Agency

### D.2 Dust and Odour

**Table D.2.1** Dust Monitoring Frequency and Technique

Parameter (mg/m <sup>2</sup> /day)	Monitoring Frequency	Analysis Method/Technique
Dust	Four times a year	Standard Method <sup>Note 1</sup>
Odour	Annually	Standard Method <sup>Note 2</sup>
PM <sub>10</sub>	Quarterly	Standard Method <sup>Note 2</sup>

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

Note 2: Analysis method to be agreed with the Agency.

### D.3 Noise

**Table D.3.1** Noise Monitoring Frequency and Technique

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

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

## D.4 Groundwater

**Table D.4.1** Groundwater - Parameters /Frequency

Parameter <sup>Note 1</sup>	GROUNDWATER Monitoring Frequency
Visual Inspection/Odour <sup>Note 2</sup>	Quarterly
Groundwater Level	Monthly
Ammoniacal Nitrogen	Quarterly
Chloride	Quarterly
Electrical Conductivity	Quarterly
pH	Quarterly
Temperature	Monthly
Cadmium	Annually
Calcium	Annually
Copper	Annually
Cyanide (Total)	Annually
Iron	Quarterly
Lead	Annually
List I/II organic substances <sup>Note 3</sup>	Annually
Mercury	Annually
Nickel	Annually
Potassium	Quarterly
Sulphate	Annually
Sodium	Quarterly
Residue on evaporation	Annually
Zinc	Annually

**Note 1:** All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.

**Note 2:** Where there is evident gross contamination, 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).

## D.5 Meteorological Monitoring

**Table D.5.1** Meteorological Monitoring:  
Data to be obtained from Cork Airport

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

## D.6 Monitoring of Emissions to Sewer

**Emission Point Reference No.:** FS 1

**Location:** as shown on Drawing 2000-01101-03 Revision A “1:500 Site Layout Plan”

**Table D.6.1** Sewer Monitoring - Parameters /Frequency

Parameter	Monitoring Frequency	Analysis Method/Technique <sup>Note 1</sup>
pH	Quarterly	pH meter/recorder
Electrical Conductivity (µS/cm)	Quarterly	Conductivity Meter
Sulphate	Quarterly	Standard Method <sup>Note 2</sup>
Suspended Solids	Quarterly	Standard Method <sup>Note 2</sup>
BOD	Quarterly	Standard Method <sup>Note 2</sup>

Note 1: Or an equivalent method acceptable to the Agency.

Note 2: “Standards Methods for the Examination of Water and Wastewater”.

## SCHEDULE E :Recording and Reporting to the Agency

Report	Reporting Frequency <sup>Note1</sup>	Report Submission Date
Environmental Management System Updates	Annually	One month after the end of the year reported on.
Annual Environment Report (AER)	Annually	Thirteen months from the date of grant of licence and one month after the end of each year thereafter.
Record of incidents	As they occur	Within five days of the incident.
Bund, tank and container integrity assessment	Every three years	Six months from the date of grant of licence and one month after end of the three year period being reported on.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Monitoring of Groundwater Quality	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
Odour 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.
PM <sub>10</sub> Monitoring	Quarterly	Ten days after end of the quarter being reported on.
Emissions to Sewer Monitoring	Quarterly	Ten days after end of the quarter being reported on.
Any other monitoring	As they occur	Within ten days of obtaining results.

Note 1: Unless altered at the request of the Agency

# SCHEDULE F : Criteria for the Acceptance of Inert Waste

## F.1 Acceptable Waste

Only inert wastes (soils and subsoils) are acceptable at the facility, unless otherwise agreed with the Agency. Waste must satisfy the criteria in F.2 Acceptance Criteria and F.3 Limit values for pollutant content for inert waste landfills, of this licence.

## F.2 Acceptance Criteria

The general characterisation and testing must be based on the following three level hierarchy:

### Level 1: Basic Characterisation

This constitutes a thorough determination, according to standardised analysis and behaviour testing methods, of the short and long-term leaching behaviour and/or characteristic properties of the waste.

### Level 2: Compliance Testing

This constitutes periodical testing by simpler standard analysis and behaviour-testing methods to determine whether a waste complies with condition and /or specific reference criteria. The tests focus on key variables and behaviour identified by basic characterisation.

### Level 3: On-site verification

This constitutes rapid check methods to confirm that a waste is the same as that which has been subjected to compliance testing and that which is described in the accompanying documents. It may merely consist of a visual inspection of a load of waste before and after unloading at the landfill site.

All waste loads must provide the following information (if available) :

Waste owner	Amount of waste
Source and origin of waste	Existing data on the waste
Description of the waste	Physical form
Waste Type and EWC code	Colour
Type of process producing the waste	Odour

All wastes accepted for disposal at the landfill shall undergo the Level 3: On-site verification at a minimum.

In addition to the above a representative load from every excavation/demolition/waste removal works is subjected to a comprehensive assessment which must satisfy Level 1 characterisation.

The comprehensive assessment must at a minimum include the following:

1. A chemical analysis of a representative sample. At least one sample per 1,500 tonnes or portion thereof must be taken for chemical analysis for each excavation or demolition works. However, if the comprehensive assessment is undertaken prior to the commencement of excavation or clearance activity, the licensee may reduce the number of samples for chemical analysis to one for each 7,500 t or portion thereof. The sampling location must be identified on a sampling grid and enclosed in the comprehensive assessment.
2. An evaluation of the acceptability of the disposal of the waste at the landfill including observance of limits for total pollutants contents in *Schedule F.3: Limit values for pollutant content for inert waste landfills*, of this licence, below.
3. A statement of any pre-treatment requirement (if any).
4. Evidence that the waste displays no hazardous properties upon disposal.

If as a result of examinations undertaken in the course of excavation or clearance activity, the suspicion of contamination should arise, the type and concentration of the contamination must be determined, and its extent established through additional sampling.

Wastes of unknown origin or with insufficient waste description must be subjected to a chemical analysis.

In addition to the assessment above representative samples upon delivery of wastes must be taken for compliance testing purposes (Level 2). The tests shall focus on key variables and behaviour identified by the chemical analysis.

A representative sample shall be taken from one in every 100 loads of waste accepted at the facility. This sample shall be subjected to Level 2 testing. Part of this sample shall be retained at the facility for three months and be available for inspection/analysis by the Agency.

### ***F.3 Limit values for pollutant content for inert waste landfills.***

The following limit values relate to the average amount of constituent substances in the waste. The mean value of all individual measuring values from one bulk sample must not exceed the limit value concerned.

Parameter	Limit	
	( mg/kg dry mass, not including pH value and Electrical Conductivity)	
	Total Pollutant Contents	Eluate
PH	-	6 –11
Electrical conductivity	-	150
Dry residue	-	8,000
Arsenic (as As)	200.0	0.5
Aluminium (as Al)	-	5.0
Barium (as Ba)	-	10.0
Lead (as Pb)	500.0	1.0
Cadmium (as Cd)	4.0	0.05
Chromium, total (as Cr)	500.0	1.0
Chromium, hexavalent (as Cr)	-	0.5
Cobalt (as Co)	500.0	1.0
Iron (as Fe)	-	10.0
Copper (as Cu)	500.0	2.0
Nickel (as Ni)	500.0	1.0
Mercury (as Hg)	2.0	0.01
Silver (as Ag)	-	0.2
Zinc (as Zn)	1000.0	10.0
Tin (as Sn)	-	2.0
Ammonium (as N)	-	8.0
Chloride (as Cl)	-	2,000.0
Cyanide, easily liberatable (as Cn)	-	0.2
Fluoride (as F)	-	20.0
Nitrate (as N)	-	100.0
Nitrite (as N)	-	2.0
Phosphate (as P)	-	5.0
TOC (as C)	20,000.0	200
Total hydrocarbons	20.0	50.0
EOX (as Cl)	-	0.3

Total of polycyclical aromatic compounds (PAK)	0.5	-
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## **SCHEDULE G :Content of the Annual Environmental Report**

<b>Annual Environmental Report Content</b>
Reporting Period.
Waste activities carried out at the facility.
Quantity and Composition of waste received and disposed of 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 interpretation of environmental monitoring.
Resource and energy consumption summary.
Proposed development of the facility and timescale of such development.
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 quantity of indirect emissions to groundwater.
Report on the progress towards achievement of the Environmental Objectives and Targets contained in previous year's report.
Schedule of Environmental Objectives and Targets for the forthcoming year.
Full title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation.
Tank, pipeline and bund testing and inspection report.
Reported incidents and Complaints summaries.
Review of Nuisance Controls.
Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.
Report on training of staff.
Any other items specified by the Agency.

**Sealed by the seal of the Agency  
on this the 29<sup>th</sup> day of November 2001**

**PRESENT when the seal of the Agency  
was affixed hereto:**

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**Iain Maclean                      Director**