

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

WASTE LICENCE
PROPOSED DECISION

Waste Licence	132-1
Register Number:	
Applicant:	David McSweeney
Location of Facility:	Lotamore, Glanmire, Cork

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Reasons for the Decision

The Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence any emissions from the activity will comply with and not contravene any of the requirements of Section 40(4) of the Waste Management Act, 1996.

In reaching this decision the Agency has considered the application and supporting documentation received from the applicant, all submissions received from other parties and the report of its inspector.

Part I Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Environmental Protection Agency (the Agency) proposes, under Section 40(1) of the said Act to grant this Waste Licence to David McSweeney to carry on the waste activities listed below at Lotamore, Glanmire, Cork subject to eleven conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed waste disposal activities, in accordance with the Third Schedule of the Waste Management Act, 1996

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

This activity is limited to the deposit in landfill of 14,000 tpa of inert non-hazardous construction and demolition type wastes and surplus soil and is the principal activity.

INTERPRETATION

Act	The Waste Management Act, 1996 (No. 10 of 1996).
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Adequate lighting	20 lux measured at ground level.
Agreement	Agreement in writing.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
Application	The application by the licensee for this waste licence, including any other material submitted to the Agency in writing by the licensee between the date of the application and the date of grant of this licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
BATNEEC	Best Available Technology Not Entailing Excessive Cost as defined in section 5 (2) of the Act.
Biodegradable waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard.
Commercial waste	As defined in Section 5 (1) of the Act.
Condition	A condition of this licence. In any case where this licence refers to a numbered condition, the reference shall be taken to mean the condition and any sub-condition therein which the context of the reference requires that reference is made to.
Containment boom	A boom which can contain spillages and prevent these from entering drains or watercourses.
Cover material	Bricks, crushed concrete, tarmac, earth, soil, sub-soil, stone, rock or other similar natural materials; or other cover material the use of which has been agreed with the Agency.
Daytime	8.00 a.m. to 10.00 p.m.
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 F.
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.
Hazardous Waste	As defined in Section 4 (2) of the Act.
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.
Incident	Any reference to an incident in this licence means an incident as defined in Condition 3.1.
Landfill	As defined in Section 5 (1) of the Act.
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.
Licence	A Waste Licence issued in accordance with the Act.
Licensee	Mr David McSweeney.
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 2% 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.
Night-time	10.00 p.m. to 8.00 a.m.
Non-hazardous waste	Non-Hazardous Waste is any waste which is not a hazardous waste as defined in the Act.
N/A	Not Applicable
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
Specified Emissions	Those emissions listed in Schedule F: Emission Limits of this licence.
Specified Engineering Works	Those engineering works listed in Schedule D: Specified Engineering Works of this licence.
Submit	Unless the context of this licence indicates otherwise, submit in writing to the Agency for its 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	Between the hours of 9.00 a.m. to 5.30 p.m. Monday to Saturday inclusive November to February, and between the hours of 8.00 a.m. and 5.30 p.m. Monday to Saturday inclusive from March to October.
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 Part I: Activities Licensed and required by the licence.
- 1.2. Waste activities shall be restricted to the area of land outlined in red on Drawing No. 98004-4 Rev. A (dated 06/12/99) of the application. Any reference in this licence to "facility" shall mean the area thus outlined in red.
- 1.3. Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary. Every plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency.
- 1.4. This licence is for the purposes of waste licensing under the Waste Management Act 1996 only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.
- 1.5. Where the Agency considers that a non-compliance with the Conditions of this licence has occurred, it may serve a notice on the licensee specifying:
 - a) that only those wastes as specified, if any, in the notice are to be accepted at the facility after the date set down in the notice;
 - b) that the licensee shall undertake the works stipulated in the notice, and/or otherwise comply with the requirements of the notice as set down therein, within the time-scale contained in the notice; and,
 - c) that the licensee shall carry out any other requirement specified in the notice.

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

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

CONDITION 2 MANAGEMENT OF THE ACTIVITY

- 2.1 Environmental Management System
 - 2.1.1 The licensee shall, three months prior to the commencement of waste activities, submit to the Agency for its agreement a proposal for a documented Environmental Management System (EMS) for the facility. Following the agreement of the Agency, the licensee shall establish and maintain such a system. The EMS shall be updated on an annual basis with amendments being submitted to the Agency for its agreement.
 - 2.1.2 The EMS shall include as a minimum those elements specified in the Conditions 2.2 to 2.7 below:

2.2 Schedule of Environmental Objectives and Targets

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

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

2.3 Environmental Management Programme

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

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

2.4 Corrective Action

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

2.5 Awareness and Training

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

2.6 Management Structure

2.6.1 Prior to the commencement of waste activities, the licensee shall submit written details of the management structure of the facility for the agreement of the Agency. Any proposed changes in the management structure shall be submitted in writing to the Agency for its agreement. Written details of the management structure shall include the following information:

- a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence;
- b) a named contact person for communications with the Sanitary Authority;
- c) details of the responsibilities for each individual named under a) above;
- d) details of the relevant experience, competence and qualifications held by each of the persons nominated under a) above; and
- e) contingency arrangements for the absences of the named persons from the facility.

2.7 Communications

- 2.7.1 Within nine months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement a Communications Programme to ensure that members of the public can obtain information concerning the environmental performance of the facility at all reasonable times.
- 2.8 Annual Environmental Report
- 2.8.1 The licensee shall submit to the Agency for its agreement, within thirteen months from the date of grant of this licence, and within one month of the end of each year thereafter, an Annual Environmental Report (AER).
- 2.8.2 The AER shall include as a minimum the information specified in Schedule B: 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:
- any nuisance caused by the activity;
 - any emission which does not comply with the requirements of this licence;
 - any trigger level specified in this licence which is attained or exceeded;
 - any indication that environmental pollution has, or may have, taken place; and,
 - any emergency.
- 3.2 The written record shall include all aspects described in Condition 10.6(a-e).
- 3.3 Unless otherwise instructed in writing by the Agency, the licensee shall:
- notify the Agency as soon as practicable and in any case not later than 10.00 a.m. the following working day after the occurrence of any incident;
 - submit the written record required by this condition to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident; and
 - in the event of any incident which relates to discharges to surface water, notify South Western Regional Fisheries Board as soon as practicable and in any case not later than 10.00 a.m. on the following working day after such an incident.

- 3.4 Should any further actions be taken after the date of written notification, as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.
- 3.5 Unless otherwise agreed by the Agency, all documentation submitted to the Agency shall:
- a) be sent to the Agency's headquarters;
 - b) comprise one original and three copies;
 - c) be formatted in accordance with any written instruction or guidance issued by the Agency;
 - d) include whatever information as is specified in writing by the Agency;
 - e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;
 - f) be submitted in accordance with the relevant reporting frequencies specified by this licence; and
 - g) in the case of results of any environmental monitoring, be accompanied by a written interpretation setting out their significance.
- 3.6 Copies of all environmental monitoring data obtained by the licensee which relates to the facility shall be forwarded to the Agency at the frequencies set out in Schedule C: Recording and Reporting to the Agency of this licence.
- 3.7 Unless otherwise agreed with the Agency, all documentation and records required to be made under this licence, shall be retained by the licensee.
- 3.8 The licensee shall provide additional copies of any documentation and records referred to in this licence to the Agency upon written request, within the time specified in writing by the Agency.
- 3.9 The licensee shall keep the following documents at the facility office referred to in Condition 4.5.
- a) the current waste licence relating to the facility;
 - b) the current EMS for the facility;
 - c) the previous year's AER for the facility;
 - d) all written procedures produced by the licensee which relate to the licensed activities.
- 3.10 The licensee shall maintain a written record for each load of waste arriving at the facility. The licensee shall record the following:
- a) the 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.
- 3.11 The licensee shall maintain a written record of the type and quantity, recorded in tonnes, of all wastes disposed of at the facility.
- 3.12 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.
- 3.13 Provision shall be made for the transfer of environmental information specified by the Agency, in relation to the activities carried on under this licence, to the Agency's computer system within a timescale specified in writing by the Agency.

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

CONDITION 4 SITE INFRASTRUCTURE

- 4.1 The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as instructed by the Agency.
- 4.2 Site Notice Board
 - 4.2.1 The licensee shall provide and maintain a Site Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the identification board shall be 1200 mm by 750 mm.
 - 4.2.2 The board shall clearly show:
 - a) the name and telephone number of the facility;
 - b) the normal hours of opening;
 - c) the name, address and telephone number of the licence holder;
 - d) an emergency out of hours contact telephone number;
 - e) the name, address and telephone number of the operator of the facility;
 - f) the licence reference number;
 - g) where and when environmental monitoring information relating to the facility can be obtained.
- 4.3 Site Security
 - 4.3.1 A concrete post and mesh wire fence or another specification to be agreed with the Agency, at least 2.5m high with gates at the entrance shall be installed along the entire site boundary as marked in red on drawing No. 98004-4 Rev. A. The base of the fencing shall be set in the ground. In so far as possible the existing hedgerow network which forms part of the boundary of the facility shall be retained by the licensee.

- 4.3.2 The licensee shall remedy any defect in the gates and/or fencing as follows:
- a) a temporary repair shall be made by the end of the working day; and,
 - b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days or as otherwise agreed with the Agency.
- 4.3.3 Gates shall be locked shut when the facility is unsupervised.
- 4.4 Site Roads and Hardstanding
- Site roads shall be maintained to the specification as given in section D.1 of the response to Article 16(1), dated 15th August 2000 and shall ensure the safe movement of vehicles within the facility.
- 4.5 Prior to the commencement of waste activities the licensee shall provide and maintain an office on the facility, at a location to be agreed with the Agency. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 4.6 The licensee shall provide and maintain a working telephone and facsimile machine in the office specified in Condition 4.5 above.
- 4.7 Inspection
- 4.7.1 Within one month of the date of grant of this licence a proposal for a combined Waste Inspection Area/ Waste Quarantine Area shall be submitted to the Agency for agreement.
 - 4.7.2 The licensee shall ensure that these areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required.
 - 4.7.3 All drainage from the Waste Inspection Area/ Waste Quarantine Area shall be collected for safe disposal.
 - 4.7.4 The outlet from the waste inspection/quarantine area shall be fitted with a control valve which shall be closed during all times when waste is being inspected and/or stored prior to removal offsite.
- 4.8 Prior to the commencement of waste activities the licensee shall provide and maintain a weighbridge at the facility at a location to be agreed in advance with the Agency.
- 4.9 Wheelwash
- 4.9.1 The licensee shall ensure that dust and dirt on vehicle wheels do not cause a nuisance on the public roads. Within three months of commencement of waste activities the licensee shall submit a proposal re wheelwash and, if required, install to a timescale to be 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 Storage Areas

4.11.1 No fuel shall be stored on the facility unless the prior agreement of the Agency has been obtained.

4.12 Specified Engineering Works

4.12.1 The licensee shall submit written proposals for all Specified Engineering Works, as defined in Schedule D: Specified Engineering Works, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.

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

4.12.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall include the following information;

- a) a description of the works;
- b) as-built drawings of the works;
- c) records and results of all tests carried out (including failures);
- d) where relevant a drawing and sections showing the location of all samples and tests carried out;
- e) where relevant daily records sheets/diary;
- f) name(s) of contractor(s)/individual(s) responsible for undertaking the engineering works;
- g) name(s) of individual(s) responsible for supervision of works and for quality assurance validation of works;
- h) records of any problems and the remedial works carried out; and
- i) any other information requested in writing by the Agency.

4.13 Landfill Lining:

4.13.1 The liner system should at minimum meet the following requirements: the base and side wall mineral layer should have a minimum thickness of 1m with a hydraulic conductivity less than or equal to 1×10^{-7} m/s. Where the geological barrier does not naturally meet the above conditions it shall be completed artificially and reinforced by other means giving equivalent protection.

4.14 Capping

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

- top soil 500 mm

4.15 Surface Water Management

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

4.15.2 Land drains should be provided as shown in Drawing No. 98004-1 Rev. E to coincide with the point of resurgence of the seasonal springs on site.

- 4.15.3 Land drains as referred to in Condition 4.15.2 above, including additional drains if necessary should intercept all of and only the flow from all springs on site, including any springs which may be discovered during the course of development/operation of the site.
- 4.15.4 Discharge from all drains must enter the surface water stream towards the north of the site.
- 4.15.5 Within three months of the date of commencement of waste activities months of the date of grant of the licence an assessment of the effectiveness of the surface water management on site shall be submitted to the Agency. This shall take into account the results of all surface water monitoring undertaken.
- 4.15.6 Three months prior to the commencement of waste activities the licensee shall, making reference to the results of surface water monitoring, assess the need for a drainage settlement lagoon on site. If required the licensee shall then submit proposals including design details, capacity, retention time etc. to the Agency for agreement. The Agency may then, if required impose emission limit values on the discharge from the drainage settlement lagoon.

4.16 Groundwater Management

- 4.16.1 The licensee shall ensure the ongoing protection of groundwater resources from activities carried out at this facility.
- 4.16.2 Prior to the commencement of waste activities an inventory of existing beneficial users of groundwater within 500m downgradient of the site should be compiled as recommended in Attachments C6/H6 of the application.

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

CONDITION 5 WASTE MANAGEMENT

- 5.1. This facility shall only accept inert wastes for disposal. No other waste shall be accepted.
- 5.2. Waste Types
 - 5.2.1 Subject to Condition 5.1, and any requirements of Condition 5.3, only those waste types and quantities listed in Schedule G: Waste Acceptance shall be disposed of at the facility unless the prior agreement of the Agency has been obtained.
 - 5.2.2 Only construction and demolition waste from excavations and waste removal activities with which Mr. David McSweeney (Demolition and Civil Engineering Contractor) is the main contractor shall be accepted at the facility.
 - 5.2.3 The waste analysis testing shall use standardised and internationally accepted procedures, as outlined in Schedule G, and be carried out by a competent laboratory. Details shall be submitted to the Agency for its agreement prior to waste acceptance at the facility.
- 5.3. Waste Acceptance and Waste Characterisation Procedures
 - 5.3.1. Prior to the commencement of waste activities the licensee shall submit to the Agency for its agreement detailed written procedures for the acceptance, verification and handling of all wastes. The written procedures shall at a

minimum include the requirements of Level 1, 2, and 3 characterisation testing (Schedule G.3).

- 5.3.2. The licensee shall undertake a comprehensive assessment of all wastes to be disposed of in the landfill. The assessment shall include at a minimum the terms outlined in Schedule G.3. Waste disposal at the facility shall only be permitted if a comprehensive assessment satisfies the criteria set out in Schedule G.
- 5.3.3. In addition to the above, all wastes accepted for disposal at the landfill shall undergo the Level 3: on-site verification. At a minimum Level 3 requires that all wastes shall be checked at the working face to ensure that they comply with the requirements of the licence. Any wastes deemed to be in contravention of this licence and/or unsuitable for disposal at this facility shall be removed for recovery or disposal at an appropriate alternative facility. Such waste shall be stored in the Waste Quarantine/Waste Inspection Area only. A record of all inspections shall be maintained.
- 5.4. The quantity of wastes to be accepted for disposal at the landfill, shall not exceed 14,000 tonnes per annum, unless otherwise agreed in advance with the Agency.
- 5.5. Wastes shall not be deposited in any cell or part of the landfill without the prior agreement of the Agency.
- 5.6. Scavenging shall not be permitted at the facility.
- 5.7. Waste shall only be accepted at the facility between the hours below unless otherwise agreed in advance with the Agency.

November to February

between the hours of 9.30 a.m. to 5.00 p.m. Monday to Saturday inclusive.

March to October

between the hours of 8.30 a.m. and 5.00 p.m. Monday to Saturday inclusive.

- 5.8 Unless the prior agreement of the Agency is given, the following shall apply at the landfill:
 - a) only one working face shall exist at the landfill at any one time for the deposit of waste other than cover or restoration materials;
 - b) the working face of the landfill shall be no more than 2.5 metres in height after compaction, no more than 25 metres wide and have a slope no greater than 1 in 3; and,
 - c) all waste deposited at the working face shall be compacted as soon as is practicable and at any rate prior to the end of the working day.
- 5.9 Any cover material at any location within the facility which is eroded, washed off or otherwise removed shall be replaced by the end of the working day.
- 5.10 A steel wheeled compactor or other such vehicle as agreed with the Agency shall be used for compacting all waste other than that used for restoration or construction purposes.
- 5.11 In order to prevent the formation of voids, all large hollow objects and other large articles deposited at the facility shall be crushed, broken up, flattened or otherwise treated.

- 5.12 Wastes once deposited and covered shall not be excavated, disturbed or otherwise picked over without prior agreement from the Agency.
- 5.13 No smoking shall be allowed on the facility.
- 5.14 Recovery
- A report examining recovery provisions shall be submitted to the Agency within three months of the date of grant of this licence. This report shall show how the requirements of the policy statement 'Waste Management, changing our ways' are to be met, as regards the recovery/recycling of construction and demolition wastes.
- 5.15 Waste sent off-site for recovery or disposal shall only be conveyed to a waste contractor, as agreed by the Agency. The ultimate recovery or disposal facility for all wastes shall be agreed in advance with the Agency. All wastes removed off-site for recovery or disposal shall be transported from the facility to the consignee in a manner which will not adversely affect the environment.
- 5.16 Within six months of the date of grant of this licence, the licensee shall review the measures in place to minimise dust generation at this facility and shall provide a report to the Agency for its agreement, making recommendations on the necessity of installing a sprinkling irrigation system or other system for the control of dust nuisance from the facility. Any remedial works recommended in this report must be implemented within a time-scale to be agreed with the Agency.

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

CONDITION 6 ENVIRONMENTAL NUISANCES

- 6.1. The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by vermin, birds, flies, mud, dust and odours. Written records shall be made of all inspections and any actions taken as a result of these inspections.
- 6.2. The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.
- 6.3. Litter Control
- 6.3.1. Within three months of the date of grant of this licence the licensee shall submit to the Agency for its agreement proposals for the operation of the facility in adverse wind conditions.
- 6.3.2. All loose litter accumulated within the facility and its environs, excluding that which is deposited on the working face, shall be removed subject to the agreement of the landowners and appropriately disposed of on a daily basis.
- 6.4. Any waste placed on or in the vicinity of the facility, other than in accordance with the requirements of this licence, shall be removed by the licensee immediately and in any event by 10.00 a.m. of the next working day, after such waste is discovered. Such waste shall be disposed of at an appropriate facility.
- 6.5. The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.

6.6. Dust Control

- 6.6.1. In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.
- 6.6.2. From the commencement of construction activities the dust control measures outlined in sections D.1 and F of the response to Art 16(1) notice, dated 15/08/00 shall be implemented at the facility.
- 6.7. The licensee shall ensure that vermin, birds, flies, mud, dust and odours do not give rise to nuisance at the facility or the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.
- 6.8. Within three months of the date of commencement of waste activities the licensee shall review the nuisance control measures adopted on site and submit proposals for any new nuisance control measures required.

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 F: Emission Limits of this licence. There shall be no other emissions of environmental significance.
- 7.2. All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.
- 7.3. The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.
- 7.4. Emissions to Surface Water
 - 7.5.1 No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.
- 7.6 There shall be no direct emissions to groundwater.

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

CONDITION 8 RESTORATION AND AFTERCARE

- 8.1. A Restoration and Aftercare Plan for the facility shall, unless otherwise agreed with the Agency be based on the plan submitted as part of Attachment G of the licence application and shall be submitted to the Agency within six months of date of commencement of waste activities.

- 8.2. Unless otherwise agreed in advance or instructed by the Agency, the final profile of the facility shall be as shown in Drawing No. 98004-1 Rev. E.
- 8.3. Completed areas of the landfill shall be profiled so that no depressions exist in which water may accumulate. Any depressions arising after profiling shall be rectified by the emplacement of suitable capping or restoration materials.
- 8.4. No material or object that is incompatible with the proposed restoration of the facility shall be present within one metre of the final soil surface levels.
- 8.5. Where tree planting is proposed to be carried out above waste-filled areas, a synthetic barrier shall be used to augment the clay cap. Topsoil and subsoil depths shall be a minimum of 1m unless otherwise agreed in advance with the Agency.

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

CONDITION 9 ENVIRONMENTAL MONITORING

- 9.1. The licensee shall carry out such monitoring and at such locations and frequencies as set out in Schedule E: Monitoring and as specified in the Conditions of this licence.
- 9.2. At least two leachate monitoring boreholes shall be installed at locations to be agreed in advance with the Agency.
- 9.3. Noise monitoring shall take place at the locations N1 to N7 as described in Attachment C8/H8 of the application.
- 9.4. 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.
- 9.5. Groundwater wells quality data should be gathered for the supplies identified by the survey referred to in Condition 4.16.2.
- 9.6. The licensee shall maintain all sampling and monitoring points, and clearly label and name (including national grid number) all sampling and monitoring locations, so that they may be used for representative sampling and monitoring.
- 9.7. Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacture's instructions (if any) so that all monitoring results accurately reflect any emission or discharge or environmental parameter.
- 9.8. The licensee shall amend the frequency, locations, methods and scope of monitoring, sampling, analyses and investigations only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.
- 9.9. Within two months of commencement of waste activities the following information shall be submitted to the Agency for its agreement: 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. Any proposed changes to the above shall be submitted in writing to the Agency for its agreement.
- 9.10. A topographical survey including the void space shall be carried out prior to the final capping and restoration of the site. The survey shall be in accordance with any written instructions issued by the Agency.

- 9.11. An annual biological assessment of the tributary to the Glen River at points to be agreed in advance with the Agency, one upstream and one downstream of the site shall be undertaken. This assessment shall use the EPA Q-rating system for the assessment of rivers and streams. The report shall include a drawing showing the location of monitoring points, each identified by a unique number and a twelve figure grid reference.
- 9.12. Archaeological Monitoring/Survey
- 9.12.1 During the excavation of subsoil for site development/preparation works, the licensee shall ensure that the presence of archaeological remains is monitored and recorded by a qualified archaeologist. In the event that any features/artefacts of archaeological value are unearthed the licensee shall take the appropriate precautions to ensure these features/artefacts are surveyed to an appropriate level of detail. The national museum, Duchas and the Agency shall be informed of any such finds as soon as possible after the find.
- 9.12.2 The scope of any archaeological investigations shall be agreed in advance with the Agency.
- 9.13. 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.
- 9.14. Unless otherwise agreed in advance with the Agency, monitoring infrastructure which proves to be unsuitable for its purpose shall be replaced within three months of monitoring results indicating that the monitoring infrastructure is damaged or unsuitable.
- 9.15. Within six months of the date of grant of this licence, the licensee shall submit to the Agency an updated appropriately scaled drawing(s) showing the location of all the monitoring locations that are stipulated in this licence or as agreed thereafter by the Agency. These shall be accompanied by a register of unique coded reference numbers and twelve figure grid references for each.

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. Prior to the commencement of waste activities the licensee shall 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. 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.
- 10.3. 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.
- 10.4. No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency. Immediate action shall be taken to extinguish it and the appropriate authorities notified.

- 10.5. In the event that monitoring of local wells 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.
- 10.6. Unless otherwise notified in writing by the Agency, in the event that any monitoring, sampling, complaints or observations indicate that an incident has, or may have, taken place, the licensee shall immediately:
- a) identify the date, time and place of the incident;
 - b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission;
 - c) isolate the source of the emission;
 - d) evaluate the environmental pollution, if any, caused by the incident;
 - e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - f) provide a proposal to the Agency for its agreement within one month to:
 - i) identify and put in place measures to avoid recurrence of the incident; and
 - ii) identify and put in place any other appropriate remedial action.
- 10.7. The licensee shall carry out a risk assessment to determine the requirements at the facility for fire fighting and fire water retention facilities and shall, within six months from the date of grant of this licence submit a report, including recommendations on the risk assessment to the Agency for its agreement. The Chief Fire Officer of Cork County Council shall be consulted by the licensee during this assessment.

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 £8,036 or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Act, 1996. The licensee shall in 2001 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Public Sector Average Earnings Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 2000, the licensee shall pay a pro rata amount from the date of this licence to 31st December 2000. This amount shall be paid to the Agency within one month of the date of grant of this licence.

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

11.2 Financial Provision for Closure, Restoration and Aftercare

11.2.1 The licensee shall arrange for the completion of a comprehensive and fully costed Environmental Liabilities Risk Assessment for the facility which will address liabilities arising from the carrying on of the activities to which this licence relates. A report on this assessment shall be submitted to the Agency for its agreement within six months of date of grant of this licence.

11.2.2 Within nine months of the date of grant of this licence, the licensee shall make a Proposal for Financial Provision to the Agency for its agreement to cover any liabilities incurred by the licensee in carrying on the activities to which this licence relates. Such provision shall be maintained by the licensee unless otherwise agreed by the Agency.

11.2.3 The amount of financial provision, held under condition 11.2.2 shall be reviewed and revised as necessary, but at least annually. Any proposal for such a revision shall be submitted to the Agency for its agreement.

11.2.4 The licensee shall within two weeks of purchase, renewal or revision of the financial provision required under condition 11.2.2, forward to the Agency written proof of such indemnity.

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

SCHEDULE A : 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 B : 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 during the reporting period and each previous year.

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

Methods of deposition of waste.

Summary report on emissions.

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

Resource and energy consumption summary.

Proposed development of the facility and timescale of such development.

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

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

Report on restoration of completed cells/ phases.

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

Estimated annual and cumulative quantity of indirect emissions to groundwater.

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.

Reported incidents and Complaints summaries.

Review of Nuisance Controls.

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

Any other items specified by the Agency.

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

SCHEDULE C : Recording and Reporting to the Agency

Table C.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	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.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
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.
Dust Monitoring	Three times a year	Ten days after the period being reported on.
Noise Monitoring	Annually	One month after end of the year being reported on.
Biological monitoring	Annually	One month after end of the year being reported on.
Any other monitoring	As they occur	Within ten days of obtaining results.

Note 1: Unless altered at the request of the Agency

SCHEDULE D : Specified Engineering Works

Specified Engineering Works
<p>Development of Phases and future Cells of the facility including preparatory works and lining.</p> <p>Landfill cap installation, including temporary and intermediate capping, installation and all other containment works (including any containment works relating to leachate control).</p> <p>Fencing and site security works.</p> <p>Installation of Waste Inspection and Waste Quarantine Areas</p> <p>Installation of Weighbridge</p> <p>Installation of wheelwash</p> <p>Installation of leachate management, detection, storage, treatment, monitoring and control systems.</p> <p>Installation of alternative drinking water supplies.</p> <p>Installation of groundwater control and/or monitoring systems.</p> <p>Surface water management works.</p> <p>Restoration and Aftercare Works.</p> <p>Nuisance control measures</p> <p>Any other works notified in writing by the Agency.</p>

SCHEDULE E : Monitoring

Monitoring to be carried out as specified below.

E.1 Dust

Dust monitoring locations shall be those as set out in Table E.1.1 and drawing no 98004-1 Revision E of the response to Article 16 notice dated 15/08/00 of Attachment J of the application.

Table E.1.1 Dust Monitoring Locations

STATION
D1
D2

Table E.1.2 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.

E.2 Noise

Noise monitoring locations shall be those as described in attachments C.8 and H.8 of the application.

Table E.2.1 Noise Monitoring Locations

STATION	
N1	N5
N2	N6
N3	N7
N4	

Table E.2.2 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."

E.3 Surface Water, Groundwater and Leachate

Surface water monitoring locations shall be those as set out in Table E.3.1 and as referred to in additional information received as part of response to Art 16 notice dated 01/09/00, and shall be referred to as S1 to S4, and of the parameters and frequencies outlined in Table E.4.4. In addition groundwater wells identified by the survey referred to in condition 4.16.2 shall be monitored.

Table E.3.1 Surface Water Monitoring Locations

STATION	
S1	S4
S2	Wells identified by survey referred to in condition 4.16.2
S3	

Groundwater monitoring locations GW1 and GW2 shall be those as set out in Table E.3.2 and as shown in Drawing no. 98004-1 Rev. E of the application. One further upstream monitoring location shall be agreed with the Agency and of the parameters and frequencies outlined in Table E.3.4.

Table E.3.2 Groundwater Monitoring Locations

STATION
GW1
GW2
To be agreed

One upstream leachate monitoring location shall be agreed in advance with the Agency those and of the parameters and frequencies outlined in Table E.3.4.

Table E.3.3 Leachate Monitoring Locations

LEACHATE MONITORING BOREHOLES
L1 To be agreed
L2 To be agreed

Two leachate monitoring boreholes shall be installed at locations to be agreed in advance with the Agency.

Table E.3.4 Water and Leachate - Parameters /Frequency

Parameter ^{Note 1}	SURFACE WATER	GROUNDWATER	LEACHATE
	Monitoring Frequency	Monitoring Frequency	Monitoring Frequency
Visual Inspection/Odour	Weekly	Quarterly	N/A
Groundwater Level	Not Applicable	Monthly	N/A
Leachate Level	Not Applicable	Not Applicable	N/A
Ammoniacal Nitrogen	Quarterly	Quarterly	Quarterly
BOD	Biannually	Not Applicable	N/A
COD	Biannually	Not Applicable	Annually
Chloride	Biannually	Quarterly	Monthly
Dissolved Oxygen	Biannually	Quarterly	
Electrical Conductivity	Biannually	Monthly	Monthly
PH	Biannually	Monthly	Monthly
Suspended Solids	Quarterly	Not Applicable	Monthly
Temperature	Biannually	Monthly	N/A
Boron	Not Applicable	Annually	N/A
Barium	Quarterly	Quarterly	N/A
Cadmium	Not Applicable	Annually	N/A
Calcium	Biannually	Quarterly	N/A
Chromium (Total)	Not Applicable	Annually	N/A
Copper	Not Applicable	Annually	N/A
Cyanide (Total)	Not Applicable	Annually	N/A
Fluoride	Not Applicable	Annually	N/A
Iron	Not Applicable	Annually	N/A
Lead	Not Applicable	Annually	N/A
List I/II organic substances ^{Note 2}	Not Applicable	Annually	N/A
Magnesium	Not Applicable	Annually	N/A
Manganese	Biannually	Quarterly	N/A
Mercury	Not Applicable	Annually	N/A
Potassium	Not Applicable	Quarterly	N/A
Sulphate	Biannually	Quarterly	Annually
Sodium	Biannually	Quarterly	N/A
Total Alkalinity	Not Applicable	Annually	N/A
Total Phosphorus / orthophosphate	Biannually	Annually	N/A
Total Oxidised Nitrogen	Not Applicable	Quarterly	Annually
Total Organic Carbon	Not Applicable	Annually	N/A
Residue on evaporation	Not Applicable	Annually	N/A
Zinc	Not Applicable	Annually	N/A
Phenols	Not Applicable	Quarterly	Annually
Faecal Coliforms ^{Note 3}	Not Applicable	Annually	N/A
Total Coliforms ^{Note 3}	Not Applicable	Annually	N/A
Biological Assessment	Annually ^{Note 4}	Not Applicable	N/A

- Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures. The testing laboratory and the testing procedures shall be agreed with the Agency in advance.
- Note 2: 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 3: If there is evidence of bacterial contamination, the analysis at up gradient and downgradient monitoring points should include enumeration of total bacteria at 22°C and 37°C and faecal streptococci.
- Note 4: Appropriate biological methods (such as EPA Q-Rating System to be used for the assessment of rivers and streams).

E.4 Meteorological Monitoring

Table E.4.1 Meteorological Monitoring:

Data to be obtained from the nearest approved Met. Eireann Station.

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 F : Emission Limits

F.1 Noise Emissions (contributed by the facility measured at position N7).

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

F.2 Dust Deposition Limits (Measured at the monitoring points indicated in Table E.1.1).

Level (mg/m ² /day) ^{Note 1}
350

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

SCHEDULE G : Waste Acceptance

G.1 Waste Acceptance

Table G.1 Waste Categories and Quantities

WASTE TYPE	MAXIMUM TONNES PER ANNUM
Construction and Demolition	14,000

G.2 Acceptable Waste

Disposal

Unless otherwise agreed with the Agency only the following inert wastes in Table G.2.1 are acceptable for disposal at the facility. In addition the waste in Table G.2.1 below must satisfy the criteria in G.3 and G.4.

Table G.2.1 Waste for Disposal

INERT OR INACTIVE WASTE	
Subsoil	Concrete
Clay	Brickwork
Stone, Rock and Slate	Natural Sand
Topsoil	

G.3 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 G.4 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.

G.4 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 (refer to Condition 5.2.3).

Parameter	Limit Value (mg/kg dry mass, not including pH value and Electrical Conductivity)	
	Total Pollutant Contents	Eluate
pH		6 –13
Electrical conductivity		300
Dry residue		25,000
Arsenic (as As)	200.0	0.75
Aluminium (as Al)		20.0
Barium (as Ba)		20.0
Lead (as Pb)	500.0	2.0
Boron (as b)		30.0
Cadmium (as Cd)	10.0	0.5
Chromium, total (as Cr)	500.0	2.0
Chromium, hexavalent (as Cr)		0.5
Cobalt (as Co)	100.0	2.0
Copper (as Cu)	500.0	10.0
Nickel (as Ni)	500.0	2.0
Mercury (as Hg)	3.0	0.05
Silver (as Ag)		1.0
Zinc (as Zn)	1500.0	20.0
Tin (as Sn)		10.0
Ammonium (as N)		40.0
Chloride (as Cl)		5000.0
Cyanide, easily liberatable (as Cn)		1.0
Fluoride (as F)		50.0

Nitrate (as N)		500.0
Nitrite (as N)		10.0
Phosphate (as P)		50.0
Sulphate (as SO ₄)		5000.0
TOC (as C)	30,000.0 ^{Note1}	500.0
Total hydrocarbons	100.0	50.0
EOX		3.0
Total PAH ^{Note2}	2.0	

Note 1: The TOC limit value is complied with as long as the loss on ignition does not exceed 5% per weight.

Note 2: For determining the total of PAH, the following 6 compounds must be added to a sum:
 flouranthene, benzoic(a)pyrene, benzoic(b)flouranthene, benzoic(k)flouranthene, benzoic(g,h,l)perylene,
 indenoic(1,2,3,-c,d)pyrene.

Signed on behalf of the Agency
 on the 11th day of December, 2000

 B. Sheehan

Authorised Person