



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

WASTE LICENCE

PROPOSED DECISION

Waste Licence Application Register Number:	182-1
Applicant:	Natures Way Composting Limited
Location of Facility:	Corbollis Ready Penny Dundalk Co. Louth

INTRODUCTION

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

This licence is for the operation of an anaerobic digestion and composting facility at Natures Way Composting Limited, Corbollis, Ready Penny, Dundalk, County Louth.

Natures Way Composting Limited will be licensed to accept organic wastes (primarily organic household waste, green waste, manures/slurries, spent mushroom compost and various organic sludges) at this facility.

The quantity of waste to be accepted at the facility is limited to 50,000 tonnes in the first phase of operation and increasing to a maximum of 100,500 tonnes in the second phase. The licensee is not permitted to commence second phase activities sooner than two years from the commencement of waste activities unless there is adequate infrastructure in place at the facility.

Wastes must only be received in fully covered vehicles and can only be unloaded inside the appropriate reception building. All waste will be either treated within the various anaerobic digestion vessels and/or composted in enclosed containers. There will be biofiltration of air from the various odorous air streams to reduce odours arising. Biogas from the anaerobic digestion process will be utilised by combustion to produce heat for the sanitisation of incoming material.

The licensee must manage and operate the facility to ensure that the activities do not cause environmental pollution. The licensee is required to carry out regular environmental monitoring and submit all monitoring results, and a wide range of reports on the operation and management of the facility to the Agency.

The licence sets out in detail the conditions under which Natures Way Composting Limited will operate and manage this facility.

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DECISION AND REASONS FOR THE DECISION

Reasons for the Decision

The Environmental Protection Agency (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 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 Agency proposes, under Section 40(1) of the said Act to grant this Waste Licence to Natures Way Composting Limited, to carry on the waste activities listed below at Corbollis, Ready Penny, Dundalk, County Louth subject to 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 11.	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule: This activity is limited to blending or mixing of waste materials prior to disposal off site.
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 was produced: This activity is limited to storage of waste materials prior to disposal off site.

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 anaerobic digestion and composting of organic waste and the utilisation of biogas.
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 storage of organic waste prior to biological treatment on-site.

INTERPRETATION

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

Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Adequate Lighting	20 lux measured at ground level.
Agreement	Agreement in writing.
Annually	At approximately twelve monthly intervals.
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.
Annually	All or part of a period of twelve consecutive months.
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.
Appropriate Facility	A waste management facility, duly authorised under relevant law and technically suitable.
BAT	Best Available Techniques as defined in Article 2(11) of Council Directive 96/61/EC concerning integrated pollution prevention and control.
Biodegradable Waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
Bund	A structure to provide containment for any loss of liquid from a storage tank and associated pipework.
Category 1, 2 & 3 Animal By-product Waste	As defined in ' <i>European Parliament and Council Regulation No 1774/2002 laying down health rules concerning animal by-products not intended for human consumption</i> ' or other National Regulations.
Condition	A condition of this licence.
Containment Boom	A boom which can contain & prevent spillages from entering watercourses.
Compost	The stable, sanitised and humus-like material rich in organic matter and free from offensive odours resulting from the composting of separately collected biowaste, which complies with the environmental quality Classes 1 and 2 of <i>Schedule G: Digestate/Compost Quality</i> , of this licence
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.
Daily	Consecutive 24 hour periods.
Day	A period from 0000 hours to 2400 hours.
Daytime	0800 hrs to 2200 hrs.

Digestate	The material resulting from anaerobic digestion of biowaste that complies with the environmental quality classes outlined in <i>Schedule G: Digestate/Compost Quality</i> , of this licence.
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.
Emergency	Those occurrences defined in Condition 9.4.
Emission Limits	Those limits, including concentration limits and deposition levels established in <i>Schedule C: Emission Limits</i> , of this licence.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 94/3/EC & any subsequent amendment published in the Official Journal of the European Community.
Green Waste	Waste wood and plant matter <i>e.g</i> grass cuttings & other vegetation.
Hours of Operation	The hours during which the facility is authorised to be operational.
Hours of Waste Acceptance	The hours during which the facility is authorised to accept waste.
Incident	The following shall constitute an incident for the purposes of this licence: <ul style="list-style-type: none"> a) an emergency; b) any emission which does not comply with the requirements of this licence; c) any exceedance of the daily duty capacity of the waste handling equipment; d) any trigger level specified in this licence which is attained or exceeded; e) any indication that environmental pollution has, or may have, taken place; and f) any rejected load of waste.
Impulsive Noise	As defined in British Standard BS 4142, 1990. "Method for rating industrial noise affecting mixed residential and industrial areas".
Licence	A waste licence issued in accordance with the Act.
Licensee	Natures Way Composting Limited, Corbollis, Ready Penny, Dundalk, County Louth.
Liquid Waste	Waste in liquid form, containing <2% dry matter or waste tankered to the facility.
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	A minimum of twelve times per year, at approximately monthly intervals.

Night-time

2200 hrs to 0800 hrs.

Noise Sensitive Location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Oil Separator	Device installed according to the draft European Standard prEN 858 (Installations for the separation of light liquids, eg. oil and petrol).
Quarterly	At approximately three monthly intervals.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
Sludge	The accumulation of solids from chemical coagulation, flocculation and/or sedimentation after water/wastewater treatment with greater than 2% dry matter.
Specified Emissions	Those emissions listed in <i>Schedule C: Emission Limits</i> , of this licence.
Specified Engineering Works	The works listed in <i>Schedule B: Specified Engineering Works</i> , of this licence.
Stabilised Biowaste	Waste resulting from the mechanical/ biological treatment of unsorted waste or residual municipal waste as well as any other treated biowaste which does not comply with quality Classes 1 or 2 of <i>Schedule G: Digestate/Compost Quality</i> , of this licence.
Telemetry	Automatic transmission & measurement of data from remote sources by wire/radio/other means.
Treated Sludge	Sludge which has undergone biological, chemical or heat treatment, long-term storage or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use.
Treatment	Treatment means the physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.
Trigger Level	A parameter value specified in the licence, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Wastewater	Contaminated water including process water and water that has been used for washing and/or flushing (including foul water).
EPA Working Day	9.00 a.m. to 5.30 p.m. Monday to Friday.

PART II CONDITIONS

CONDITION 1 SCOPE OF THE LICENCE

- 1.1. Waste activities at the facility shall be restricted to those listed and described in Part I: Activities Licensed and authorised by this licence.
- 1.2. For the purposes of this licence, the facility is the area of land outlined in red in Figure 2, Revision 01 (January 2003) of the application. Any reference in this licence to “facility” shall mean the area thus outlined in red.
- 1.3. This licence is for the purposes of waste licensing under the Waste Management Act 1996 only and nothing in this licence shall be construed as negating the licensee’s statutory obligations or requirements under any other enactments or regulations.
- 1.4. Waste Types and quantities
 - 1.4.1. Only those waste categories and quantities listed in *Schedule A: Waste Acceptance*, of this licence, shall be accepted at the facility. Hazardous waste shall not be accepted at the facility.
 - 1.4.2. The quantity of wastes to be accepted at the facility shall not exceed 50,000 tonnes per annum in Phase I.
 - 1.4.3. Subsequent to the commissioning of Phase II of the project, (as covered under *Schedule B: Specified Engineering Works*, of this licence) the quantity of wastes to be accepted at the facility shall not exceed 100,500 tonnes per annum. The licensee shall not commence Phase II activities sooner than two years from the date of commencement of waste activities, unless otherwise agreed with the Agency.
- 1.5. Waste Acceptance Hours and Hours of Operation
 - 1.5.1. Waste shall only be accepted at the facility between the hours of 8 a.m. - 5 p.m. Monday to Friday inclusive and 8 a.m. - 2 p.m. on Saturdays.
 - 1.5.2. Waste shall only be handled at the facility during the hours of 8 a.m. - 6 p.m. Monday to Friday inclusive and 8 a.m. - 3 p.m. on Saturdays.
 - 1.5.3. Waste shall not be accepted at the facility on Sundays or on Bank Holidays.
- 1.6. Where the Agency considers that a non-compliance with any condition of this licence has occurred, it may serve a notice on the licensee specifying:-
 - 1.6.1. 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.
 - 1.6.2. 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.
 - 1.6.3. That the licensee shall carry out any other requirement specified in the notice.

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

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

REASON: To clarify the scope of this licence.

CONDITION 2 MANAGEMENT OF THE FACILITY

2.1 Facility Management

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

2.2 Management Structure

- 2.2.1 Prior to the commencement of waste activities, the licensee shall submit written details of the management structure of the facility to the Agency. Any proposed replacement in the management structure shall be notified in advance in writing to the Agency. Written details of the management structure shall include the following information.
- a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;
 - b) details of the responsibilities for each individual named under a) above;
 - c) details of the relevant education, training and experience held by each of the persons nominated under a) above;
 - d) contingency arrangement for the absences of the named persons from the facility; and
 - e) appropriate personnel for dealing with emergency situations both within and outside normal working hours.

2.3 Environmental Management System (EMS)

- 2.3.1 The licensee shall establish and maintain an EMS. Within three months of the commencement of waste activities at this facility, the licensee shall submit to the Agency for its agreement a proposal for a documented Environmental Management System (EMS) for the facility. Following the agreement of the Agency, the licensee

shall establish and maintain such a system. The EMS shall be updated on an annual basis with amendments being submitted to the Agency for its agreement.

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

2.3.2.1 Schedule of Environmental Objectives and Targets

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

2.3.2.2 Environmental Management Plan (EMP)

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

- (i) methods by which the objectives and targets will be achieved in the coming year and the designation of responsibility for targets; and
- (ii) any other items required by written guidance issued by the Agency.

2.3.2.3 Corrective Action Procedures

The Corrective Action Procedures shall detail the corrective actions to be taken should any of the procedures detailed in the EMS not be followed, including relevant personnel and timeframes for completion.

2.3.2.4 Awareness and Training Programme

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

2.4 Communications Programme

2.4.1 Prior to the commencement of waste activities at this facility, the licensee shall establish and maintain a Communications Programme to inform the local community and ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility.

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

CONDITION 3 FACILITY INFRASTRUCTURE

3.1 The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as required by the conditions of this licence.

3.2 Specified Engineering Works

3.2.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule B: Specified Engineering Works*, of this licence, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. Such proposals shall be in accordance with the Technical Manuals published by

the Agency. No such works shall be carried out without the prior agreement of the Agency.

3.2.2 All specified engineering works shall be supervised by a competent person(s) agreed with the Agency and that person, or persons, shall be present at all times during which relevant works are being undertaken to ensure the requirements of the license are complied with.

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

- a) a description of the works;
- b) as-built drawings of the works;
- c) records of any problems and the remedial works carried out to resolve those problems; and
- d) any other information requested in writing by the Agency.

3.3 Facility Notice Board

3.3.1 The licensee shall provide and maintain a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.

3.3.2 The board shall clearly show:-

- a) the name and telephone number of the facility;
- b) the normal hours of opening;
- c) the name of the licence holder;
- d) an emergency out of hours contact telephone number;
- e) the licence reference number; and
- f) where environmental information relating to the facility can be obtained.

3.4 Facility Security

3.4.1 Security and stockproof fencing and gates shall be installed and maintained as described in Section 3.5.1 of the EIS. The base of the fencing shall be set in the ground.

3.4.2 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.

3.5 Facility Roads and site surfaces

3.5.1 Facility roads shall be provided and maintained to ensure the safe movement of vehicles at the facility.

3.5.2 The facility entrance area and the access road to the facility shall be surfaced and maintained in accordance with Section 3.5 of the EIS.

3.5.3 The licensee shall provide, and maintain an impermeable concrete surface in all areas of the facility where waste is tipped, sorted or otherwise processed. Concreted areas shall be constructed to British Standard 8110.

3.6 Facility Office

- 3.6.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 3.6.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.

3.7 Waste Inspection and Quarantine Areas

- 3.7.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility.
- 3.7.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other.
- 3.7.3 Drainage from these areas shall be directed to the contaminated water tank as shown in Appendix 4 (Drawing titled 'Drainage Layout') unless otherwise agreed with the Agency.

3.8 Surface water control and site construction

- 3.8.1 Prior to the commencement of construction on-site, the licensee shall provide details to the Agency of controls to be provided during construction which shall include the following:-
 - (i) The management of all surface water run-off at the facility during the construction phase to ensure the protection of surface waters. This shall include (where necessary) the provision of flood control measures at the facility;
 - (ii) Provision of silt fences/straw bale filters or equivalent, during construction works to prevent erosion of soil and sediment into local streams; and
 - (iii) The incorporation of a penstock in the surface water discharge points to prevent surface water discharges in the event that monitoring should indicate contamination of the surface water.
- 3.8.2 The surface water management infrastructure shall be constructed and operational prior to the commencement of other construction works.
- 3.8.3 Upon construction of the facility, the surface water and wastewater sewer systems shall be established and maintained as set out in Drawing name 'Drainage Layout (dated 5/11/2002)' subject to any alterations agreed with the Agency. In addition, the licensee shall install a drainage stopcock or equivalent to prevent waste water entering the uncontaminated water storage tank.
- 3.8.4 Prior to the commencement of construction on-site, the licensee shall submit an assessment to the Agency which shall establish the effects, if any, which flood conditions may have on the proposed facility during and after construction. This assessment should take into account water levels for 50 year, 100 year and 150 year return periods and the potential for cross-contamination between flood waters and any wastewater or surface water arising at the facility. This assessment should also include mitigation measures, where necessary, to alleviate any potential problems arising from flooding at/in the vicinity of the facility. Once agreed by the Agency, any recommendations arising shall be implemented prior to the acceptance of waste.

3.9 Surface water management

- 3.9.1 Prior to commencement of waste activities the licensee shall provide a proposal to the Agency on the proposed source of water to be used in waste activities carried out at the facility. The licensee shall consult with the Fisheries Board and the Local Authority in the preparation of this proposal.
- 3.9.2 Prior to the commencement of waste activities, the licensee shall submit to the Agency for its agreement a proposal for the provision of an adequately sized on-site uncontaminated surface water storage tank. This tank shall be sized so as to maximise re-use of uncontaminated surface water, and minimise any routine discharge of uncontaminated surface water from the facility.
- 3.10 Wastewater Management
- 3.10.1 All wastewater on site shall drain to the 'contaminated water tank', unless otherwise agreed with the Agency.
- 3.10.2 Where wastewater is to be reused in the process it shall be directed to the anaerobic digestion system and shall be mixed with incoming material prior to the sterilisation step, or otherwise adequately treated.
- 3.10.3 Installation of a wastewater treatment system (e.g percolation area) or tankering of wastewater to an off-site Wastewater Treatment Plant shall only occur with the prior agreement of the Agency.
- 3.11 Weighbridge and Wheel Cleaning
- 3.11.1 The licensee shall provide and maintain a weighbridge and wheelwash at the facility prior to the commencement of waste activities.
- 3.12 Waste handling, ventilation and processing plant
- 3.12.1 Items of plant deemed critical to the efficient and adequate processing of waste at the facility (including *inter alia* waste mixing/screening plant and air handling fans) shall be provided on the following basis:-
- a) 100% duty capacity;
 - b) 50% standby capacity available on a routine basis; and
 - c) Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.
- 3.12.2 Prior to the commencement of waste activities, the licensee shall provide a report for the agreement of the Agency detailing the duty and standby capacity in tonnes per day, of all waste handling and processing equipment to be used at the facility. These capacities shall be based on the licensed waste intake, as per *Schedule A: Waste Acceptance*, of this licence.
- 3.12.3 The quantity of waste to be accepted at the facility on a daily basis shall not exceed the duty capacity of the equipment at the facility. Any exceedance of this intake shall be treated as an incident.
- 3.13 Tank and Drum Storage Areas
- 3.13.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.
- 3.13.2 All 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.

3.13.3 All drainage from bunded areas shall be diverted for collection and safe disposal.

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

3.13.5 The integrity and water tightness of all the bunds and their resistance to penetration by water or other materials stored therein shall be confirmed by the licensee and shall be reported to the Agency following its installation and prior to its use as a storage area.

3.13.6 This confirmation shall be repeated at least once every three years thereafter and reported to the Agency on each occasion.

3.14 Silt Traps and Oil Separators/Interceptors

3.14.1 The licensee shall install and maintain silt traps and oil interceptors at the facility to ensure that all surface water discharges from the wheel wash facility pass through a silt trap and oil interceptor prior to discharge. The interceptors shall be a Class I by-pass interceptor and the silt traps and interceptors shall be in accordance with European Standard EN 858 (installations for the separation of light liquids).

3.15 Water Storage/Firewater storage

3.15.1 Prior to the commencement of waste activities on site the licensee shall provide holding tanks/ponds/bunded yard at the facility for the purposes of storing (i) water for use in the event of a fire at the facility and (ii) firewater which has been used for fire-fighting at the facility. The capacity of such structures shall meet the requirements of Condition 9.2.

3.16 Drainage system, pipeline testing

3.16.1 The drainage system, bunds, silt traps and oil separators shall be inspected weekly, desludged as necessary and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal. A written record shall be kept of the inspections, desludging, cleaning, disposal of associated waste products, maintenance and performance of the interceptors, bunds and drains.

3.17 Odour Control

3.17.1 Prior to the date of commencement of the waste activities at the facility, the licensee shall install and provide the odour abatement system as outlined in Section 4.1.3 of the EIS. In addition, the following additional measures shall be included:-

- (i) A system for the maintenance of integrity and negative pressure shall be installed and maintained throughout the waste acceptance/mixing area to ensure no significant escape of odours. A report which confirms the negative and integrity pressure within the waste transfer building shall be submitted to the Agency for its agreement prior to the date of commencement of the waste activities at the facility;
- (ii) Provision of 100% duty capacity and 50% stand by capacity, back ups and spares for the air handling, ventilation and abatement plant; and
- (iii) Prior to the installation of the CHP plant, the licensee shall submit proposals to the Agency for the ducting of composting process gases into the CHP plant system for the purposes of odour reduction.

3.18 Monitoring Infrastructure

3.18.1 Replacement of Infrastructure

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

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

CONDITION 4 RESTORATION AND AFTERCARE

- 4.1. A proposal for a Decommissioning and Aftercare Plan for the facility shall be submitted to the Agency within twelve months of the commencement of waste activities at this facility. The licensee shall update these schemes when required by the Agency.

REASON: To provide for the restoration of the facility.

CONDITION 5 FACILITY OPERATIONS

- 5.1. Operational controls
- 5.1.1 All waste accepted into the waste acceptance/mixing area (apart from bulking agents/woody green waste) shall be transferred to a sterilisation vessel, an anaerobic digestion or composting container as soon as possible and not later than 48 hours from receipt unless otherwise agreed in advance with the Agency.
 - 5.1.2 All entry and exit doors to the waste acceptance/mixing area shall be on automatic open/close switches in order to minimise the time spent open.
 - 5.1.3 The floor of the waste acceptance/mixing area shall be cleaned of waste on a daily basis.
 - 5.1.4 No waste shall be stored overnight at the facility in other than designated storage areas in the waste acceptance/mixing area.
 - 5.1.5 All material shredding/screening shall be carried out in an enclosed building.
 - 5.1.6 All other waste processing shall occur inside an appropriate building, unless otherwise agreed with the Agency.
 - 5.1.7 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
 - 5.1.8 Fuels shall only be stored at appropriately bunded locations on the facility.
 - 5.1.9 All tanks and drums shall be labelled to clearly indicate their contents.
 - 5.1.10 No smoking shall be allowed in waste handling/processing areas.
- 5.2. Prior to the commencement of waste activities the licensee shall submit for agreement a procedure for biofilter commissioning and operation on a phased basis in order to ensure adequate odour control at the facility.
- 5.3. Prior to the commencement of waste activities, the licensee shall submit to the Agency for its agreement, written procedures for the acceptance of waste. These procedures shall address the following:
- 5.3.1 One in twenty loads shall be tipped into the waste inspection area and examined and recorded (where appropriate).
 - 5.3.2 Each load of waste arriving at the facility shall be visually inspected prior to unloading in accordance with “Level 3: On-site Verification” outlined in the Agency’s Draft

Manual on Waste Acceptance. Any wastes deemed to be in contravention of this licence and/or unsuitable for acceptance at this facility shall be removed for disposal/recovery at an appropriate alternative facility.

5.3.3 Methods/procedures (e.g. use of dedicated and/or marked containers) to be used to segregate biowaste containing Sewage Sludge from other wastes. These procedures shall be updated as follows:

- (i) prior to the acceptance of new waste types with the agreement of the Agency;
- (ii) as required to reflect changes in National or EU Legislation: or
- (iii) as notified by the Agency.

5.3.4 All sewage and industrial sludges accepted shall be analysed (on a client by client basis) for metals (as detailed in *Schedule G.2: Maximum Trace Element Concentration Limits*, of this licence) prior to acceptance at the facility. Subsequent to this initial characterisation, sewage sludges shall be analysed on a quarterly basis and other effluent sludges shall be analysed on an annual basis (all on a client by client basis). Sludges from any new client shall not be accepted without the agreement of the Agency.

5.3.5 Unless otherwise agreed sewage sludge may not be composted with other waste types.

5.3.6 The licensee shall accept sewage sludge only if it complies with Council Directive 86/278/EEC.

5.4. Written procedures for the acceptance and handling of animal by-product waste shall include the following requirements (unless otherwise agreed with the Agency):-

- (i) Vehicles delivering animal by-product waste to the facility shall be leak-proof and adequately covered;
- (ii) Containers and vehicles used for transporting untreated animal by-product waste shall be cleaned and disinfected prior to leaving the facility. They shall be cleaned and disinfected in a designated & contained area which is designed to prevent contamination of treated products;
- (iii) All digestion and composting residues shall be handled in such a way as to prevent recontamination from untreated products;
- (iv) Digestion and composting containers shall be designated and labelled so as to ensure that animal by-product waste is treated in the same designated vessels, in so far as is practicable;
- (v) These procedures shall be updated prior to the acceptance of new waste types (when necessary), as required to reflect changes in National or EU Legislation or as agreed with the Agency; and
- (vi) The licensee shall meet the requirements of Regulation (EC) No 1774/2002 of the European Parliament and the Council of 3 October 2002, laying down health rules concerning animal by-products not intended for human consumption and associated National Legislation.

5.5 Digestate/Compost Quality

5.5.1 In order to be considered a product, digestate/compost shall comply with the Quality Standards as outlined in *Schedule G: Digestate/Compost Quality* of this licence, unless otherwise agreed with the Agency. Digestate/compost not complying with Class 1 or

Class 2 of these Quality Standards, and Stabilised Biowaste shall be considered a waste and shall be disposed/recovered to an authorised outlet, as agreed with the Agency.

5.5.2 No waste shall be stored outside the facility building.

5.6 Off-site Disposal and Recovery

5.6.1 Waste sent off-site for recovery or disposal shall only be conveyed by a waste contractor agreed by the Agency.

5.6.2 All waste transferred from the facility shall only be transferred to an appropriate facility agreed by the Agency.

5.6.3 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.

5.7. Process Management and Validation

5.7.1 All anaerobic digestion and composting processes shall be executed in line with the treatment regimes outlined in *Schedule E: Process Management*, of this licence as follows:

(i) Category 2 animal by-product waste shall be exposed to the treatment described in *Table E.1 Waste Sterilisation* prior to anaerobic digestion/composting; and

(ii) All waste not treated as described in (i) above, shall be exposed to the treatment described in *Table E.2 Anaerobic digestion* or *Table E.3 Composting* as appropriate.

5.7.2 An indicator organism shall be used to validate the compost and digestion sanitation steps. This shall be carried out as outlined in *Schedule E: Process Management*, of this licence.

5.8. Compost/Digestate use

5.8.1 Compost of Class 1 and Class 2 Standard shall be considered a product.

5.8.2 All landspreading of compost/digestate of Class 1 Standard shall be in accordance with best agronomic practice.

5.8.3 All landspreading of compost/digestate of Class 2 Standard shall be in accordance with best agronomic practice. Notwithstanding this, it shall be used in a quantity not exceeding 30 tonnes dry matter per hectare (on a three year average) unless otherwise agreed with the Agency.

5.8.4 All landspreading of compost/digestate containing sewage sludge as a constituent shall be carried out in accordance with the Waste Management (Use of sewage sludge in agriculture) Regulations 1998-2001.

5.8.5 All landspreading of compost/digestate containing Category 2 or 3 animal by-products as a constituent shall be carried out in accordance with the 'European Parliament and Council Regulation No 1774/2002 laying down health rules concerning animal by-products not intended for human consumption' or other National Regulations.

5.8.6 The recovery or disposal of all compost/digestate shall be recorded as required under Condition 10.2. Subject to the prior agreement of the Agency, Stabilised Biowaste (digestate) may be used in artificial soils or in land applications that are not used for food and fodder crop production.

5.9 Maintenance

5.9.1 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.

5.9.2 The licensee shall maintain and clearly label and name all sampling and monitoring locations.

5.9.3 The wheel-wash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel-wash and disposed of appropriately.

5.10 Landscaping

5.10.1 The following Landscaping measures shall be carried out at the facility, unless otherwise agreed in writing with the Agency:-

- (i) Landscaping shall be carried out as outlined in Drawing entitled 'Landscape Drawing' (as received by the Agency as part of Article 13 requirements on 5 June 2003), and using the species mix recommended therein;
- (ii) The facility berm shall be a minimum height of 1.5m;
- (iii) At least 75% of the tree stock planted on top of the berm shall be 4m in height at the time of planting, and shall be planted at 3m centres;
- (iv) Preparation and planting shall be carried out prior to the commencement of waste activities on site; and
- (v) Ongoing management of the landscaping vegetation shall be carried out on a regular basis to ensure these measures remain adequate for the purposes of screening.

<i>REASON:</i>	<i>To provide for appropriate operation of the facility to ensure protection of the environment.</i>
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CONDITION 6 EMISSIONS

6.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule C: Emission Limits*, of this licence. There shall be no other emissions of environmental significance.

6.2. The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.

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

6.3.1. The concentration limits specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of; Temperature 273 K, pressure 101.3 kPa, dry gas; 5% oxygen.

6.3.2. Non-Continuous Monitoring:-

- (i) For any parameter where, due to sampling/analytical limitations, a 30 minute sample 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; and
- (iii) For flow, no hourly or daily mean value shall exceed the emission limit value.

6.4. Emissions to Surface Water

6.4.1. The trigger levels for surface water discharges from the facility measured at monitoring point SW4 are:-

- a) BOD 25mg/l; and
- b) Suspended Solids 35mg/l

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

6.5. There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the noise sensitive locations.

6.6. Telemetry System

6.6.1. The licensee shall install and maintain a Telemetry system for the control of the sterilisation unit, anaerobic digestion, composting and CHP Plant systems at the facility.

6.6.2. Both the uncontaminated and contaminated water storage tanks shall include a high level alarm connected to the control room telemetry system. This alarm shall be set such that a minimum of 10% spare capacity is routinely maintained in the contaminated water storage tank. The licensee shall hold a spare monitor and alarm in stock to be used in the event of a breakdown.

6.6.3. All sterilisation unit, anaerobic digestion, and composting telemetry monitoring systems shall include alarms to indicate if insufficient heating has occurred (as defined in *Schedule E: Process Management*, of this licence).

<p><i>REASON: To control emissions from the facility and provide for the protection of the environment.</i></p>

CONDITION 7 NUISANCE CONTROL

7.1 The licensee shall ensure that vermin, birds, flies, mud, dust, litter, noise and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.

- 7.2 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.
- 7.3 Litter Control
- 7.3.1 All loose litter or other waste, placed on or in the vicinity of the facility, other than in accordance with the requirements of this licences, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00 a.m. of the next working day after such waste is discovered.
- 7.3.2 The licensee shall ensure that all vehicles delivering and removing waste from the facility are fully covered, clean and adequately secured to prevent spillage and shall not give rise to offensive odours, cause soiling of approach roads or other nuisance.
- 7.4 Dust Control
- 7.4.1 In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.
- 7.5 Prior to exiting the facility, all waste vehicles shall use the wheelwash.

<i>REASON:</i> To provide for the control of nuisances.

CONDITION 8 MONITORING

- 8.1. The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule D: Monitoring*, of this licence. Unless otherwise specified by this licence, all environmental monitoring shall commence no later than two months after the date of grant of this licence.
- 8.2. The licensee shall amend the frequency, locations, methods and scope of monitoring as required by this licence only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.
- 8.3. Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturers' instructions (if any) so that all monitoring results accurately reflect any emission, discharge or environmental parameter.
- 8.4. The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.
- 8.5. The licensee shall maintain all sampling and monitoring points, and clearly label and name all sampling and monitoring locations, so that they may be used for representative sampling and monitoring.
- 8.6. The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.
- 8.7. All persons conducting the sampling, monitoring and interpretation of monitoring results as required by this licence shall be suitably competent.
- 8.8. All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on, unless alternative sampling

or monitoring has been agreed, in writing, by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. Prior written agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.

8.9. Nuisance Monitoring

8.9.1. The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, mud, dust, noise and odours.

<i>REASON:</i>	<i>To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.</i>
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CONDITION 9 CONTINGENCY ARRANGEMENTS

9.1. In the event of an incident the licensee shall immediately:-

- a) identify the date, time and place of the incident;
- b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
- c) isolate the source of any such emission;
- d) evaluate the environmental pollution, if any, caused by the incident;
- e) identify and execute measures to minimise the emissions/malfunction and the effects thereof; and
- f) provide a proposal to the Agency for its agreement within one month of the incident occurring to:-
 - i) identify and put in place measures to avoid reoccurrence of the incident; and
 - ii) identify and put in place any other appropriate remedial action.

9.2. The licensee shall, prior to commencement of waste activities, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations that may originate on the facility and shall include provision for minimising the effects of any emergency on the environment. This shall include a risk assessment to determine the requirements at the facility for fire fighting and fire water retention facilities. The Fire Authority shall be consulted by the licensee during this assessment.

9.3. The licensee shall have in storage an adequate supply of suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.

9.4. Emergencies

9.4.1. In the event of a complete breakdown of equipment or any other occurrence which results in the closure of the transfer station building, any waste arriving at or already collected at the facility shall be transferred directly to appropriate landfill sites or any other appropriate facility until such time as the transfer station building is returned to a fully operational status. Such a breakdown event will be treated as an emergency and rectified as soon as possible.

- 9.4.2. All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.
- 9.4.3. No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.
- 9.4.4. In the event that monitoring of local wells indicates that the facility is having a significant adverse effect on the quantity and/or quality of the water supply this shall be treated as an emergency and the licensee shall provide an alternative supply of water to those affected.

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

CONDITION 10 RECORDS

10.1 The licensee shall keep the following documents at the facility office:-

- a) the current waste licence relating to the facility;
- b) the current EMS for the facility;
- c) the previous year's AER for the facility; and
- d) all written procedures produced by the licensee which relate to the licensed activities.

10.2 The licensee shall maintain a written record for each load of waste arriving at and departing from the facility. The licensee shall record the following:-

- a) the date & time;
- b) the name of the carrier (including if appropriate, the waste collection permit details);
- c) the vehicle registration number;
- d) the name of the producer(s)/collector(s) of the waste as appropriate;
- e) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;
- f) a description of the waste including the associated EWC codes and animal by-product Waste Category designation (where appropriate);
- g) the quantity of the waste, recorded in tonnes;
- h) the name of the person checking the load;
- i) where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed (including the waste permit/licence number of these facilities); and
- j) where applicable a consignment note number (including transfrontier shipment notification and movement/tracking form numbers, as appropriate).

10.3. Written Records

The following written records shall be maintained by the licensee:-

- a) the types and quantities of waste recovered at the facility each year. These records shall include the relevant EWC Codes and animal by-product Category designations (where appropriate);
- b) all training undertaken by facility staff;

- c) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;
 - d) details of all nuisance inspections;
 - e) records of waste inspections carried out in accordance with Condition 5.3.1.; and
 - f) the names and qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.
- 10.4. The licensee shall assign and clearly label a unique reference code to each digestion/composting container at the facility. In addition, the following shall be recorded:-
- a) the time at which digestion/composting of the container contents commenced;
 - b) the time at which digestion/composting of the container contents ceased;
 - c) whether Category 2 or 3 animal by-products was an ingredient in the contents of the digestion/composting container; and
 - d) whether sewage sludge was an ingredient in the contents of the digestion/composting container.
- 10.5. The licensee shall maintain a written record of all complaints relating to the operation of the activity. Each such record shall give details of the following:-
- a) date and time of the complaint;
 - b) the name of the complainant;
 - c) details of the nature of the complaint;
 - d) actions taken on foot of the complaint and the results of such actions; and
 - e) the response made to each complainant.
- 10.6. Where digestate/compost product contains sewage sludge the licensee shall retain the following records on site:-
- a) A copy of the notifications to the Local Authority as required under Article 8 (1) and Article 8 (3) of S.I. No. 148 of 1998 (Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998); and
 - b) This shall include *inter alia*; sludge analysis, records of sludge quantities, sludge properties, treatment type and location/name of the recipient of the sludge (sludge meaning digestate/compost containing treated sludge).
- 10.7. A written record shall be kept at the facility of the programme for the control and eradication of vermin and fly infestations at the facility. These records shall include as a minimum the following:-
- a) the date and time during which spraying of insecticide is carried out;
 - b) contractor details;
 - c) contractor logs and site inspection reports;
 - d) details of the rodenticide(s) and insecticide(s) used;
 - e) operator training details;
 - f) details of any infestations;
 - g) mode, frequency, location and quantity of application; and
 - h) measures to contain sprays within the facility boundary.

- 10.8 Where compost/digestate product of Class 2 level is produced and destined for landspreading, the licensee shall retain the following records on site, unless otherwise agreed with the Agency:-
- a) location and field plot ID's where the waste was landspread;
 - b) maps detailing field plot locations and areas (in hectares);
 - c) weight (in dry matter) of product dispatched; and
 - d) cumulative quantity of product used per field plot.

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

CONDITION 11 REPORTS AND NOTIFICATIONS

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

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

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

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

11.3 Odour Modelling

- 11.3.1 Within twelve months of date of commencement of waste activities (or as directed by the Agency), the licensee shall carry out modelling of all significant odour emissions from the facility. Emissions modelling shall be based on field samples and shall be modelled on a 98%-ile basis. Prior to carrying out this modelling, the licensee shall agree the odour sampling programme (sampling locations, number of samples, state of production *etc.*) with the Agency.

11.4 Monitoring Locations

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

11.5 Archaeology

11.5.1 Prior to commencement of any excavation works in undeveloped land on-site, the licensee shall consult with Development Applications Section of the Department of the Environment, Heritage and Local Government (formerly Dúchas) regarding archaeological supervision of said works.

11.6 National Reporting

11.6.1 The licensee shall submit data as required for the National Waste Database. Such data shall be in accordance with any relevant guidance issued by the Agency.

11.7 Annual Environmental Report

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

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

REASON: <i>To provide for proper reporting and notification of the Agency.</i>

CONDITION 12 CHARGES AND FINANCIAL PROVISIONS

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of 14,192 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 2004 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 2003, the licensee shall pay a *pro rata* amount from the date of this licence to 31st December. This amount shall be paid to the Agency within one month of the date of grant of this licence.

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

12.2 Financial Provision for Closure, Restoration and Aftercare

12.2.1 Prior to the acceptance of any waste at the facility, the licensee shall arrange for a comprehensive and fully costed Environmental Liabilities Risk Assessment of the facility to be carried out. The Environmental Liabilities risk assessment shall have particular regard to any accidents, emergencies, or other incidents, which might occur at the facility and their effect on the environment and shall include the cost of making adequate Financial Provision. The financial provision shall include the costs entered into or incurred in the carrying on of the activities to which this licence relates or will relate including the decommissioning and closure of the facility.

- 12.2.2 Within three months of agreement of the requirements of Condition 12.2.1, the licensee shall establish and maintain a fund or provide a written guarantee for the costs determined under Condition 12.2.1. The type of fund established and the means of its release/recovery shall be agreed by the Agency prior to its establishment.
- 12.2.3 The licensee shall within two weeks of purchase, renewal or revision of the financial provision required under Condition 12.2.2, forward to the Agency written proof of such indemnity.
- 12.2.4 The amount of financial provision, held under Condition 12.2.2 shall be reviewed and revised as necessary, but at least annually. Any proposal for such a revision shall be submitted to the Agency for its agreement.
- 12.2.5 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 : Waste Acceptance

A.1 Waste Acceptance

Table A.1 Waste Categories and Quantities ^{Note 1}

Waste Type	Maximum Waste Quantity To Be Accepted During Relevant Phases	
	Phase I	Phase II
<i>Household Organic Waste</i>	30,000	60,500
<i>Green Waste</i>	10,000	20,000
<i>Industrial and Sewage Sludges</i>	5,000	10,000
<i>Agricultural and Food processing waste</i>	5,000	10,000
TOTAL	50,000	100,500

Note 1: The categories and quantities referred to in this table may be amended with the agreement of the Agency provided the total quantity of waste specified is not exceeded.

SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Installation of silt traps and oil interceptors.
Installation of additional composting/anaerobic digestion capacity (Including Phase II of the facility).
Installation of surface water control works prior to the construction of the facility.
Installation of bunded fuel storage areas.
Installation of wastewater treatment and percolation areas.
Air extraction, handling and biofiltration system.
Any other works notified in writing by the Agency.

SCHEDULE C : Emission Limits

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

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

C.2 Dust Deposition Limits: (Measured at the monitoring points indicated in Table D.1)

Level (mg/m ² /day) ^{Note 1}
350

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

C.3 Emission Limits Values for CHP Plant

Emission Point reference no: CHP-1 (primary Emission from CHP Plant)
 Volume to be emitted: 1500 Nm³/hr ^{Note 1}
 Minimum discharge height: 10m ^{Note 2}

Parameter	Emission Limit Value
Nitrogen oxides as (NO ₂)	500 mg/m ³
CO	650 mg/m ³
Particulates	50 mg/m ³
Sulphur Dioxide as (SO ₂)	500 mg/m ³
Hydrogen Sulphide (H ₂ S)	5 mg/m ³
Hydrogen Chloride	30 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: Volumetric emissions may be increased pro rata with a decrease in concentration of emission.

Note 2: Unless otherwise agreed with the Agency.

C.4 Emission Limit Values from facility biofilters

Emission Point Reference No. BF1 & BF2

Parameter	Emission Limit Value
Ammonia	50 (ppm v/v)
Mercaptans	5 (ppm v/v)
Hydrogen Sulphide	5 (ppm v/v)

SCHEDULE D : Monitoring

D.1 Monitoring Locations (as set out in Figure 7 Revision 01 (Jan 2003) of the EIS.)

Dust & Bioaerosol ^{Note 1}	Noise	Surface Water & Biology	Ground Water	Air
D1, D2, D3 & D4.	N1, N2, N3, N4 NSL1 & NSL2 (as outlined in Table 41 EIS)	SW1, SW2, SW3 & SW4 (‘uncontaminated surface water tank’ ^{Note 2})	BH1, BH2 & BH3	BF1, BF 2 & CHP1 (emission from the CHP Plant)

Note 1: Bioaerosol monitoring to be carried out at one upwind and two downwind locations chosen from D1, D2, D3 or D4.

Note 2: In an emission is not occurring from SW4 (i.e. the uncontaminated surface water tank), then a sample shall be taken from the tank itself.

D.2 Dust and Bioaerosol Monitoring

Parameter	Monitoring Frequency	Analysis Method/Technique
PM ₁₀ (µg/m ³)	Annually	See Note 4
<i>Aspergillus fumigatus</i>	Annually	Grab sample ^{Note 3}
Bacteria	Annually	Grab sample ^{Note 3}
Dust deposition (mg/m ² /day)	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.

Note 3: Enumeration of colonies to be carried out as described in 'Standardised Protocol for the Sampling and Enumeration of Airborne Micro-organisms at composting Facilities' the UK Composting Association 1999.

Note 4: As described in prEN12341 "Air Quality - field test procedure to demonstrate reference equivalence of sampling methods for PM10 fraction of particulate matter" or an alternative agreed in writing with the Agency.

D.3 Noise Monitoring

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 1996. Acoustics - description & Measurement of Environmental noise. Pts 1, 2 & 3

D.4 Surface Water Monitoring

Parameter ^{Note 1}	Monitoring Frequency	Analysis Method/Technique
Visual Inspection	Weekly	Not applicable
Ammoniacal Nitrogen	Quarterly	ISE / Colourimetry
BOD	Quarterly	Electrometry / Titrimetry with nitrification inhibitor
Chloride	Quarterly	Colourimetry / Ion Chromatography
Electrical Conductivity	Quarterly	Electrometry
PH	Quarterly	Electrometry
Total Suspended Solids	Quarterly	Gravimetry
Mineral Oils ^{Note 2}	Annually	Standard Methods ^{Note 1}
Coliforms (total, faecal)	Annually	Membrane filtration or MPN using referenced procedures
Biological ^{Note 3}	Annually	See Note 2

Note 1: All analyses shall be carried out by a competent laboratory using standard and internationally acceptable techniques. The testing laboratory and the testing technique shall be agreed with the Agency in advance.

Note 2: Mineral Oil analysis need only be carried out for monitoring point SW4.

Note 3: This assessment shall use appropriate biological methods such as the EPA Q-rating system for the assessment of rivers and streams.

D.5 Groundwater Monitoring

Parameter ^{Note 1}	Monitoring Frequency	Analysis Method/Technique
Groundwater level	Annually	Not applicable
Ammoniacal Nitrogen (as NH ₄)	Annually	ISE / Colourimetry
Chloride	Annually	Colourimetry / Ion Chromatography
Electrical Conductivity	Annually	Electrometry
pH	Annually	Electrometry
Coliforms (total, faecal)	Annually	Membrane filtration or MPN using referenced procedures

Note 1: All analyses shall be carried out by a competent laboratory using standard and internationally acceptable techniques. The testing laboratory and the testing technique shall be agreed with the Agency in advance.

D.6 Air & Odour Monitoring ^{Note 1}

Biofilters

Parameter	Monitoring Frequency	Analysis Method/Technique
BF1 (Waste reception and mixing area biofilter)		
Bed Media		
Odour assessment ^{Note 2}	Daily	Subjective Inspection
Condition and depth of biofilter ^{Note 3}	Daily	Visual Inspection
Moisture content	Bi-annually	Standard laboratory method
pH	Bi-annually	pH probe
Ammonia	Bi-annually	Standard laboratory method
Total viable counts	Bi-annually	Standard laboratory method
Inlet and Outlet Gas		
Ammonia	Bi-annually	Colourimetric Indicator Tubes
Mercaptans	Bi-annually	Colourimetric Indicator Tubes
Hydrogen sulphide	Bi-annually	Colourimetric Indicator Tubes
BF 2 (composting container biofilters)		
Bed Media		
Odour assessment ^{Note 2}	Weekly	Subjective Inspection
Condition and depth of biofilter ^{Note 3}	Weekly	Visual Inspection
Moisture content	Annually	Standard laboratory method ^{Note 1}
pH	Annually	pH probe
Ammonia	Annually	Standard laboratory method ^{Note 1}
Total viable counts	Annually	Standard laboratory method ^{Note 1}

Note 1: All analyses shall be carried out by a competent laboratory using standard and internationally acceptable techniques. The testing laboratory and the testing technique shall be agreed with the Agency in advance.

Note 2: This subjective assessment should be carried out by a staff member immediately upon arriving on-site

Note 3: The biofilter shall be examined to ensure that no channelling is evident, and that moisture content is adequate. Watering, turning, restructuring and the addition of supplementary bed materials, or total bed replacement shall be carried out, as required, subject to bed performance.

D.7 Combined Heat & Power (CHP) Plant (CHP1)

Parameter	Monitoring Frequency	Analysis Method/Technique
Volumetric Flow rate	Annually	Standard laboratory method
Nitrogen oxides as (NO ₂)	Annually	Standard laboratory method
CO	Annually	Standard laboratory method
Particulates	Annually	Standard laboratory method
Sulphur Dioxide as (SO ₂)	Annually	Standard laboratory method
Hydrogen Sulphide (H ₂ S)	Annually	Standard laboratory method
Hydrogen Chloride	Annually	Standard laboratory method
Hydrogen Fluoride	Annually	Standard laboratory method

D.8 Meteorological Monitoring

Data to be obtained from an on-site weather station prior to commencement of Waste Activities.

Parameter	Monitoring Frequency	Analysis Method/Technique
Precipitation Volume	Monthly	Standard
Wind Force and Direction	Daily	Standard (with data logger)

D.9 Monitoring of Processes

D.9.1: Monitoring of Composting process

Parameter	Monitoring Frequency	Monitoring equipment/method
<ul style="list-style-type: none"> • Composting vessels <i>Temperature vs. time</i> 	Continuous	Temperature probe/recorder
<ul style="list-style-type: none"> • Compost maturation/curing piles <i>Temperature</i> 	Daily	Temperature probe
<ul style="list-style-type: none"> • Compost storage piles <i>Moisture</i> 	Daily	Subjective by operator.
<ul style="list-style-type: none"> • Compost storage piles <i>Temperature</i> 	Weekly (if piles > 4m high)	Temperature probe

D.9.2: Monitoring of Anaerobic Digestion Process

Parameter	Monitoring Frequency	Monitoring equipment/method
Sterilisation Unit		
• <i>Temperature vs. time</i>	Continuous	Temperature probe/recorder
• <i>Pressure</i>	Continuous	Pressure Gauge/recorder
Digestion vessels		
• <i>pH</i>	Continuous	pH probe/recorder
• <i>Temperature vs. time</i>	Continuous	Temperature probe/recorder
• <i>Total Volatile Fatty Acids</i>	Daily	Standard method
• <i>Individual Volatile Fatty Acids</i>	See Note 1	Standard method
• <i>Volume of Biogas production</i>	Continuous	Standard method
• <i>% Methane</i>	Continuous	Standard method

Note 1: Individual Volatile Fatty Acids to be monitored if total Volatile Fatty Acids exceed design levels.

SCHEDULE E : Process Management

Table E.1 Waste Sterilisation. All Category 2 Animal By-Product waste shall be exposed to the following processing regime ^{Note 1}

Temperature & Pressure	Particle size	Treatment time
At least 133°C and 3Bar	≤ 50mm	At least 20 minutes

Table E.2 Anaerobic digestion (AD). During the AD process, any waste which has not been subject to the treatment regime described in Table E.1, shall be exposed to the following processing regime ^{Note 1}

Temperature	Treatment time
At least 70°C	At least 1 hour

Table E.3 Composting. During the composting process the entire quantity of biowaste being composted shall be exposed to the following processing regime ^{Note 1}

Temperature	Treatment time
At least 60°C	1 week

Table E.4 Process validation. Both the composting and digestion process shall be tested using the following indicator organism ^{Note 1}

Indicator Organism	Frequency
Salmonella spp.	Annually ^{Note 2}

Note 1: This may be adjusted subject to the requirements of National or EU Legislation, or with the agreement of the Agency.

Note 2: This shall be repeated if major changes to the composition of the incoming biowaste or the treatment process are made.

SCHEDULE F : Recording and Reporting to the Agency

Report	Reporting Frequency ^{Note 1}	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 calendar year thereafter.
Record of incidents	As they occur	Within five days of the incident.
Bund, tank and container integrity assessment	Every three years	Six months from the date of grant of licence and one month after end of the three year period being reported on.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Monitoring of Surface Water Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Groundwater Quality	Annually	One month after end of the year being reported on.
Monitoring of Air Quality	Bi-annually	Ten days after the period being reported on.
Dust Monitoring	Annually	One month after end of the year being reported on.
Digestate/Compost Monitoring	Quarterly	Ten days after end of the quarter being reported on.
Noise Monitoring	Annually	One month after end of the year being reported on.
Any other monitoring	As they occur	Within one month of obtaining results.

Note 1: Unless altered at the request of the Agency

SCHEDULE G : Digestate/Compost Quality

Digestate/compost shall be deemed unsatisfactory if more than 25% of samples fail the criteria below. No sample shall exceed 1.2 times the quality limit values set.

[The following criteria (where they apply to compost) 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].

1. Maturity

The state of the curing pile must be conducive to aerobic biological activity.

Compost shall be deemed to be mature if it meets two of the following groups of requirements:-

1. Respiration activity after four days AT₄ is ≤10mg/O₂/g dry matter or Dynamic Respiration Index is ≤1,000mgO₂/kg VS/h;
2. 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;
3. Compost must be cured for at least 21 days; and
Compost will not reheat upon standing to greater than 20°C above ambient temperature;
4. If no other determination of maturity is made, the compost must be cured for a six month period. In addition, offensive odours from the compost shall be minimal for the compost to be deemed mature; and
5. Or other maturity tests as may be agreed with the Agency.

2. Maximum Trace Element Concentration Limits ^{Note s 1, 2 & 3}

Parameter (mg/kg, dry mass)	Digestate Quality Standards ^{Note 4} Compost Quality Standards ^{Note 4}		Stabilised Biowaste
	Class 1	Class 2	
Cadmium (Cd)	0.7	1.5	5
Chromium (Cr)	100	150	600
Copper (Cu)	100	150	600
Mercury (Hg)	0.5	1	5
Nickel (Ni)	50	75	150
Lead (Pb)	100	150	500
Zinc (Zn)	200	400	1500
PolyChlorintated Biphenyls (PCB's)	-	-	0.4
Polynuclear Aromatic Hydrocarbons (PAH's)	-	-	3
Impurities >2mm ^{Note 5}	<0.5%	<0.5%	<3%
Gravel and Stones >5mm ^{Note 5}	<5%	<5%	-

Note 1: These limits apply to the digestate/compost prior to mixing with any other materials.

Note 2: Incoming sludges shall be monitored quarterly (on a client by client basis) for the parameters outlined in this table.

Note 3: 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.

Note 4: Normalised to 30% organic matter content.

Note 5: 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.

3. Pathogens

Pathogenic organism content must not exceed the following limits:

Salmonella sp.	Absent in 50g	n=5
Faecal Coliforms	≤1000 Most Probable Number (MPN) in 1g	n=5

Where: n = Number of samples to be tested.

4. Monitoring

The licensee shall monitor the digestate/compost product at least monthly. The licensee shall submit to the Agency for its agreement, prior to commencement of the anaerobic digestion and/or composting operations, details of the sampling protocol, methods of analyses and number of sample.

SCHEDULE H : 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 recovered, received and disposed of during the reporting period and each previous year (relevant EWC codes to be used). This should also include details of all animal by-product wastes treated.

Summary report on emissions.

Summary of results and interpretations of environmental monitoring, including a location plan of all monitoring locations.

Resource and energy consumption summary (including water usage).

Development / Infrastructural works in place and planned, to process waste quantities projected for the following year (including plant operating capacity, provision of adequate standby capacity and provision of contingency, backup and spares in the case of breakdown).

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, drum, 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 may be revised subject to the agreement of the Agency

Signed on behalf of the said Agency
on the 8th day of September 2003

Ray Cullinane

Authorised Person