



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

PROPOSED DECISION ON A REVIEW OF A WASTE LICENCE

Waste Licence	1-2
Register Number:	
Applicant:	Kerry County Council
Location of Facility:	North Kerry Landfill, Muingnaminnane, Tralee, Co. Kerry.

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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 Kerry County Council to carry on the waste activities listed below at North Kerry Landfill, Muingnaminnane, Tralee, Co Kerry 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 2. Land treatment, including biodegradation of liquid or sludge discards in soils:**
This activity is limited to the recirculation of leachate generated at the facility beneath the capped cells subject to the prior agreement of the Agency.
- Class 4. Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons:**
This activity is limited to the storage of leachate generated within the facility in lined leachate storage lagoons and the storage of firewater, surface water runoff and groundwater in lined surface water/groundwater retention ponds.
- Class 5. Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.**
This activity is limited to the disposal of wastes permitted by the conditions of this licence at an annual rate not exceeding 77,000 tonnes per annum
- Class 6. Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule:**
This activity is limited to the disposal of compost which is below the compost quality specification to be disposed of within the lined cells subject to the prior agreement of the Agency.
- Class 7. Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule (including evaporation, drying and calcination):**
This activity is limited to treatment of leachate at the facility and the disposal of residuals arising from leachate treatment at the facility subject to the prior agreement of the Agency.
- Class 11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.**
This activity is limited to the blending and mixing of waste prior to disposal at the facility subject to the prior agreement of the Agency.
- Class 12. Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.**
This activity is limited to the repackaging of waste deposited at the civic waste facility prior to disposal of in the lined cells at the landfill.
- Class 13. Storage prior to submission to any activity referred to in a preceding paragraph of this**

Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

This activity is limited to the storage of waste in the civic waste facility and in the waste inspection/quarantine area (subject to the requirement of Condition 5.6) prior to such waste being deposited in the landfill or the removal of such waste offsite for disposal at an appropriate alternative facility

Licensed waste recovery activities, in accordance with the Fourth Schedule of the Waste Management Act, 1996

- Class 2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes):**
- This activity is limited to the storage of paper, cardboard and waste oils at the civic waste facility, the storage of woodchips adjacent to the composting area and the composting of biodegradable waste at the composting area (subject to a maximum annual quantity of 2000 tonnes per annum for composting unless otherwise agreed in advance with the Agency).
- Class 3. Recycling or reclamation of metals and metal compounds:**
- This activity is limited to the storage of white goods at the facility prior to removal offsite and the storage of beverage cans at the civic waste facility.
- Class 4. Recycling or reclamation of other inorganic materials:**
- This activity is limited to the acceptance of glass bottles, batteries and fluorescent tubes and other inorganic materials(subject to the prior agreement of the Agency) at the civic waste facility
- Class 9. Use of any waste principally as a fuel or other means to generate energy:**
- This activity is limited to the utilisation of landfill gas (derived from the waste deposited within the lined cells) within the facility for the purpose of generating electricity and subject to the prior agreement of the Agency.
- Class 10. The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system:**
- This activity is limited to the possible future use of material composted at the facility as a landfill cover for use in site restoration subject to the prior agreement of the Agency.
- Class 11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule:**
- This activity is limited to the recovery and transport offsite for reuse of the waste types stored at the civic waste facility and the composting area and authorised by this licence.
- Class 13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced:**
- This activity is limited to the storage of waste types authorised by this licence at the civic waste facility, the composting area and associated woodchip storage area prior to use within the facility (i.e Class 11- subject to the agreement of the Agency) or transport offsite for recovery.

INTERPRETATION

Act	The Waste Management Act, 1996 (No. 10 of 1996).
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.
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
Facility Working Day	08:00 to 18:00 Monday to Friday inclusive and 08:30 to 14:00 on Saturday. For Bank Holiday weekends 08:30 to 18:00 on Saturday.
Green waste	Waste wood, plant matter and other vegetation.
Hazardous Waste	As defined in Section 4 (2) of the Act.
Household Waste	As defined in Section 5 (1) of the Act.
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.
Landfill Gas	Gases generated from the landfilled waste.
Leachate	Any liquid percolating through the deposited waste and emitted from or contained within a landfill as defined in Section 5 (1) of the Act.
LEL (Lower Explosive Limit)	The lowest percentage concentration by volume of a mixture of flammable gas with air which will propagate a flame at 25°C and atmospheric pressure.
Licence	A Waste Licence issued in accordance with the Act.
Licensee	Kerry County Council
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.
Municipal Waste	Municipal waste as defined in Section 5 (1) of the Act.

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.
Quarterly	A period of three calendar months, the first period of which commences on the date of grant of this licence
Recovery	As defined in Section 4 (4) of the Act.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments
Sludge	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment with between 2% and 14% dry matter.
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.
White Goods	Refrigerators, cookers, ovens and other similar appliances.
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 and required by this licence.
- 1.2. Waste activities shall be restricted to the area of land outlined in red on Figure B.2.1. North Kerry Landfill - Site Plan Rev.A. Aug '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.
- 1.6. This licence is being granted in substitution for the waste licence granted to the licensee on 16th July 1998 and bearing Waste Licence Register No: W001. The previous waste licence (Register No. W001) is superseded by this licence.

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

CONDITION 2 MANAGEMENT OF THE ACTIVITY

2.1 Environmental Management System

2.1.1 The licensee shall within six months from the date of grant of this licence, submit to the Agency for its agreement a proposal for an Environmental Management System (EMS) for the facility to reflect the requirements of this licence. 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 the following elements:

i. Schedule of Environmental Objectives and Targets

The Schedule shall address a five year period as a minimum and shall be reviewed and submitted annually to the Agency for its agreement. The objectives should be specific and the targets measurable.

ii. 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. 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.

iii. Corrective Action

Corrective Action Procedures shall ensure that corrective action is taken should specified requirements to this licence not be fulfilled.

iv. Awareness and Training

Awareness and Training Procedures shall identify training needs and provide appropriate training for personnel whose work is related to the licensed facility. Written records of training shall be maintained.

v. Communications

Within three months from the date of grant of this licence, the licensee shall submit for agreement to the Agency a Communications Programme to ensure that members of the public can obtain information concerning the environmental performance of the facility at all reasonable times.

2.2 Management Structure

Within three months from the date of grant of this licence, the licensee shall submit written updated 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 relevant Sanitary Authority(ies);
- 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.

2.3 Annual Environmental Report

2.3.1 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).

2.3.2 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.

2.4 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.

2.5 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and/or experience, as required and shall be aware of the requirements of this licence.

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

CONDITION 3 NOTIFICATION AND RECORD KEEPING

3.1 The licensee shall make written records of the following incidents:

- a) any nuisance caused by the activity
- b) any emission which results in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any relevant enactment;
- c) any emission which does not comply with the requirements of this licence;
- d) any trigger level specified in this licence which is attained or exceeded;
- e) any indication of pollution of the Lee and Smearlagh catchments;
- f) any indication that environmental pollution has, or may have, taken place;
- g) any occurrence with the potential for environmental pollution; and,

- h) any emergency.
- 3.2 The written record shall include all aspects described in Condition 10.7(a-e).
- 3.3 Unless otherwise instructed in writing by the Agency, the licensee shall:
- a) notify the Agency as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident;
 - b) submit the written record required by this condition to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident; and
 - c) in the event of any incident which relates to discharges to surface water, notify the South Western Regional and the Shannon Regional Fishery Boards as soon as practicable and in any case not later than 10:00am on the following working day after such an incident.
- 3.4 Should any further actions be taken after the date of written notification, as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.
- 3.5 Unless otherwise agreed by the Agency, all documentation submitted to the Agency shall:
- (a) be sent to the Agency's headquarters;
 - (b) comprise one original and three copies;
 - (c) be formatted in accordance with any written instruction or guidance issued by the Agency;
 - (d) include whatever information as is specified in writing by the Agency;
 - (e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;
 - (f) be submitted in accordance to the relevant reporting frequencies specified by this licence; and
 - (g) in the case of results of any environmental monitoring, be accompanied by a written interpretation setting out their significance.
- 3.6 Copies of all environmental monitoring data obtained by the licensee which relates to the facility shall be forwarded to the Agency at the frequencies set out in Schedule 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 4.6.
- 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 (excluding those wastes accepted at the civic waste facility for recycling/recovery) at the facility and departing from the facility. The licensee shall record the following:
- a) the name of the carrier;
 - b) the vehicle registration number;
 - c) the name of the producer(s)/collector(s) of the waste as appropriate;
 - d) a description of the waste including the associated EWC codes;
 - e) the quantity of the waste, recorded in tonnes;
 - f) the name of the person checking the load;
 - g) where loads or wastes are removed (for recovery or disposal elsewhere) or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed.
 - h) the quantity of waste leaving the facility tonnes (solid waste) and litres/cubic metres (liquid wastes comprising waste oils at the civic waste facility and any rejected loads comprising liquid waste); and,
 - i) any other information which might be required from time to time subject to prior agreement with the Agency
- 3.11 The licensee shall maintain a written record of the type and quantity, recorded in tonnes, of all wastes recovered or disposed of at the facility.
- 3.12 A written record shall be kept of each consignment of leachate removed from the facility. The record shall include the following:
- a) the name of the carrier;
 - b) the vehicle registration number
 - c) the date and time of removal of leachate from the facility;
 - d) the volume of leachate, in cubic metres, removed from the facility on each occasion;
 - e) the name and address of the Waste Water Treatment Plant to which the leachate was transported;
 - f) any incidents or spillages of leachate during its removal or transportation.
- 3.13 The licensee shall maintain a written record of all complaints relating to the operation of the activity. Each such record shall give details of the following:
- a) date and time of the complaint;
 - b) the name of the complainant;
 - c) details of the nature of the complaint;
 - d) actions taken on foot of the complaint and the results of such actions; and,
 - e) the response made to each complainant.

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

CONDITION 4 SITE INFRASTRUCTURE

4.1 The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as instructed by the Agency.

4.2 Archaeological Monitoring/Survey

4.2.1 Prior to excavations for the construction of any new elements at the facility and the development of new cells, the licensee shall submit an archaeological report, carried out by an appropriately qualified person, to the Agency. Such development works shall not commence without the prior agreement of the Agency.

4.2.2 During the excavation of peat/subsoil for site development/preparation works the licensee shall ensure that the presence of archaeological remains is monitored and recorded by a qualified and licensed (where required) 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, Dúchas and the Agency shall be informed of any such finds.

4.2.3 The scope of any archaeological investigations and /or mitigation measures shall be agreed in advance with the Agency and Dúchas. Archaeological investigation shall be undertaken by a qualified and licensed archaeologist. A report on the archaeological monitoring of development works including any features/artefacts encountered and associated site surveys shall be submitted to the Agency within one month of completion of development works.

4.3 Site Notice Board

4.3.1 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.

4.3.2 The board shall clearly show:

- a) the name and telephone number of the facility;
- b) the normal hours of opening;
- c) the name, 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.

4.4 Site Security

4.4.1 Security and stockproof fencing and gates shall be installed and maintained as shown on Drawing No.2000-017-08-01 -*Existing General Site Layout*.

4.4.2 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.
- 4.4.3 Gates shall be locked shut when the facility is unsupervised.
- 4.4.4 Within six months of the date of grant of this licence, proposals for site security including Closed Circuit Television (CCTV) shall be submitted to the Agency for its agreement.
- 4.5 Site Roads and Hardstanding
 - 4.5.1 The access roads and internal site haul roads shall be provided and maintained to the specification described and referred to in Attachment D1(b) Specification for access roads and Attachment D.1(c) *Hardstanding Areas –Site Haul Roads* unless otherwise agreed with the Agency
 - 4.5.2 Notwithstanding Condition 4.5.1, the licensee shall submit to the Agency for agreement within six months from the date of grant of this licence an updated drawing(s) showing all access roads and internal haul roads and areas of hard standing. This drawing shall distinguish between the different classes of roads and areas of hard standing within the facility and shall be accompanied by the relevant specifications.
 - 4.5.3 Traffic control within the facility shall be as described in D.6 of the waste licence application. Traffic control and signage at the facility entrance and the waste reception area shall be as shown on Figure D.1.1- *North Kerry Landfill Waste Reception Area Details* of the application unless otherwise agreed in advance with the Agency.
- 4.6 The licensee shall provide and maintain an office on the facility, at the location shown in Drawing No.2000-017-08-02 - *Proposed Final Site Layout* The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 4.7 The licensee shall provide and maintain a working telephone and facsimile machine in the office specified in Condition 4.5 above.
- 4.8 Meteorological monitoring equipment shall be maintained at the facility to comply with the monitoring requirements specified in Schedule E.5 *Meteorological Monitoring*.
- 4.9 Waste Inspection/ Quarantine Area
 - 4.9.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the location shown in Drawing No.2000-017-08-02 - *Proposed Final Site Layout* and referred to thereon as Quarantine Area.
 - 4.9.2 The licensee shall ensure that these areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be suitably and clearly segregated from each other.
 - 4.9.3 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 disposal or removal offsite.
 - 4.9.4 Surface drainage from the waste inspection/quarantine area, when not in use, shall be directed to the leachate storage lagoon via an outlet gully as shown in Drawing No.2000-017-08-06 - *Foul and Surface Water Drains* unless otherwise agreed with the Agency.

- 4.10 The licensee shall provide and maintain a weighbridge at the facility. Unless otherwise agreed with the Agency the location of the weighbridge shall be as shown on Drawing No. 2000-017-08-02 - *Proposed Final Site Layout*.
- 4.11 Wheelwash
- 4.11.1 The licensee shall maintain a wheelwash at the facility at the location shown in Drawing No.2000-017-08-02 - *Proposed Final Site Layout* unless otherwise agreed with the Agency.
- 4.11.2 The wheelwash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheelwash and disposed of at the working face or to a skip. Water drained from the wheelwash shall be directed to the leachate storage lagoon or directed to the leachate tanker for removal offsite for treatment unless otherwise agreed by the Agency.
- 4.12 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 4.13 Waste Water
- 4.13.1 The licensee shall provide and maintain a wastewater treatment system in accordance with SR6 Septic Tank Systems (NSAI 1991), (or any replacement standard) at the facility for the treatment of sewage arising on-site. Unless otherwise agreed with the Agency the location of the wastewater treatment system shall be as shown on Drawing No.2000-017-08-06 - *Foul and Surface Water Drains* and described in D.1(k) of the application.
- 4.14 Storage Areas
- 4.14.1 The licensee shall provide and maintain a bunded fuel storage area at the facility. Unless otherwise agreed with the Agency the location of the fuel storage area shall be as shown on Drawing No.2000-017-08-01 - *Existing General Site Layout* and shall be to the specification shown on Drawing No. 2000-017-08-07 - *Composting and Bunded Fuel Storage Areas*. No fuel shall be stored at any other location within the facility boundary without the prior agreement of the Agency. The storage arrangements for fuels and/or lubricants for use by contractors involved in site development works shall be agreed in advance with the Agency.
- 4.14.2 lubricants shall be stored in the site stores as shown on Drawing No.2000-017-08-01 - *Existing General Site Layout* and shall be appropriately labelled and on a bunded pallet unless otherwise agreed with the Agency.
- 4.14.3 Pesticides for use in the control of rodents and insects shall be stored in the site stores referred to in Condition 4.14.2 unless otherwise agreed with the Agency and shall be appropriately labelled.
- 4.14.4 All tank and drum storage areas shall be rendered impervious to the materials stored therein. In addition, tank and drum storage areas shall, as a minimum be bunded, either locally or remotely, to a volume not less than the greater of the following:
- (a) 110% of the capacity of the largest tank or drum within the bunded area; or
 - (b) 25% of the total volume of substance which could be stored within the bunded area.
- 4.14.5 All drainage from bunded areas shall be diverted for collection and safe disposal.

- 4.14.6 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 4.14.7 The integrity and water tightness of all the bunds, tanks and containers and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the licensee and shall be reported to the Agency within nine months of the date of grant of this licence. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. The licensee shall also submit to the Agency for its agreement in each case a written report on the storage of fuels at the facility. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 4.14.8 All tanks and containers shall be labelled to clearly indicate their contents.
- 4.15 Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, details for the storage of fridge's and other white goods at the facility and the procedures for de-gassing of CFC's from fridges.
- 4.16 Specified Engineering Works
- 4.16.1 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.
- 4.16.2 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.
- 4.16.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report for specified engineering works involving the construction of lined structures shall be submitted to the Agency within two months of the date of completion of the works. For other specified engineering works 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.
- 4.17 Landfill Lining:
- 4.17.1 The liner system for all future cells including Phase 5 development (incorporating cells 9 and 10), within the landfill area, the proposed additional leachate storage lagoon and the proposed surface water/groundwater retention

ponds shall comprise the following (or equivalent): a composite liner consisting of at minimum a basal soil/clay layer of at least 1m in thickness with a permeability of less than $1 \times 10^{-9} \text{ ms}^{-1}$ overlain by a 2mm thick high density polyethylene (HDPE) layer unless otherwise agreed in advance with the Agency.

4.17.2 For the proposed lined landfill cells a geotextile layer shall be placed over the HDPE layer. The drainage layer to be placed over the geotextile layer shall comprise a 500mm layer with minimum hydraulic conductivity of $1 \times 10^{-3} \text{ ms}^{-1}$ and shall be prewashed, uncrushed, granular, rounded stone (16-32 mm grain size). The licensee shall ensure that the drainage layer is compatible with and does not compromise the integrity the HDPE Liner. The side walls shall be designed and constructed to achieve an equivalent protection.

4.17.3 Following the placement of the liner system in all future cells, the leachate storage lagoon, and the proposed surface water/groundwater retention ponds, the licensee shall commission an independent leak detection survey of the liner system. The results of this survey and a description of any remediation measures necessary including follow up testing shall be submitted to the Agency for its agreement prior to the placement of any waste, leachate, surface and/or groundwater within the lined structures.

4.18 Leachate Management

4.18.1 Leachate management at the facility shall be carried out as described in *Attachment D4. Leachate Management* of the application and *D.4 Leachate Management* of information submitted to the Agency on 24 May 2000 in response to Article 12 compliance requirements and specified in Drawing No.2000-017-08-08 - *Leachate Collection System* unless otherwise agreed with the Agency

4.18.2 The proposed leachate collection system for Phase 5 development incorporating Cells 9 and 10 shall be as shown in Drawing No.2000-017-08-08 - *Leachate Collection System*.

4.18.3 Two leachate lagoons shall be established and maintained at the facility at the locations shown in Drawing No, 2000-017-08-02 - *Proposed Final Site Layout* and referred to thereon as Leachate Lagoon 1 and Leachate Lagoon 2 (proposed) unless otherwise agreed with the Agency.

4.18.4 The proposed second leachate lagoon shall be to the specification shown on Drawing No. 2000-017-08-10 - *Leachate Lagoon Plan* and the liner system shall be in accordance with Condition 4.17.1.

4.18.5 Prior to the construction of Leachate Lagoon 2 to the satisfaction of the Agency leachate collected in the lined cells shall only be stored in Leachate Lagoon 1 prior to transport offsite subject to Condition 4.18.8.

4.18.6 The licensee shall submit to the Agency for its agreement within six months of the date of grant of the licence leachate management procedures to be implemented at the facility when the second leachate lagoon required by Condition 4.18.3 is operational.

4.18.7 Leachate levels in the waste shall not exceed a level of 1.0m over the top of the liner.

4.18.8 The frequency of removal from the leachate lagoons by tanker shall be such that a minimum freeboard of 0.5m shall be maintained in the leachate lagoon at all times.

- 4.18.9 All leachate collection, pumping, containment structures on-site shall be inspected and certified fit for purpose on an annual basis by an independent and appropriately qualified chartered engineer. Any remedial works recommended in this report must be implemented within a time-scale to be agreed with the Agency. The tanker(s) used for the transport of leachate offsite shall also be inspected once every two years by independent appropriately qualified personnel. Records shall be maintained at the facility of the outcome of these inspections
- 4.18.10 Leachate stored in the leachate storage lagoon shall be disposed of by tankering off-site in fully enclosed road tankers and discharging to either Castleisland, Ballybunion or Tralee Waste Water Treatment Plants unless otherwise agreed with the Agency.
- 4.18.11 The licensee shall maintain written procedures for the removal of leachate by tanker from the facility for treatment. These procedures shall be updated to take into account the operation of a second leachate lagoon at the facility.
- 4.18.12 Within six months of the date of grant of the licence an assessment of the feasibility of undertaking leachate treatment at the facility shall be submitted to the Agency for agreement. In the event that leachate treatment is assessed to be a feasible option the assessment should include details of the proposed leachate treatment system including its operational criteria, the proposed standards of treated leachate and a timescale for its construction and commissioning.
- 4.18.13 Within six months of the date of grant of the licence a SCADA System for the control of leachate management including leachate pumping, leachate levels (within cells and the leachate lagoons) and leachate recirculation shall be provided and maintained at the facility unless otherwise agreed with the Agency. This system shall be as shown on Drawing No.2000-017-03-01 - *SCADA System* unless otherwise agreed with the Agency. The SCADA system shall be extended to incorporate future modifications and/or extensions to the leachate management system.

4.19 Leachate Recirculation

- 4.19.1 the leachate recirculation network shall be as shown in Drawing No.2000-0170-08-09 - *Leachate Recirculation System* unless otherwise agreed with the Agency. The leachate recirculation network shall be extended progressively to the capped cells subject to the prior agreement of the Agency.
- 4.19.2 Recirculation of leachate or other contaminated water shall not be undertaken without the prior agreement of the Agency and shall only be undertaken within cells which have been lined and capped to the satisfaction of the Agency.
- 4.19.3 Within six months of the date of grant of this licence the licensee shall submit to the Agency for agreement procedures for the operation of the leachate recirculation system at the facility. This shall include as a minimum the following:
- (i) a description of the criteria used to determine when leachate recirculation is undertaken;
 - (ii) the infrastructure, the controls and the maintenance programme associated with the leachate recirculation system;
 - (iii) the measures in place or proposed to monitor the volume of leachate recirculated; and,

- (iv) and the measures in place or proposed to determine the effectiveness of leachate recirculation in assisting the biodegradation of waste within the capped cells and its impact on leachate quality.

4.20 Landfill Gas Management:

4.20.1 Unless otherwise agreed with the Agency, landfill gas management at the facility shall be carried out as described in Attachment D.5 Landfill Gas Management and Appendix 2 Landfill Gas Management Plan of the application and information submitted to the Agency dated 24 May 2000 in D.5 Landfill Gas Management and specified in Drawing No. 2000-017-08-04 – *Phase 5 Detail Layout*.

4.20.2 Landfill Gas Flare

- (i) The existing open gas flare unit shall be upgraded to an enclosed flare unit. An enclosed flare shall be established and maintained at the facility within six months of the date of grant of the licence unless otherwise agreed with the Agency. The Flare Unit shall be at the location shown on Drawing No. 2000-017-08-02 - *Proposed Final Site Layout* and referred to thereon as Flare. The specification shall be as described in D.5 Landfill Gas Management of information submitted to the Agency on 24 May 2000 in response to the Article 12 compliance requirements unless otherwise agreed with the Agency.
- (ii) The gas collection system for the capped cells shall be as shown in Drawing No. 2000-017-08-04 - *Phase 5 Detail Layout* unless otherwise agreed by the Agency. This system shall be extended to the future capped cells subject to the prior agreement of the Agency.
- (iii) Flare unit efficiency shall be tested within six months of the date of commissioning of the enclosed flare unit and once every three years thereafter. A report on this testing shall be submitted to the Agency for its agreement.

4.20.3 Within twelve months of the date of grant of this licence, a proposal for the utilisation of landfill gas as an energy resource shall be submitted to the Agency for its agreement.

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

4.20.5 Any vents installed to facilitate the passive venting of landfill gas shall be fitted with an effective activated carbon filter

4.20.6 All buildings constructed on the facility shall have regard to the guidance given in the Department of Environments 1994 publication "Protection of New Buildings and Occupants from Landfill Gas" and any subsequent revisions.

4.21 Capping

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

- top soil (150 -300mm);
- subsoils, such that total thickness of top soil and subsoils is at least 1m;
- drainage layer of 0.5m thickness having a minimum hydraulic conductivity of 1×10^{-4} m/s;

- compacted mineral layer of a minimum 0.6m thickness with a permeability of less than 1×10^{-9} m/s or a geosynthetic material (e.g. GCL) or similar that provides equivalent protection; and
- gas collection layer of natural material (minimum 0.3m) or a geosynthetic layer.

4.21.2 Intermediate capping prior to placement of the final capping system on completed cells will consist of a minimum of 500mm of suitable inert material agreed in advance with the Agency. This will also apply to the interface between the exposed face of a completed cell and a new cell. The intermediate cap will be examined in a weekly basis and any defects repaired to the above specification.

4.21.3 All future filled cells shall be permanently capped to the relevant specifications in accordance with condition 4.21.1 within twelve months of the cells having been filled to the required level. Previously filled cells (within the operational area of the landfill and any other cells filled to the final level prior to the date of grant of this licence), shall be permanently capped in accordance with Condition 4.21.1 within twelve months of the date of grant of this licence unless otherwise agreed by the Agency.

4.21.4 The licensee shall provide a six monthly report to the Agency on the quantity of capping materials stockpiled at the facility. In the event that the stockpile fails to contain the requisite volume of capping materials for any subsequent six month period (up to the date of completion of final restoration), the report required by this condition shall contain a proposal for the Agency's agreement for alternative sources of capping materials or for the utilisation of geosynthetic materials.

4.22 Construction Schedule/ Sequence

4.22.1 Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement a programme outlining the proposed construction, operation restoration and closure schedule and sequence (including timescales) incorporating the requirements of this licence. This programme shall include appropriately scaled drawings and unless otherwise agreed with the Agency shall reflect the final site layout as shown on Drawing No. 2000-017-08-02 - *Proposed Final Site Layout*.

4.22.2 The licensee shall within nine months from the date of grant of this licence submit to the Agency for its agreement a report on the geological and hydrogeological investigation for the remainder of the proposed area to be landfilled as shown on Drawing No. 2000-017-08-02 - *Proposed Final Site Layout*. The scope of the investigations shall be submitted in advance to the Agency for its agreement

4.23 The licensee shall provide a six monthly report to the Agency on the quantity of capping materials stockpiled at the facility. In the event that the stockpile fails to contain the requisite volume of capping materials for the next twelve months, the report required by this condition shall contain a proposal for the Agency's agreement for alternative sources of capping materials or for the utilisation of geosynthetic materials.

4.24 Surface Water Management

4.24.1 Unless otherwise agreed with the Agency the surfacewater/groundwater retention ponds as shown on Drawing No. 2000-017-08-02 - *Proposed Final Site Layout* and referred to therein as Northern Surface Water Retention pond and Southern Surface Water Retention pond shall be constructed and commissioned within nine months of the date of grant of this licence.

4.24.2 The liner system for the surface water/groundwater retention ponds shall comprise the appropriate elements of the liner system as specified in Condition 4.17.1.

4.24.3 Within six months of the date of grant of this licence the licensee shall submit to the Agency for its agreement an updated surface water management plan for the control of surface water run off from the facility during construction, operation and restoration. This shall include proposals for the following:

- (i) the ongoing development of a surface water drainage network for the facility including areas of hard standing and the proposed future phases of development and restoration;
- (ii) the criteria which will trigger and the controls to facilitate the shutting off of the discharges from the proposed surface/groundwater water retention pond the in the event of contamination;
- (iii) details of surface water control relating to run-off water arising from cap and restoration areas; and,
- (iv) design details and a drawing showing the location of oil-water interceptor(s) within the surface water drainage system associated with areas of hardstanding within the facility.

4.25 Groundwater Management

4.25.1 Within six months of the date of grant of this licence, the licensee shall submit to the Agency, for its agreement, a groundwater management plan (including any proposed modifications) to ensure the ongoing protection of the groundwater resources in the vicinity of the facility during site development works , operation, restoration and closure. This plan shall describe the existing and any proposed modifications to groundwater management at the facility. Appropriately scaled drawings of the infrastructure/controls associated with groundwater management, and relevant calculations and assumptions shall be included in this plan.

4.26 Fire Control Fire Control/ Fire water Retention

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

4.26.2 The precautions and actions outlined in Attachment F.2 Fire Control and in the current version of the Emergency Response Procedures operating at the facility and agreed by the Agency and shall be applied to prevent the occurrence of fires and to control any incidents involving a fire at the facility.

4.27 Civic Waste Facility

4.27.1 The licensee shall maintain the Civic Waste Facility at the location shown in Drawing No. 2000-017-08-06 - *Foul and Surface Water Drains – Reception/ Civic Amenity/ Quarantine and Fuel Storage Areas* unless otherwise agreed with the Agency.

4.28 Compost facility

4.28.1 The licensee shall maintain a Composting Area and associated infrastructure at the location shown on Drawing no. 2000-017-08-01 - *Existing General Site Layout* and referred to thereon as existing Wind-Row Composting Slab and Wood Chip Storage Area. The Composting area dimensions and layout details shall be as shown in Drawing no. 2000-017-08-07 - *Composting and Bunded Fuel*

Storage Areas and Figure 2.5.2. of the EIS accompanying the application unless otherwise agreed with the Agency.

- 4.28.2 Surface runoff from the Composting Area (including the proposed extension) shall be directed via a pump sump to the leachate storage lagoon(s) only as shown on Drawing No.2000-017-08-07 - *Composting and Bunded Fuel Storage Areas*. The pump sump shall be to the specifications as shown on this drawing and referred to thereon as Detail of Pump Sump at Composting Area.
- 4.28.3 Within six months of the date of grant of this licence, the licensee shall submit to the Agency procedures for the operation of the composting area(s) at the facility. These proposals shall include as a minimum waste acceptance procedures, nuisance control, surface water management, monitoring of composting process, monitoring of leachate generated within the compost area, monitoring of end product of composting process and proposed end uses incorporate the proposed extension to the composting slab as shown on Drawing No.2000-017-08-07 - *Composting and Bunded Fuel Storage Areas*.
- 4.28.4 Netting shall be maintained around the perimeter of the existing composting slab and shall be extended to incorporate the proposed extension to the composting area prior to its commissioning.

4.29 Soil Storage

- 4.29.1 Within six months of the date of grant of the licence a programme for the stripping, and storage of Soils /peat and overburden for the future phases of development of the facility shall be submitted to the Agency for agreement. This programme shall detail the volumes of materials proposed excavated during cells development and the proposed end uses of the excavated material. The storage of soils shall be in such a manner to maximise the preservation of the soil structure for future use as restoration material within the facility.

4.30 SCADA System

- 4.30.1 Unless otherwise agreed with the Agency the licensee shall within six months of the date of grant of the licence install and commission a SCADA System at the facility as described in the response to K.2 of information submitted in response to the Article 12 compliance requirements and as shown in Drawing No. 2000-017-03-01 - *SCADA System* . This system shall incorporate the proposed elements outlined in the information referred to above and as required by the conditions of the licence.

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

CONDITION 5 WASTE MANAGEMENT

- 5.1. Apart from waste oils, batteries and fluorescent tubes for storage at the civic waste facility prior to recovery off-site, no hazardous waste, liquid waste, animal by-products or remains, sludges or loads comprising mainly of loose plastic shall be accepted at the facility.
- 5.2. Subject to Condition 5.1, and the requirements of Condition 5.4.1, only those waste types and quantities listed in Schedule H : Waste Acceptance and Tables E.1.1, E.1.2, E.1.3 and E.1.4 shall be recovered or disposed of at the facility unless the prior agreement of the Agency has been obtained.
- 5.3. Waste shall only be accepted at the facility between the hours of 08:30 and 17:00 Monday to Friday inclusive and from 09:00 to 13:00 on Saturdays unless otherwise agreed in advance with the Agency. During bank holiday weekends waste acceptance on Saturdays shall be from 09:00 to 17:00. Access to the facility by members of the public shall be restricted to the Civic Waste Facility. Composting waste and white goods and household waste delivered to the facility by members of the public will be temporarily stored at the Civic Waste Facility prior to transfer to the appropriate location by the end of the working day unless otherwise agreed with the Agency.
- 5.4. Waste Acceptance Procedures
 - 5.4.1. Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement detailed written updated procedures for the acceptance and handling of all wastes. These procedures shall incorporate waste acceptance, handling and storage procedures for the active tipping area, civic waste facility, the whites goods storage area and at the Composting area. Prior to this waste acceptance shall be carried out in accordance with the current waste acceptance procedures operating at the facility as agreed by the Agency.
- 5.5. Waste Characterisation
 - 5.5.1. Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement detailed written procedures for the acceptance of waste (to distinguish between inert, non-hazardous and hazardous wastes) and shall outline the procedures for dealing with hazardous wastes.
- 5.6. A record of all inspections of all waste loads directed to the Waste Inspection/Quarantine Area for inspection shall be maintained. All wastes for disposal at the active tipping area 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 recovery or disposal at this facility shall be removed for recovery or disposal at an appropriate alternative facility. Such waste shall be stored in the Waste Inspection/Quarantine Area only and may be stored for a maximum of forty-eight- hours.
- 5.7. The quantity of wastes to be accepted for disposal at the landfill, shall not exceed 75,000 tonnes per annum, unless otherwise agreed in advance with the Agency. In addition, 2,000 tonnes per annum of biodegradable waste for composting may be accepted at the facility, unless otherwise agreed with the Agency.
- 5.8. Wastes shall not be deposited in any cell or part of the landfill without the leachate management and where appropriate the landfill gas management infrastructure required by this licence in place and without the prior agreement of the Agency.

- 5.9. Notwithstanding Condition 5.6, apart from waste stored temporarily at the Civic Waste Facility, the White Goods Storage Area, the Composting area and the Waste Quarantine/ Inspection Area waste for disposal shall only be deposited in the cells within the landfill footprint as shown on Drawing No.2000-017-08-02 Rev.A (dated 02.05.2000) *Proposed Final Site Layout* unless otherwise agreed or instructed by the Agency.
- 5.10. 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.
- 5.11. The working face of the operational cell and any other exposed waste within the lined cells shall, at the end of each day, be covered with material so as to minimise the potential for any nuisances to occur and such that no waste is exposed. At the end of the working week a minimum of 150mm of inert material to a specification agreed in advance with the Agency shall be placed over the waste. 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.
- 5.12. 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.
- 5.13. Scavenging shall not be permitted at the facility.
- 5.14. 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.
- 5.15. Unless otherwise agreed with the Agency, waste once deposited and covered shall not be excavated, disturbed or otherwise picked over with the exception of works associated with the construction, installation of the leachate management system, the landfill gas management system and the occurrence of a fire within the waste.
- 5.16. No smoking shall be allowed on the facility other than in the site office as shown on Drawing No. 2000-017-08-02 - *Proposed Final Site Layout*.
- 5.17. Civic Waste Facility
- 5.17.1. Waste to be accepted at the civic waste facility shall be limited to domestic waste, paper and cardboard, glass, metal, waste oils (excluding waste cooking oils and fats), batteries, fluorescent tubes, white goods, biodegradable waste for composting, only unless subject to the prior agreement of the Agency. These waste types shall be stored in separate appropriate containers within the civic waste facility. All containers shall be clearly labelled to indicate their contents.
 - 5.17.2. Separate skips or other suitable containers shall be provided for the acceptance of household waste for disposal at the landfill and biodegradable waste destined for composting at the civic waste facility.

- 5.17.3. Household waste deposited at the civic waste facility destined for landfilling shall be deposited at the working face prior to the end of the working day and shall be covered in accordance with condition 5.11.
 - 5.17.4. Biodegradable waste destined for composting deposited at the civic waste facility shall be shall be transferred prior to the end of the working day to the composting area/compound
 - 5.17.5. Waste sent off-site for recovery or disposal shall only be conveyed to a waste contractor(s) agreed in advance by the Agency. The ultimate recovery or disposal facility for all wastes including material excavated during site development work shall be transported 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.
- 5.18. Composting Area
- 5.18.1. Unless otherwise agreed with the Agency, only source segregated organic (i.e. kitchen and garden) waste, green waste and compost shall be used in the operation of the organic waste composting facility.
 - 5.18.2. The bulking agent to facilitate the composting process shall be bark mulch or other such similar bulking material agreed in advance with the Agency.
 - 5.18.3. All wastes accepted to the organic waste composting unit shall be introduced into the compost process within 24 hours of delivery.
 - 5.18.4. The compost windrows shall be covered with Top Tex Cover or equivalent at all times except when biodegradable waste including bulking agents are being added to the windrows, when moisture content of the windrow is being supplemented or when the compost is being mixed.
 - 5.18.5. No waste shall be left uncovered in the composting area from the close of operation on Saturday until Monday morning opening unless otherwise agreed with the Agency.
 - 5.18.6. The licensee shall maintain a daily written record of temperature and turning of the compost.
 - 5.18.7. Unless otherwise agreed with the Agency, compost shall meet the quality criteria set out in Schedule G: Compost Quality.
- 5.19. Unless otherwise agreed with the Agency, within six months of the date of grant of this licence, proposals for the following at the facility shall be submitted to the Agency for its agreement:
- 5.19.1. the separation of recyclable materials from the waste;
 - 5.19.2. the recovery of Construction and Demolition Waste;
 - 5.19.3. the recovery of metal waste and white goods including written procedures for degassing of CFC's from refrigerators;
 - 5.19.4. the recovery of commercial waste, including cardboard; and
 - 5.19.5. inert waste to be used for cover/restoration material at the facility.

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. The measures and infrastructure as described in *Attachment F.3 Litter Control* of the application shall be applied to control litter at the facility.
 - 6.3.2. Notwithstanding Condition 6.3.1 prior to the disposal of any waste in any cell litter fencing shall be installed and maintained around the perimeter of the active tipping area to the specifications shown in Figure 2.6.4 *EIS Review Miscellaneous Details – Details of Litter Fencing* of the EIS accompanying the application.
 - 6.3.3. All litter control infrastructure shall be inspected on a daily basis and the licensee shall remedy any defect in the litter netting as follows:
 - a) a temporary repair shall be made by the end of the working day; and,
 - b) a repair to the standard of the original netting shall be undertaken within three working days or as otherwise agreed with the Agency.
 - 6.3.4. 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.
 - 6.3.5. 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 where relevant, 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 10:00am 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. Prior to exiting the facility, all waste vehicles, vehicles delivering clay and other materials for development and vehicles removing excavated material offsite shall use the wheelwash required by Condition 4.11.
- 6.7. Dust Control

- 6.7.1. The dust control measures outlined in F.5 Road Cleansing of the application shall be implemented to control dust at the facility unless otherwise agreed in advance with the Agency.
- 6.7.2. 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 during site development, operation and restoration.
- 6.8. Bird Control
- 6.8.1. Unless otherwise agreed in advance with the Agency, the bird control measures outlined in *Attachment F1. Bird Control* and in information submitted to the Agency on 24 May 2000 in response to the Article 13 compliance requirements under Environmental Nuisances - 3 shall be applied at the facility for the control of birds. The use of gas operated bird scaring devices shall be minimised and in any event shall not be used outside of the hours of operation of the facility unless agreed in advance with the Agency.
- 6.8.2. Within six months from the date of grant of this licence the licensee shall submit to the Agency for its agreement, an assessment of the effectiveness of the bird control measures at the facility. This assessment shall include, where considered necessary:
- a) proposals for additional bird control measures;
 - b) modifications to the existing bird control measures;
 - c) method for assessing the effectiveness of such additional measures;
 - d) a modified bird control programme to be applied at the facility taking into account the above
 - e) timescales for the implementation of such measures.
- 6.8.3. The licensee shall implement the bird control measures referred to in Condition 6.8.1 and any modifications to these measures required by Condition 6.8.2 such that birds are prevented from gathering on and feeding at the facility. The bird control measures shall be maintained at the facility on a daily basis until the waste activities cease and all the waste is capped to the written satisfaction of the Agency. A written record of the daily bird control activities and the numbers and species of birds observed at the facility shall be kept.
- 6.9. Unless otherwise agreed in advance with the Agency the licensee shall apply the vermin and fly control measures outlined in *Attachment F.7 Vermin Control* of the application. Notwithstanding these measures, the licensee shall submit to the Agency for its agreement a programme for the prevention, control and eradication of vermin and fly infestations at the facility. These proposals should include as a minimum, details on the operational practices employed at the facility to control vermin, rodenticide(s) and insecticide(s) to be used, the mode and frequency of application, operator training, the criteria which dictate when the control/eradication measures are applied and the measures to contain sprays within the facility boundary.
- 6.10. Unless otherwise agreed in advance with the Agency the measures outlined in *Attachment F.4 Odour Control* of the application, *Section 3.3.3 Air - Odours* and in information submitted to the Agency on 24 May 2000 in response to the Article 13 compliance requirements under Environmental Nuisances - 2 shall be applied at the facility to minimise the potential for nuisances due to odours to emanate from the activities at the facility.

- 6.11. The licensee shall ensure that the activities shall be carried out in a manner such that odours do not result in significant impairment of, or significant interference with amenities or the environment beyond the facility boundary.
- 6.12. The licensee shall ensure that birds, vermin (rodents and flies) and dust do not give rise to nuisance at the facility or the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.

Reason: To provide for the control of nuisance.

CONDITION 7 EMISSIONS AND ENVIRONMENTAL IMPACTS

- 7.1. No specified emission from the facility shall exceed the emission limit values set out in Schedule 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. There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise sensitive location.
- 7.5. Landfill Gas
- 7.5.1. The following are the trigger levels for landfill gas emissions from the facility measured in any service on, at or immediately adjacent to the facility and/or at any other point located outside the body of the waste:
- a) Methane, greater than or equal to 1.0% v/v; and
 - b) Carbon dioxide, greater than or equal to 1.5% v/v.
- 7.5.2. The landfill gas flare unit required in accordance with Condition 4.20.2 shall meet the emission limit values specified in Schedule F: *Emission Limits* from the date of commissioning.
- 7.5.3. The concentration limits for emissions to atmosphere specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of :-
- a) in the case of landfill gas flare:
Temperature 273 K, pressure 101.3 kPa, dry gas at 3% oxygen; and
 - b) in the case of landfill gas combustion plant:
Temperature 273 K, pressure 101.3 kPa, dry gas at 5% oxygen.
- 7.6. Landfill Gas

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

7.6.1.1. Continuous monitoring

- (i) No 24 hour mean value shall exceed the emission limit value.
- (ii) 97% of all 30 minute mean values taken continuously over an annual period shall not exceed 1.2 times the emission limit value.
- (iii) No 30 minute mean value shall exceed twice the emission limit value.

7.6.1.2. Non-Continuous Monitoring

- (i) For any parameter where, due to sampling/analytical limitations, a 30 minute samples is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.
- (ii) For all other parameters, no 30 minute mean value shall exceed the emission limit value.
- (iii) For flow, no hourly or daily mean value shall exceed the emission limit value.

7.7. Emissions to Surface Water

7.7.1. Emissions to surface water from the facility shall only be made to the surface water drainage system at the locations designated by emission points SW1, SW2 and SW5 respectively shown on Drawing No.2000-017-08-11 - *Monitoring Point Locations unless otherwise agreed with the Agency.*

7.7.2. Following commissioning of the surface water retention ponds required by Condition 4.24.1 surface water run off at the facility shall be diverted to the lined surface water retention ponds prior to discharge from the facility at the points referred to in Condition 7.7.1 above.

7.7.3. There shall be no discharge of leachate to surface water.

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

7.8. There shall be no direct emissions to groundwater.

7.9. Disposal of Leachate

7.9.1. All leachate tankered from the facility shall be transported via tanker to Castleisland, Ballybunion or Tralee wastewater treatment plants and disposed of there unless otherwise agreed in advance with the Agency. Permission for the disposal of leachate at the above mentioned waste water treatment plants shall be obtained from the relevant Sanitary Authority on an annual basis. The quantity of leachate disposed of shall be subject to the prior agreement of the Sanitary Authority. Disposal procedures for the leachate at the treatment plant shall be in accordance with any written requirements of the Sanitary Authority.

7.9.2. The integrity of tanker(s) used for the transport of leachate offsite shall be tested on an annual basis and the records of this testing shall be maintained at the site office.

- 7.9.3. Leachate shall not be discharged to surface water drainage system at the facility.
- 7.9.4. Leachate shall not be discharged directly to groundwater.
- 7.10. There shall be no other discharge or emission of environmental significance.

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

CONDITION 8 RESTORATION AND AFTERCARE

- 8.1. An updated Restoration and Aftercare Plans for the facility shall be submitted to the Agency for its agreement within six months of the date of grant of this licence. The Restoration Plan shall take into account the revised site layout shown on Drawing No. 2000-017-08-02 - *Proposed Final Site Layout* and the proposed restoration profiles shown on Figure 2.6.2- *EIS Review Restoration Profiles* and the Final Ground Profiles shown on Figure 2.6.3 *EIS Review Existing and Final Ground Profiles*. In preparing the Plan the licensee shall have regard to the requirements of the Landfill Directive (1999/31/EC) and the guidance published in the Agency's *Landfill Manual : "Landfill Restoration and Aftercare"*. A schedule detailing the various stages of restoration, including timescales, shall be included in the Plan.
- 8.2. The Restoration and Aftercare Plan required under Condition 8.1 shall include for agreement the following:
- 8.2.1. a proposal for perimeter planting to facilitate the long term screening of the facility;
 - 8.2.2. a detailed drawing showing the proposed final profile of the facility; and
 - 8.2.3. details of landfilling and restoration to achieve the final landform.
- 8.3. The final profile of the facility shall be in accordance with the Restoration and Aftercare Plan agreed with the Agency.
- 8.4. Completed areas of the landfill shall be profiled so that no depressions exist in which water may accumulate. Any depressions arising after profiling shall be rectified by the emplacement of suitable capping or restoration materials.
- 8.5. The restoration of the landfill site shall be completed within two years of the final cessation of waste being deposited at the landfill in accordance with the conditions of this licence unless otherwise agreed with the Agency.
- 8.6. 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. No asbestos waste shall be present within 2.5 metres of the final surface levels.

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. Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement an updated appropriately scaled drawing(s) showing the location of all the monitoring locations that are stipulated in this licence. This shall include any additional monitoring locations required to fulfil this licence. This shall be accompanied by a register of unique coded reference numbers and twelve figure grid references for each monitoring location.
- 9.3. Within six months from the date of grant of this licence, the licensee shall extend the monitoring programme at the facility to include the following:
 - 9.3.1. The extension of the leachate monitoring programme within the lined cells to incorporate the proposed Phase 5 development.
 - 9.3.2. The extension of the monitoring programme for detection of off-site migration of landfill gas to incorporate the proposed Phase 5 development.
 - 9.3.3. The monitoring infrastructure required in accordance with Condition 9.3.1 and 9.3.2 shall be in place prior to the deposit of waste in cells 9 and 10. This monitoring programme shall be extended to incorporate future phases of development subject to the prior agreement of the Agency.
- 9.4. Within six months from the date of grant of this licence, the licensee shall extend the dust, noise, surface water and groundwater monitoring programmes at the facility to take into account the proposed future development of the site as shown in Drawing No. 2000-017-02 - *Proposed Final Site Layout*. Subject to the Agency's agreement and the agreement of the owners the agreed monitoring locations shall be included in the monitoring programme set out in *Schedule E: Monitoring*.
- 9.5. Within six months of the date of grant of this licence, the licensee submit a proposal to the Agency for its agreement concerning the monitoring of emissions from the proposed closed flare unit as required by *Schedule E.2 Landfill Gas Flare and Landfill Gas Combustion Plant* to the Agency for its agreement.
- 9.6. The licensee shall within three months of the date of grant of this licence submit a proposal to the Agency for agreement for the monitoring and assessment of odour emissions arising from the facility. The proposals shall include monitoring of odour emissions at the nearest residential property(ies).
- 9.7. Within three months of the date of grant of this licence, the applicant shall submit to the Agency for its agreement proposals for continuous monitoring of water in the surface water/ groundwater retention ponds. These proposals shall include the criteria/trigger levels which will determine when the outlet from these ponds shall be closed. Such continuous monitoring shall, as a minimum, include conductivity, pH and TOC and shall be carried out on the inlet to the stormwater retention pond. Subject to the agreement this monitoring shall be included in the monitoring programme set out in *Schedule E: Monitoring*.
- 9.8. The licensee shall within three months from the date of grant of this licence, submit to the Agency a drawing showing the location of the following:
 - a) the nearest private well downgradient and within 1 kilometre of the western and eastern facility boundary.

- b) all established groundwater and surface water supplies used for animal drinking within 500m of the facility boundary.

Subject to the Agency's agreement and the agreement of the owners these shall be included in the monitoring programme set out in Schedule E: Monitoring.

- 9.9. The licensee shall within six months of the date of grant of this licence extend the biological monitoring of the Lee and Smearlagh catchments to incorporate a fisheries assessment (with particular reference to salmonids) the Lee and Smearlagh catchments.
- 9.10. Within three months of the date of grant of this licence, the licensee shall submit a report on the present state of monitoring infrastructure. Any damaged monitoring infrastructure must be replaced within six months of the date of grant of licence.
- 9.11. The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and off-site points as required by the Agency. All ditches and drains located around the perimeter of the facility are to be kept clear such that monitoring can be carried out successfully.
- 9.12. 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.
- 9.13. Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturers instructions (if any) so that all monitoring results accurately reflect any emission or discharge or environmental parameter.
- 9.14. 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.
- 9.15. Within two months of the date of grant of this licence the following information shall be submitted to the Agency for its agreement: the names, qualifications and a summary of relevant experience of all persons that will 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.
- 9.16. An updated topographical survey including the void space shall be carried out within six months of the date of grant of this licence. This survey shall take into account the revised site layout shown on Drawing No.2000-017-08-02 - *Proposed Final Site Layout*. It shall be repeated annually thereafter. The survey shall be in accordance with any written instructions issued by the Agency.
- 9.17. 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.
- 9.18. Within six months of the date of grant of this licence, and annually thereafter, the licensee shall carry out a stability assessment of the side slopes of the facility (including the perimeter embankment of the lined cells, the leachate storage lagoons and the surface water/groundwater retention ponds) and provide a report on that assessment to the Agency. A report on the results of this assessment including a description of any remedial measures undertaken or proposed to be undertaken shall be submitted to the Agency for agreement .

- 9.19. Unless otherwise agreed with the Agency, the licensee shall undertake monthly inspections of the landfill for any evidence of slippage or failure of the perimeter embankment of the lined cells. Written records of these inspections shall be maintained at the facility office.
- 9.20. All landfill gas monitoring equipment used for monitoring landfill gas under the requirements of this licence shall be certified as being intrinsically safe.
- 9.21. An assessment of the ecology of the adjoining habitats shall be undertaken within twelve months of the date of grant of this licence and shall be submitted to the Agency for agreement. This assessment shall be repeated every two years thereafter. The scope, content and details of the contractor(s) carrying out the assessment shall be submitted to the Agency for its agreement.
- 9.22. The licensee shall within six months of the date of grant of this licence, develop and establish a Data Management System for collation, archiving, assessing and graphically presenting the environmental monitoring data generated as a result of this licence.

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

CONDITION 10 CONTINGENCY ARRANGEMENTS

- 10.1. The licensee shall, within six months of the date of grant of this licence, submit an updated 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 burned or otherwise combusted at 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 (identified in accordance with Condition 9.8) and livestock water supplies indicates that the facility is having a significant adverse effect 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. In the event that monitoring should indicate contamination of the water in the surface waster/ groundwater retention ponds, the outlet from the pond shall be closed and the contaminated water shall be pumped to the leachate lagoon until such time as the source of the contamination has been identified and appropriate measures introduced to prevent further contamination of suffice water.
- 10.7. Unless otherwise notified in writing by the Agency, in the event that any monitoring, sampling, complaints or observations indicate that an incident has, or may have, taken place, the licensee shall immediately:
 - a) identify the date, time and place of the incident;
 - b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission;
 - c) isolate the source of the emission;
 - d) evaluate the environmental pollution, if any, caused by the incident;
 - e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - f) provide a proposal to the Agency for its agreement within one month to:
 - i) identify and put in place measures to avoid reoccurrence of the incident; and
 - ii) identify and put in place any other appropriate remedial action.
- 10.8. In the event that monitoring of the slide slopes of the facility indicate that there may be a risk of slope failure, this will be treated as an incident and a proposal for remediation

action submitted to the Agency for its agreement within one month of the date of the monitoring being carried out.

- 10.9. The licensee shall carry out an updated 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 Kerry County Council shall be consulted by the licensee during this assessment.
- 10.10. Within six months of the date of grant of this licence and prior to the commissioning of the works associated with Phase 5 development works and future phases of development of the facility a HAZOP Assessment of the facility, or part thereof, shall be carried out by an independent third party whose identity shall be agreed in advance with the Agency. This HAZOP Assessment shall pay particular regard to any accidents, emergencies, or other incidences which might occur on the facility and their potential effect on the environment and on the neighbours of the facility and on adjoining landuses. The Assessment shall include recommendations both to minimise the number of any accidents, emergencies or incidences which might occur and to minimise the impacts of any such events. These recommendations shall be complied with by the licensee. The scope of the Assessment shall be agreed with the Agency in advance.

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 £18,621 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 from a date to be set by the Agency establish and maintain a fund, or other form of approved security, that is adequate to assure the Agency that the licensee is at all times financially capable of implementing the Restoration and Aftercare Plan required by Condition 8.1. The type of fund and means of its release/recovery shall be agreed by the Agency prior to its establishment.

11.2.2 The fund shall be maintained in an amount always sufficient to underwrite the current Restoration and Aftercare Plan.

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

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

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

Where:

Cost = Revised restoration and aftercare cost

ECOST = Existing restoration and aftercare cost

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

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

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 and recovered during the reporting period and each previous year.

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

Methods of deposition of waste.

Summary report on emissions.

Summary of results and interpretations of environmental monitoring, including plans and any updates of all monitoring locations including 12 digit grid references. This must include the following:

- Summary of monitoring results for key leachate parameters;
- Comparison of monitoring results against baseline data and relevant standards;
- Graphical presentation of the trends in the concentration of key leachate parameters; and,
- An assessment and explanation of the significance of the results and trends detected

Resource and energy consumption summary.

Proposed development of the facility and timescale of such development.

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

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

Report on restoration of completed cells/ phases.

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

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

Estimated annual and cumulative quantity of indirect emissions to groundwater.

Monthly water balance calculation and interpretation.

Schedule of Environmental Objectives and Targets for the forthcoming year.

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

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

Tank, pipeline and bund testing and inspection report.

Reported incidents and Complaints summaries.

Review of Nuisance Controls.

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

Any other items specified by the Agency.

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

SCHEDULE 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.
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.
Liner system Leak Detection Survey	As they arise	Prior to the placement of any waste in newly developed cells.
HAZOP Assessment	As they arise	Prior to the commissioning of future development of the facility.
Monitoring of landfill gas	Quarterly	Ten days after end of the quarter being reported on.
Landfill Gas Flare /Utilisation Plant	Quarterly	Ten days after end of the quarter being reported on.
Landfill Gas Flare Unit efficiency assessment	Every three years	Four months from the date of grant of licence and one month after the end of the three year period being reported on.
Monitoring of Surface Water Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Groundwater Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of surface water/groundwater retention ponds	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Leachate	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of composting	Quarterly	Ten days after end of the quarter being reported on.
Meteorological Monitoring	Annually	One month after end of the year being reported on.
Dust Monitoring	Three times a year	Ten days after the period being reported on
Noise Monitoring	Annually	One month after end of the year being reported on.
Ecological assessment of adjoining habitats	Every two years	Within twelve months from the date of grant of licence and one month after the end of the two year period being reported on.
Biological Monitoring	Annually	One month after end of the year being reported on.
Slope Stability	Annually	Six months from the date of grant of licence and one month after the end of each year thereafter
Topographical Survey	Annually	Three months from the date of grant of licence and one month after the end of each year thereafter
Compost Quality	Quarterly	Ten days after the period 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

Development of all Phases and future Cells of the facility including preparatory works **and introduction of lining system.**

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

Fencing and site security works including CCTV

Bunding of fuel and oil storage areas.

Installation of landfill gas management and monitoring systems.

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

Installation of alternative drinking water supplies.

Installation of groundwater management, storage, monitoring and control systems.

Installation of surface water management, storage, monitoring, and control systems.

Construction of firewater retention pond.

Modifications to Civic Waste Facility.

Recycling and recovery activities and associated infrastructure

Composting proposals and associated infrastructure.

Installation of SCADA System or equivalent system and any modifications to same.

Replacement of existing and introduction of new environmental monitoring infrastructure.

Restoration and Aftercare Works.

Nuisance control measures.

Any other works notified in writing by the Agency.

SCHEDULE E :Monitoring

Monitoring to be carried out as specified below.

E.1 Landfill Gas

Landfill gas monitoring locations shall be those as set out in Table E.1.1 and Table E.1.2 as agreed with the Agency

Table E.1.1 Landfill Cells Monitoring Locations as shown on Drawing No. 2000-017 –08-11 -Monitoring Point Locations (GG- Gas Gabion)^{Note 1}

STATION ^{Note 1/Note 2}	STATION ^{Note1/Note 2}
GG1.3, GG1.4	GG 6.1, GG 6.2
GG 2.1, GG 2.2, GG 2.3	GG7.1, GG 7.2
GG 3.2, GG 3.3	GG8.1, GG 8.2
GG 4.2, GG 4.3	GG9.1, GG9.2, GG9.3
GG 5.1, GG 5.2	GG10.1, GG10.2, GG10.3
All future lined cells monitoring location to be agreed as part of specified engineering works	
Site office	

Note 1: Unless otherwise agreed with the Agency

Note 2: At least two monitoring locations for each lined cell

Table E.1.2 Perimeter Monitoring Locations

STATION ^{Note 1}	STATION ^{Note 1}
PGDW 1	PGDW 5
PGDW 2	PGDW 11
PGDW 3	PGDW 12 ^{Note 1}
PGDW 4	PGDW 13
Perimeter monitoring network to be extended to perimeter of future phases of development of the facility as required by Condition 9.3.2 and subject to the prior agreement of the Agency	

Note 1: Unless otherwise agreed with the Agency

Note 2: PGDW 12 to be replaced with PGDW 13 as part of phase 5 development works

Table E.1.3 Landfill Gas Monitoring Frequency and Technique

Parameter	Monitoring Frequency		Analysis Method ^{Note1} /Technique ^{Note2}
	Gas Boreholes/ Vents/Wells	Site Office	
Methane (CH₄) % v/v	Monthly	Weekly	Infrared analyser/flame ionisation detector
Carbon dioxide (CO₂)%v/v	Monthly	Weekly	Infrared analyser/ flame ionisation detector
Oxygen(O₂) %v/v	Monthly	Weekly	Electrochemical cell
Atmospheric Pressure	Monthly	Weekly	Standard
Temperature	Monthly	Weekly	Standard
Minor landfill gas constituents	Annual	Annual	See Note 3

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

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

Note 3: Sampling to be carried out for minor landfill gas constituents (e.g. H₂S, mercaptans, aliphatic acids etc.) as required by the Agency following evaluation of monthly results.

E.2 Landfill Gas Flare and Landfill Gas Utilisation Plant

Landfill gas monitoring shall be those as set out in Table E.2.1

Table E.2.1 Landfill Gas Flare/Landfill Gas Utilisation Plant

STATION
Landfill Gas Flare ^{Note 1}
Landfill Gas Utilisation Plant ^{Note 2}

Note 1: Monitoring Location to be agreed with the Agency under Condition 9.2 and 9.5.

Note 2: Monitoring Location to be agreed with the Agency as part of proposal required by Condition 4.20.3.

Table E.2.2 Landfill Gas Flare ^{Note 1}/Utilisation Plant ^{Note 2} Monitoring

Parameter	Monitoring Frequency	Analysis Method ^{Note3} /Technique ^{Note4}
Inlet		
Methane (CH ₄) % v/v	Weekly	Infrared analyser/flame ionisation detector
Carbon dioxide (CO ₂)%v/v	Weekly	Infrared analyser
Oxygen (O ₂) %v/v	Weekly	Electrochemical cell
Outlet		
Volumetric Flow rate	Six monthly	Pitot Tube Method
SO ₂	Six monthly	Flue gas analyser
NOx	Six monthly	Flue gas analyser
CO	Continuous	Flue gas analyser
Particulates	Annually	Isokinetic/Gravimetric
TA Luft Class I, II, III organics	Annually	Adsorption/Desorption / GC /GCMS ^{Note 5}
Hydrogen chloride	Annually	Impinger / Ion Chromatography
Hydrogen fluoride	Annually	Impinger / Ion Chromatography

Note 1: Monitoring location to be installed within three months of the date of grant of this licence.

Note 2: If assessed to be feasible in proposal required under Condition 4.20.3

Note 3: All monitoring equipment used should be intrinsically safe.

Note 4: Or other methods agreed in advance with the Agency.

Note 5: Test methods should be capable of detecting acetonitrile, dichloromethane, tetrachlorethylene and vinyl chloride as a minimum.

E.3 Dust

Dust monitoring locations shall be those as set out in Table F.3.1 and as shown on Drawing No. 2000-017 –08-11 - *Monitoring Point Locations*.

Table E.3.1 Dust Monitoring Locations

STATION
D1, D2, D3, D4
Additional monitoring locations as required by Condition 9.4 and agreed with the Agency

Table E.3.2 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.4 Noise

Noise monitoring locations shall be those as set out in Table E.4.1 shown on Drawing No. 2000-017 –08-11 - *Monitoring Point Locations* and as required by the conditions of this licence.

Table E.4.1 Noise Monitoring Locations

STATION
N1,N2,N3, S1
Additional monitoring locations as required by Condition 9.3 and agreed with the Agency

Table E.4.2 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.5 Surface Water, Groundwater and Leachate

Surface water monitoring locations shall be those as set out in Table E.5.1 and the onsite locations shown on Drawing No. 2000-017 –08-11 - *Monitoring Point Locations*. The monitoring parameters and frequencies shall be as outlined in Table E.5.5.

Table E.5.1 Surface Water Monitoring Locations

STATION
SW1-SW6 inclusive
Additional surface water monitoring location required by Condition 9.4 and agreed with the Agency
Additional surface water monitoring location required by Condition 9.8 b) and agreed with the Agency
Biological Sampling locations on the Lee and Smearlagh catchments shown on Map1 Sampling Locations adjacent to North Kerry landfill of Appendix 18 of Volume 3 of the EIS or as otherwise instructed by the Agency.
Surface water/ Groundwater Retention Ponds ^{Note 2}

Note 1: Condition 9.9 requires the Biological monitoring programme to be extended to include a fisheries assessment of the Lee and Smearlagh catchments to be submitted to the agency for approval as required by

Note 2: Proposals for continuous monitoring of the proposed Surface Water/Groundwater Retention Ponds including methods to be submitted to the Agency for approval as required by Condition 9.7.

Groundwater monitoring locations shall be those as set out in Table E.5.2. The monitoring parameters and frequencies shall be as outlined in Table E.5.5.

Table E.5.2 Groundwater Monitoring Locations

STATION ^{Note 1}
BH1, BH2, BH3, BH4, BH5 and BH5.1
Groundwater pumped from the site development area.
Additional groundwater monitoring locations required by Condition 9.4 and agreed with the Agency
Additional groundwater monitoring locations required by Condition 9.8 a) and b) and agreed with the Agency.

Note 1: Unless otherwise agreed with the Agency.

Leachate monitoring locations shall be those as set out in Table E.5.3. The monitoring parameters and frequencies shall be as outlined in Table E.5.4 and Table E.5.5.

Table E.5.3 Leachate Monitoring Locations

STATIONS ^{Note 1}
Leachate Collection manholes for active cells.
Leachate Detection manholes – LDM-cell 1, LDM Cell 2, LDM-Lagoon.
Leachate Collection manholes within which leachate recirculation is undertaken.
Leachate Storage Lagoon 1
Leachate Storage Lagoon 2 ^{Note 3}

Note 1 : Unless otherwise agreed with the Agency

Note 2 : From commencement of filling of cells subject to the agreement of the Agency.

Note 3: From date of commissioning of Leachate Storage Lagoon 2.

Table E.5.4 Leachate Monitoring Locations and Frequency

Monitoring Medium	Parameters	Frequency		Monitoring Points
		Operational	Aftercare	
Leachate	Leachate levels and freeboard in leachate storage lagoon(s)	Continuous	Weekly	In each cell of the landfill and in the leachate storage lagoon(s)
	Leachate composition analysis as per Table E.5.5	As per Table E.5.5	At half the frequency specified in Table E.5.5 with a minimum of once per annum	The active cells of the landfill, the cells within which leachate recirculation is undertaken, the leachate detection manholes, and the leachate storage lagoon(s).

Table E.5.5 Water and Leachate - Parameters /Frequency

Parameter ^{Note 1}	SURFACE WATER	GROUNDWATER	LEACHATE
	Monitoring Frequency	Monitoring Frequency	Monitoring Frequency
Visual Inspection/Odour ^{Note 2}	Weekly	Quarterly	Quarterly
Groundwater Level	Not Applicable	Monthly	Not Applicable
Leachate Level	Not Applicable	Not Applicable	Weekly
Ammoniacal Nitrogen	Quarterly	Monthly	Quarterly
BOD	Quarterly	Not Applicable	Quarterly
COD	Quarterly	Not Applicable	Quarterly
Chloride	Quarterly	Quarterly	Quarterly
Dissolved Oxygen	Quarterly	Quarterly	Not Applicable
Electrical Conductivity	Quarterly	Monthly	Quarterly
pH	Quarterly	Monthly	Quarterly
Suspended Solids	Quarterly	Not Applicable	Not Applicable
Temperature	Quarterly	Monthly	Quarterly
Boron	Not Applicable	Annually	Annually
Cadmium	Annually	Annually	Annually
Calcium	Annually	Annually	Annually
Chromium (Total)	Annually	Annually	Annually
Copper	Annually	Annually	Annually
Cyanide (Total)	Not Applicable	Annually	Annually
Fluoride	Not Applicable	Annually	Annually
Iron	Annually	Annually	Quarterly
Lead	Annually	Annually	Annually
List I/II organic substances ^{Note 3}	Note 7	Annually	Note 8
Magnesium	Annually	Annually	Annually
Manganese	Annually	Annually	Annually
Mercury	Annually	Annually	Annually
Potassium	Annually	Quarterly	Quarterly
Sulphate	Annually	Annually	Annually
Sodium	Annually	Quarterly	Quarterly
Total Alkalinity	Annually	Annually	Annually ^{Note 5}
Total Phosphorus / orthophosphate	Annually	Annually	Annually
Total Oxidised Nitrogen	Annually	Quarterly	Quarterly
Total Organic Carbon	Not Applicable	Quarterly	Not Applicable
Residue on evaporation	Not Applicable	Annually	Not Applicable
Zinc	Annually	Annually	Annually
Phenols	Not Applicable	Quarterly	Not Applicable
Faecal Coliforms ^{Note 4}	Not Applicable	Annually	Annually
Total Coliforms ^{Note 4}	Not Applicable	Annually	Annually
Biological Assessment	Annually ^{Note 6}	Not Applicable	Not Applicable

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

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

- Note 3: Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list I/II Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include: volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (US Environmental Protection Agency method 525 or equivalent, and pesticides (US Environmental Protection Agency method 608 or equivalent).
- Note 4: If there is evidence of bacterial contamination, the analysis at up gradient and downgradient monitoring points should include enumeration of total bacteria at 22°C and 37°C and faecal streptococci.
- Note 5: Only to be analysed in instances of on-site treatment of leachate subject to the agreement of the Agency.
- Note 6: Appropriate biological methods (such as EPA Q-Rating System) to be used for the assessment of rivers and streams). The biological assessment is required by Condition 9.9 to be extended to include a fisheries assessment (with particular reference to salmonids) of the Lee and Smearlagh catchments.
- Note 7: Once off for List I/II organic substances at **** and thereafter as required by the Agency.
- Note 8: Once off for List I/II organic substances and thereafter as required by the Agency.

E.6 Meteorological Monitoring

Table E.6.1 Meteorological Monitoring:

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

E.7 Monitoring of Composting Process

Table E.7.1 Monitoring of Composting Process.

Parameter	Monitoring ^{Note1} Frequency	Analysis Method/Technique
Moisture Content	Daily	Standard
Temperature (min/max.)	Daily	Standard
Oxygen	Daily	Standard

Note 1: Unless otherwise agreed with the Agency

SCHEDULE F :Emission Limits

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

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

F.2 Landfill Gas Concentration Limits: (Measured in any building on or adjacent to the facility).

Methane	Carbon Dioxide
20 % LEL (1% v/v)	1.5 % v/v

F.3 Emission Limit Values for Landfill Gas Flares & Utilisation Plant

Emission Point reference no's to be agreed in advance with the Agency

Location: Landfill Gas Combustion Plant and flarestacks

Volume to be emitted from each stack: 3000m³/hr

Minimum discharge height for each stack: 6m

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

Note 1: In addition to the above individual limits, the sum of the concentrations of Class I, II and III shall not exceed the Class III limits.

Note 2: Dry gas referenced to 5% oxygen by volume.

Note 3 Emission limit Values in brackets represent limit values for flare units.

F.4 Dust Deposition Limits: (Measured at the monitoring points indicated in Table E.3.1).

Level (mg/m ² /day) ^{Note 1}
350

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

SCHEDULE G :Compost Quality

Unless otherwise agreed with the Agency, the licensee shall monitor the compost product, at least monthly, from the organic waste composting unit and green waste composting unit to ensure it meets the following criteria.

The following criteria are deemed a quality standard for the use of compost as a soil improver and should not be deemed as criteria for fertiliser. In addition N, P, K, NH₄-N, NO₃-N, pH and dry matter content should also be measured.

Compost shall be deemed unsatisfactory if more than 10% of samples fail the criteria below. No sample shall exceed 1.2 times the quality limit values set.

1. Maturity

Compost shall be deemed to be mature if:

it meets two of the following requirements:

- C/N ratio ≤ 25
- oxygen uptake rate ≤ 150 mg O₂/kg volatile solids per hour; and
- germination of cress (*Lepidium sativum*) seeds and of radish (*Raphanus sativus*) seeds in compost must be greater than 90 percent of the germination rate of the control sample, and the growth rate of plants grown in a mixture of compost and soil must not differ more than 50 percent in comparison with the control sample.
- Elimination of the following test organisms (used to evaluate composting system efficiency in removing plant pathogens and weed seeds during the composting process): *Plasmodiophora brassicae*, tobacco-mosaic-virus (TMV) and tomato seeds. Guidance on test may be obtained from the German document LAGA M10 'Quality Criteria and Application Recommendations for Compost'.

OR

- Compost must be cured for at least 21 days; and
- Compost will not reheat upon standing to greater than 20°C above ambient temperature.

OR

- Compost must be cured for at least 21 days; and
- Reduction of organic matter must be > 60 percent by weight.

OR

- If no other determination of maturity is made, the compost must be cured for a six month period. The state of the curing pile must be conducive to aerobic biological activity. The curing stage begins when the pathogenic reduction process is complete and the compost no longer reheats to thermophilic temperatures.

2. Foreign Matter

Compost must not contain any sharp foreign matter measuring over a 2 mm dimension that may cause damage or injury to humans, animals and plants during or resulting from its intended use.

Foreign matter content as a percentage of oven-dried mass	≤ 1.5
Foreign matter, maximum dimensions, in mm	25

3. Trace Elements

Maximum Trace Element Concentration Limits for Compost

Trace Elements	(mg/kg, dry mass)
Arsenic (As) ^{Note 1}	15
Cadmium (Cd)	1.5
Chromium (Cr)	100
Copper (Cu)	100
Mercury (Hg)	1
Molybdenum (Mo) ^{Note 1}	5
Nickel (Ni)	50
Lead (Pb)	150
Selenium (Se) ^{Note 1}	2
Zinc (Zn)	350

Note 1: Monitoring of these parameters required if waste from an industrial source.

Note 2: The above alone should not be taken as an indication of suitability for addition to soil as the cumulative metal additions to soil should be first calculated.

4. Pathogens

Pathogenic organism content must not exceed the following limits:

- the quantity of faecal coliforms must be < 1,000 Most Probable Number (MPN)/g of total solids calculated on a dry weight basis; and
- there can be no salmonellae present (< 3 MPN/4g total solids).

5. Monitoring

The licensee shall monitor the compost product at least monthly. The licensee shall submit to the Agency for its agreement, prior to commencement of compost operations, details of methods of analyses and sample numbers.

SCHEDULE H : Waste Acceptance

Table H.1 Waste Categories and Quantities

WASTE TYPE	MAXIMUM TONNES PER ANNUM
Household	34,500
Commercial	28,500
Construction and demolition	2,500
Industrial non hazardous solids	9,500
Biodegradable waste for composting	2,000
TOTAL	77,000

Signed on behalf of the said Agency
on the 31st day of August 2000

P. Nolan

Authorised Person