

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

WASTE LICENCE

Waste Licence	183-1
Register No:	
Licensee:	Greenstar Limited
Location of Facility:	Millennium Business Park, Grange, Ballycoolin, Dublin 11.

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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 development of a non-hazardous waste recycling and transfer facility at a greenfield site in the Millennium Business Park, Grange, Ballycoolin, Dublin 11. Greenstar Limited (t/a Greenstar) will be permitted to accept non-hazardous municipal, industrial, commercial, construction and demolition and organic wastes at the facility.

The maximum quantity of waste to be accepted at the facility is 270,000 tonnes per annum. The licence provides for the phased development of the facility which will entail the construction of two main waste handling buildings: a biowaste treatment unit and a waste recovery/transfer building. The biowaste treatment unit can accept a maximum of 50,000 tonnes of biowaste per annum subject to the licensee undertaking an odour impact study and implementing the findings of the study. Up to 220,000 tonnes of non-hazardous waste may be accepted at the waste recovery/transfer building and this building will be developed in three phases.

The licensee must manage and operate the facility to ensure that 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 Greenstar Limited will operate and manage this facility.

DECISION & REASONS FOR THE DECISION

Reasons for the Decision

The Environmental Protection Agency (the Agency) is satisfied, on the basis of the information available, that the waste activity, or activities, licensed hereunder will comply with the requirements of Section 40(4) of the Waste Management Act, 1996.

In reaching this decision the Agency has considered the application and supporting documentation received from the applicant, all submissions and an objection received and the reports of its inspectors.

Part I Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Agency, under Section 40(1) of the said Act hereby grants this Waste Licence to Greenstar Limited to carry on the waste activity/activities listed below at Millennium Business Park, Grange, Ballycoolin, Dublin 11 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 the mixture of wastes at the facility prior to the waste being removed off-site for disposal.
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 wastes at the facility prior to the waste being removed off-site for disposal.
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 the storage of wastes at the facility prior to being removed off-site for disposal.

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 treatment and composting of organic waste at the facility.
Class 3.	Recycling or reclamation of metals and metal compounds: This activity is limited to the collection, segregation and recovery of waste metals at the facility.
Class 4.	Recycling or reclamation of other inorganic materials: This activity is limited to the collection, segregation and recovery of inorganic materials (e.g. some construction and demolition wastes, glass, etc) at the facility.
Class 11.	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule: This activity is limited to the use of recovered organic wastes as a bulking agent in the on-site composting activities.
Class 12.	Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule: This activity is limited to the exchange of recovered wastes at the facility.
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 wastes at the facility prior to removal off-site for recovery.

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.
Animal by-products Regulation	Regulation (EC) No 1774/2002 laying down health rules concerning animal by-products not intended for human consumption (3 October 2002).
Annually	At approximately twelve monthly intervals.
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 Technology as defined in Section 5(2) of the Act.
Bi-annually	All or part of a period of six consecutive months.
Bi-monthly	All or part of a period of two consecutive months.
Biodegradable Waste (Biowaste)	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
Condition	A condition of this licence.
Consignment Note	All movements of hazardous waste within Ireland must be accompanied by a "C1" consignment note issued by a local authority under the Waste Management (Movement of Hazardous Waste) Regulations (SI No. 147 of 1998). Transfrontier shipment notification and movement/tracking form numbers are required for all exports of waste from, into or through the state under the Waste Management (Transfrontier Shipment of Waste) Regulations (SI No. 149 of 1998).
Construction and Demolition Waste	All wastes which arise from construction, renovation and demolition activities.
Containment boom	A boom which can contain spillages and prevent them from entering drains or watercourses.
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.
Emergency	Those occurrences defined in Condition 8.4.

Emission Limits	Those limits, including concentration limits and deposition levels established in Schedule C: Emission Limits, 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 and any subsequent amendment published in the Official Journal of the European Community.
Wastewater	Sewage and drainage from waste transfer building, biowaste treatment building vehicle wash, weighbridges, vehicle cleaning and run-off from hardstanding areas associated with waste handling, storage or processing.
Green waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
Hours of Operation	The hours during which the facility is authorised to be operational. The hours of operation of a facility are usually longer than the hours of waste acceptance to facilitate preparatory and completion works, such as the removal and laying of daily cover. Different activities within the facility, such as the civic waste facility, may have different hours of waste acceptance.
Hours of Waste Acceptance	The hours during which the facility is authorised to accept waste. Different activities within the facility, such as the civic waste facility, may have different hours of waste acceptance.
Industrial 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.
Landfill Directive	Council Directive 1999/31/EC
Licence	A Waste Licence issued in accordance with the Act.
Licensee	Greenstar Limited.
Liquid Waste	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to adequately perform its function.
Monthly	A minimum of 12 times per year, at approximately monthly intervals.
Municipal waste	As defined in Section 5(1) of the Act.
Night-time	10.00 p.m. to 8.00 a.m.
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, e.g. oil and petrol).

Recyclable Materials	Those waste types, such as cardboard, batteries, gas cylinders, etc, which may be recycled.
Quarterly	At approximately three monthly intervals.
Sanitary Authority	Fingal County Council.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
Specified Emissions	Those emissions listed in Schedule C: Emission Limits, of this licence.
Specified Engineering Works	Those engineering works listed in Schedule B: Specified Engineering Works, of this licence.
Weekly	During all weeks of plant operation, and in the case of emissions, when emissions are taking place with no more than one measurement in any one week.
White Goods	Refrigerators, cookers, ovens and other similar appliances.
EPA Working Day	Refers to the following hours; 9.00 a.m. to 5.30 p.m. Monday to Friday inclusive.

PART II CONDITIONS

CONDITION 1 SCOPE OF THE LICENCE

- 1.1. Waste activities at the facility shall be restricted to those listed and described in Part I: Activities Licensed and authorised by this licence.
- 1.2. For the purposes of this licence, the facility is the area of land outlined in red on Drawing No. PP-002 "Site location Map" 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. Only those waste categories and quantities listed in Schedule A: Waste Acceptance, shall be accepted at the facility.
- 1.5. No hazardous wastes, liquid wastes or sewage sludge shall be accepted at the facility.
- 1.6. Waste Acceptance and Handling Hours
 - 1.6.1. Waste shall be accepted at the facility only between the hours of 6.30am and 7.00pm Monday to Saturday inclusive.
 - 1.6.2. Waste shall be handled only during the hours of 6.00am to 8.00pm Monday to Saturday.
 - 1.6.3. Waste shall not be accepted at the facility on Sundays or Bank Holidays.
- 1.7. The following shall constitute an incident for the purposes of this licence:
 - a) an emergency;
 - b) any emission which does not comply with the requirements of this licence;
 - c) any 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.
- 1.8. Where the Agency considers that a non-compliance with any condition of this licence has occurred, it may serve a notice on the licensee specifying:
 - 1.8.1. That 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;
 - 1.8.2. 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; and
 - 1.8.3. 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.

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

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

CONDITION 2 MANAGEMENT OF THE FACILITY

2.1 Facility Management

- 2.1.1 Prior to the commencement of waste activities at the facility, 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 the hours of waste acceptance and handling specified in Condition 1.6.
- 2.1.2 Both the facility manager and deputy, and any replacement manager or deputy, shall successfully complete both the FAS Waste Management Training Programme (or equivalent agreed by 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 at the facility, 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; and
 - c) details of the relevant education, training and experience held by each of the persons nominated under a) above.

2.3 Environmental Management System (EMS)

- 2.3.1 The licensee shall establish and maintain an EMS. Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement a proposal for a documented Environmental Management System (EMS) for the facility. Following the agreement of the Agency, the licensee shall establish and

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

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

2.3.2.1 Schedule of Environmental Objectives and Targets

The objectives should be specific and the targets measurable. The Schedule shall address a 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;
- (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.

2.3.2.4 Awareness and Training Programme

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

2.4 Communications Programme

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

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

CONDITION 3 FACILITY INFRASTRUCTURE

3.1 The licensee shall establish all infrastructure referred to in this licence either 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. No such works shall be carried out without the prior agreement of the Agency.

- 3.2.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 3.2.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall include the following information:
- a) a description of the works;
 - b) as-built drawings of the works;
 - c) records and results of all tests carried out (including failures);
 - d) drawings and sections showing the location of all samples and tests carried out;
 - e) daily record sheets/diary;
 - f) name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;
 - g) name(s) of individual(s) responsible for supervision of works and for quality assurance validation of works;
 - h) records of any problems and the remedial works carried out to resolve those problems; and
 - i) any other information requested in writing by the Agency.

3.3 Facility Notice Board

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

3.3.2 The board shall clearly show:

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

3.4 Facility Security

3.4.1 Prior to the commencement of waste activities, security fencing/barriers and gates shall be installed and maintained at the facility boundary. The security fence and gates shall be as shown on Drawing No. PP-008 of the application.

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 Acoustic Barrier

3.5.1 The licensee shall provide a 2.4m high acoustic barrier along all of the boundaries of the facility adjoining the Millennium Business Park (as proposed in the application).

3.6 Facility Roads and Hardstanding

- 3.6.1 Site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.
- 3.6.2 All areas at the facility, other than areas being maintained for planting/landscaping shall be paved.
- 3.6.3 The licensee shall provide, and maintain an impermeable surface in the areas of the facility shown on Drawing No. PP-006. In addition, any areas used for vehicle parking, maintenance and refuelling, waste handling and/or storage shall be an impermeable surface.
- 3.7 Facility Office
- 3.7.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 3.7.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.
- 3.8 Waste Quarantine Area
- 3.8.1 Waste Quarantine Areas shall be provided and maintained in each building at which waste is accepted at the facility.
- 3.8.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate for the quarantine of waste if required. The waste quarantine areas shall be clearly identified and segregated.
- 3.8.3 Drainage from these areas shall be directed to the wastewater drainage system.
- 3.9 Weighbridge and Vehicle Cleaning
- 3.9.1 The licensee shall provide and maintain two weighbridges at the facility, one for incoming wastes and the other for outgoing wastes.
- 3.9.2 The licensee shall provide a vehicle cleaning unit at the facility and any drainage from this area shall be directed to the wastewater drainage system.
- 3.10 Waste handling, ventilation and processing plant
- 3.10.1 Items of plant deemed critical to the efficient and adequate processing of waste at the facility (including *inter alia* waste loading vehicles and ejector trailers) shall be provided on the following basis:
- 100% duty capacity;
 - 50% standby capacity available on a routine basis;
 - Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.
- 3.10.2 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.

3.10.3 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.

3.11 Tank and Drum Storage Areas

3.11.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.

3.11.2 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.

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

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

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

3.12 Silt Traps and Oil Separators/Interceptors

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

3.13 Drainage system, pipeline testing

3.13.1 Prior to the commencement of waste activities, all foul sewer gullies, drainage grids and manhole covers shall be painted with red squares whilst all surface water discharge gullies, drainage grids and manhole covers shall be painted with blue triangles. These colour codes shall be maintained so as to be visible at all times during facility operation, and any identification designated in this licence (e.g. SW1) shall be inscribed on these manholes.

3.13.2 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.

3.13.3 The integrity and water tightness of all underground pipes and tanks and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee and shall be reported to the Agency following their installation and prior to their use. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

- 3.13.4 The licensee shall provide on-site storage tanks for the collection and temporary storage of roof water from the biowaste treatment building and materials recovery/transfer building respectively. This water shall be re-used in the process where possible.
- 3.13.5 The licensee shall provide silt fences/barriers in the surface water collection system up to and until all of the facility has been paved as required by this licence. The licensee shall maintain the silt fences at all times.
- 3.13.6 Isolation valves shall be provided and maintained on the surface water and wastewater drainage systems.
- 3.14 Firewater Retention
- 3.14.1 Prior to the commencement of waste activities the licensee shall provide firewater storage capacity at the facility. The size and nature of the firewater storage shall be agreed in advance by the Agency.
- 3.15 Waste Acceptance and Handling Areas.
- 3.15.1 Municipal Waste Area within the waste recovery/transfer building
- (i) Prior to the acceptance of municipal waste at the facility, the licensee shall provide a dedicated area for the acceptance and handling of such waste.
 - (ii) Prior to the acceptance of municipal waste at the facility the licensee shall provide a dedicated system for the control of odour emissions. The licensee shall include details of this odour control system as part of the AER. The licensee shall, at such time as the Agency considers necessary, undertake an assessment of the environmental performance of the odour control system. In the event that the assessment demonstrates that the odour control system is inadequate the licensee shall implement abatement measures, including air extraction and filtration, within a period specified by the Agency.
 - (iii) The municipal waste area shall be designed to allow for the inspection of all incoming waste loads when tipped.
- 3.15.2 Construction and Demolition Waste Area within the waste recovery/transfer building
- (i) Prior to the acceptance of construction and demolition waste at the facility the licensee shall provide a dedicated area for the acceptance, handling and storage of such waste.
 - (ii) A localised dust suppression system shall be provided at the construction and demolition waste area.
 - (iii) Suitably sized waste storage bays and bays for the storage of recovered materials shall be provided.
- 3.15.3 Commercial and Industrial / Pre-Segregated Waste Acceptance Area within the waste recovery/transfer building
- (i) The licensee shall provide an area of suitable size for the acceptance handling and processing of commercial and industrial wastes.
 - (ii) The licensee shall provide designated areas for the storage of baled materials prior to their removal off-site.

- (iii) The licensee shall provide noise and dust control measures at any shredders and/or screens used for processing of commercial and industrial wastes at the facility.

3.15.4 Biowaste treatment facility

- (i) Unless otherwise agreed in advance by the Agency, the licensee shall provide a biowaste treatment system as proposed in the waste licence application.
- (ii) The biowaste treatment facility shall be constructed on a phased basis. The licensee shall not extend the biowaste treatment operations to accept more than 25,000 tonnes of biowaste per annum until the recommendations of the odour impact report have been implemented as required by Condition 10.3.
- (iii) The composting unit shall as a minimum include/consist of the following:
- (a) A fully enclosed building for the acceptance, inspection and treatment of all biowaste;
- (b) Designated areas for the acceptance, temporary storage and pre-treatment of biodegradable waste, a fully aerated biowaste treatment area and designated areas for the storage of processed compost;
- (c) A fully controllable system for the aeration of the biowaste/compost and a sprinkler system for the addition of moisture to the biowaste/compost as required.
- (d) An odour abatement system which satisfies the following requirements;
- Installation and maintenance of integrity and negative pressure throughout the building to ensure no significant escape of odours or dust.
 - Installation of an odour management system that shall include water scrubber(s) and suitably sized biofilter(s). All emissions from the biofilter(s) shall be discharged via a stack located 16m above ground level.
 - Provision of 100% duty capacity and 50% stand by capacity, back ups and spares must be provided for the air handling, ventilation and abatement plant.
 - Emissions from the biofilter shall not exceed those ELV's as set out in *Schedule C: Emission Limits*, of this licence.

3.16 Monitoring Infrastructure

3.16.1 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 FACILITY OPERATIONS

- 4.1 All waste acceptance, handling and processing shall be carried out indoors.
- 4.2 Waste Acceptance and Characterisation Procedures
 - 4.2.1 No Category 1 or Category 2 wastes as defined in animal by-products regulation shall be accepted at the facility.
 - 4.2.2 Prior to commencement of waste acceptance at the facility, the licensee shall establish and maintain detailed written procedures for the acceptance and handling of wastes.
 - 4.2.3 Waste arriving at the facility shall be weighed, documented and directed to the Waste Transfer Building or biowaste treatment building as appropriate. Each load of waste arriving at the Waste Transfer and Biowaste Treatment Buildings shall be inspected upon tipping within this building. Only after such inspections shall the waste be processed for disposal or recovery.
 - 4.2.4 Any waste deemed unsuitable for processing at the facility and/or in contravention of this licence shall be immediately separated and removed from the facility at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area(s). Waste shall be stored under appropriate conditions in the quarantine area to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition.
 - 4.2.5 A record of all inspections of incoming waste loads shall be maintained.
 - 4.2.6 Wastes shall be accepted from waste carriers only who are in possession of a current waste collection permit (where required).
- 4.3 Operational Controls
 - 4.3.1. The floor of the municipal waste area and areas used to off-load waste in the waste transfer building (other than the C&D area) shall be cleared of all waste at the end of the working day. Only non-putrescible waste may be stored overnight in the dedicated storage bays prior to recovery.
 - 4.3.2 The floor of the reception/pre-treatment area within the biowaste treatment building shall be cleared of all waste at the end of the working day.
 - 4.3.3 All waste handling/processing plant shall be cleared of all waste and washed down on a weekly basis.
 - 4.3.4 All pre-treatment of biowaste and compost screening shall be carried out inside the biowaste treatment building.
 - 4.3.5 All wastewater from composting operations shall be collected and re-used in the composting process where possible. Any wastewater from the composting operations that is not re-used shall be either discharged to the wastewater drainage system or tankered off-site for treatment at a location to be agreed in advance by the Agency.
 - 4.3.6 Any biowaste accepted at the facility for composting (other than bulking agents, e.g. woodchip, cardboard) shall be processed and put into the aerated composting area within twenty four hours of its arrival at the facility, subject to review in the event of a nuisance.
 - 4.3.7 The licensee shall ensure that the doors to the biowaste treatment building remain closed at all times other than to facilitate the delivery/removal of wastes from the building.

- 4.3.8 The licensee shall on a daily basis monitoring and record the temperature and the moisture content of the material at a number of locations to be agreed in advance by the Agency.
- 4.3.9 Scavenging shall not be permitted at the facility.
- 4.3.10 Gates shall be locked shut when the facility is unsupervised.
- 4.3.11 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 4.3.12 Fuels shall be stored only at appropriately banded locations on the facility.
- 4.3.13 All tanks and drums shall be labelled to clearly indicate their contents.

4.4 Compost

- 4.4.1 In order not to be considered a waste, compost produced by the facility shall comply with the quality standards established in *Schedule F: Standards for Compost Quality*, of this licence. Analysis of the compost shall be in accordance with the requirements of that Schedule.

4.5 Off-site Disposal and Recovery

- 4.5.1 Waste sent off-site for recovery or disposal shall be conveyed only by a waste contractor agreed by the Agency;
- 4.5.2 All waste transferred from the facility shall be transferred only to an appropriate facility agreed by the Agency;
- 4.5.3 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.

4.6 Construction and Demolition Waste Recovery Area

- 4.6.1 Only Construction and Demolition waste shall be accepted at this Area. Wastes which are capable of being recovered shall be separated and shall be stored temporarily in this area prior to being subjected to other recovery activities at the facility or their transport off-site from the facility.
- 4.6.2 All stockpiles shall be maintained so as to minimise dust generation.

4.7 Wastewater Management

- 4.7.1 All wastewater generated at the facility, other than wastewater that is reused at the facility and/or tankered off-site shall be discharged to sewer.

4.8 Maintenance

- 4.8.1 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.
- 4.8.2 All tank structures on the facility shall be inspected and certified fit for purpose prior to use and every three years by an independent and appropriately qualified chartered engineer.
- 4.8.3 The licensee shall maintain and clearly label and name all sampling and monitoring locations.
- 4.8.4 The licensee shall maintain all waste handling plant accordance with the manufacturers instructions.

4.9 Landscaping

- 4.9.1 Landscaping of the facility (as proposed in Drawing PP-006 of the waste licence application) shall be carried out within 12 months of the date of grant of this licence.
- 4.9.2 The licensee shall retain the existing hedgerow network that forms the eastern and northern boundaries of the facility.

- 4.9.3 The licensee shall carry out an annual review of the existing landscaping/planting programme at the facility and shall carry out any additional planting where deemed necessary.

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

CONDITION 5 EMISSIONS

- 5.1. 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.
- 5.2. 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.
- 5.3. Emission limits for emissions to atmosphere in this licence shall be interpreted in the following way:-
- 5.3.1. 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.
- 5.4. Emissions to Surface Water
- 5.4.1. The trigger levels for surface water discharges from the facility measured at monitoring points SW-1 and SW-2 are:
- (a) BOD 25mg/l
 - (b) Suspended Solids 35mg/l
 - (c) Mineral Oils 5mg/l
- 5.4.2. No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.
- 5.5. There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the noise sensitive locations.
- 5.6. No wastewater shall be discharged to surface water.
- 5.7. Wastewater emissions to Sewer
- 5.7.1. Unless otherwise agreed in advance by the Agency and the Sanitary Authority, the following shall apply for the discharge of wastewater, which shall be via the wastewater discharge line from the facility. There shall be no other discharge or emission to sewer of environmental significance.

- 5.7.2 No substance shall be present in emissions to sewer in such concentrations as would constitute a danger to sewer maintenance personnel working in the sewerage system, or as would be damaging to the fabric of the sewer, or as would interfere with the biological functioning of a downstream wastewater treatment works.
- 5.7.3 The licensee shall permit authorised persons of the Agency and the Sanitary Authority to inspect, examine and test, at all reasonable times, any works and apparatus installed, in connection with the discharge or emission, and to take samples of the discharge or emission.
- 5.7.4 No discharge or emission to sewer shall take place which might give rise to any reaction within the sewer or to the liberation of by-products which may be of environmental significance.
- 5.7.5 The licensee shall ensure that the discharge shall not contain dissolved methane, petroleum spirits or organic solvents (including chlorinated organic solvents), at concentrations which would give rise to flammable or explosive vapours in the sewer.
- 5.7.6 Non-trade effluent wastewater (e.g. firewater, accidental spillage) which occurs on-site shall not be discharged to the sewer without the prior authorisation of the Sanitary Authority.
- 5.7.7 The licensee shall provide and maintain an inspection chamber in a suitable position in connection with each pipe through which a discharge or emission is being made. Each such inspection chamber or manhole shall be constructed and maintained by the licensee so as to permit the taking of samples of the discharge.
- 5.7.8 The licensee shall submit monitoring results to the Sanitary Authority on an annual basis.
- 5.7.9 Materials classifiable as “Hazardous Wastes” under the Waste Management Act, 1996, shall not be discharged to the foul sewer.
- 5.7.10 Wastewater discharges shall be screened prior to discharge to remove gross solids and avoid blockages in the sewer.
- 5.8 Emission limit values for wastewater emissions to sewer in this licence shall be interpreted in the following way:-
- a) Non-Continuous monitoring.
- Eight out of ten consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling shall not exceed 1.2 times the emission limit value.
- b) No grab sample shall exceed 1.2 times the emission limit value.

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

CONDITION 6 NUISANCE CONTROL

- 6.1 The licensee shall ensure that vermin, birds, flies, mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.
- 6.2 No wastes shall be stored outdoors, unless agreed in advance by the Agency.

- 6.3 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.
- 6.4 Litter Control
- 6.4.1 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 10.00am of the next working day after such waste is discovered.
- 6.4.2 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.
- 6.5 Dust/Odour Control
- 6.5.1 All waste for disposal stored overnight at the facility, shall be stored in suitably covered and enclosed containers within the Waste Transfer Building and shall be removed from the facility within forty eight hours of its arrival at the facility.
- 6.5.2 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.
- 6.5.3 In addition to the requirements of Condition 3.15 and prior to the commencement of the waste activities at the facility, the licensee shall install and provide adequate measures for the control of odours and dust emissions, including fugitive dust emissions, from the facility. Such measures shall at a minimum include the following:
- 6.5.3.1 The doors of the waste transfer building shall be kept closed where possible. The licensee shall, to the satisfaction of the Agency, provide and maintain heavy duty plastic sheeting along the top of the door openings which extends down as far as possible that avoids damage by vehicle movements.
- 6.5.3.2 Installation of an odour management system in all other areas of the facility not covered under Condition 3.15; and
- 6.5.3.3 Provision of 100% duty capacity and 50% stand by capacity, back ups and spares must be provided for the air handling, ventilation and abatement plant.

REASON: *To provide for the control of nuisances*

CONDITION 7 MONITORING

- 7.1 The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule D: Monitoring*, of this licence and as specified in this licence. Unless otherwise specified by this licence, all environmental monitoring shall commence no later than two months after the date of grant of this licence.
- 7.2 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.

- 7.3 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.
- 7.4 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.
- 7.5 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.
- 7.6 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.
- 7.7 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.
- 7.8 Groundwater Monitoring
- 7.8.1 The licensee shall monitor and record the volume of groundwater being used at the facility on a daily basis.
- 7.9 Archaeological Assessment
- 7.9.1 Prior to the development of any undisturbed area, the advice of The Development Applications Section of The Department of the Environment, Heritage and Local Government, (formerly Dúchas) shall be sought. On completion of such development a report of the results of any archaeological monitoring shall be submitted to The Development Applications Section and to the Agency.
- 7.10 Nuisance Monitoring
- 7.10.1 The licensee shall, on a daily basis, inspect the facility and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, mud, dust and odours.
- 7.10.2 The licensee shall on a daily basis inspect the odour and dust control systems in the biowaste treatment building and the waste recovery/transfer building.
- 7.11 Meteorological Monitoring
- 7.11.1 The licensee shall provide suitable infrastructure at the facility for the monitoring of wind speed, wind direction and rainfall on a daily basis.
- 7.12 Compost Quality
- 7.12.1 Compost quality monitoring shall be undertaken as set out in *Schedule F: Standards for Compost Quality*, of this licence.
- 7.13 Data Management System
- 7.13.1 The licensee shall, prior to the commencement of waste activities, 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 conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

CONDITION 8 CONTINGENCY ARRANGEMENTS

- 8.1 In the event of an incident the licensee shall immediately:
- a) identify the date, time and place of the incident;
 - b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
 - c) isolate the source of any such emission;
 - d) evaluate the environmental pollution, if any, caused by the incident;
 - e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - f) provide a proposal to the Agency for its agreement within one month of the incident occurring to:
 - i) identify and put in place measures to avoid reoccurrence of the incident; and
 - ii) identify and put in place any other appropriate remedial action.
- 8.2 The licensee shall, prior to commencement of waste activities at the facility, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment. This shall include a risk assessment to determine the requirements at the facility for fire fighting and fire water retention facilities. The Fire Authority shall be consulted by the licensee during this assessment.
- 8.3 The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.
- 8.4 Emergencies
- 8.4. 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.
 - 8.4. 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.
 - 8.4. 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.

CONDITION 9 RECORDS

- 9.1 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.
- 9.2 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;
 - 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;
 - 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 licence/permit and/or waste collection permit); and
 - j) where applicable a consignment note number (including transfrontier shipment notification and movement/tracking form numbers, as appropriate).
- 9.3 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;
 - b) all training undertaken by facility staff;
 - c) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;
 - d) details of all nuisance inspections; and
 - e) the names and qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.
- 9.4 The licensee shall maintain a written record of all complaints relating to the operation of the activity. Each such record shall give details of the following:
- a) date and time of the complaint;
 - b) the name of the complainant;

- c) details of the nature of the complaint;
 - d) actions taken on foot of the complaint and the results of such actions; and,
 - e) the response made to each complainant.
- 9.5 A written record shall be kept of each consignment of wastewater removed from the facility. The record shall include the following:
- a) the name of the carrier;
 - b) the date and time of removal of wastewater from the facility;
 - c) the volume of wastewater, in cubic metres, removed from the facility on each occasion;
 - d) the name and address of the Waste Water Treatment Plant to which the wastewater was transported; and
 - e) any incidents or spillages of wastewater during its removal or transportation.
- 9.6 A written record shall be kept of all inspections of the on-site odour and dust control systems located in the biowaste treatment building and the waste recovery/transfer building.
- 9.7 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.

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

CONDITION 10 REPORTS AND NOTIFICATIONS

- 10.1 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:
- (a) be sent to the Agency's headquarters;
 - (b) comprise one original and three copies unless additional copies are required;
 - (c) be formatted in accordance with any written instruction or guidance issued by the Agency;
 - (d) include whatever information as is specified in writing by the Agency;
 - (e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;

- (f) be submitted in accordance to the relevant reporting frequencies specified by this licence, such as in *Schedule E: Recording and Report 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.

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

- a) notify the Agency as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident;
- b) submit a written record of the incident, including all aspects described in Condition 9.1(a-e), to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident;
- c) in the event of any incident which relates to discharges to surface/sewer water, notify the Eastern Regional Fisheries Board as soon as practicable and in any case not later than 10:00am 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.

10.3 Odour

10.3.1 Prior to the acceptance of biowaste for composting/treatment at the facility the licensee shall submit a report to the Agency for its agreement on the commissioning and operation of the scrubbers/biofilter on a phased basis in order to ensure adequate odour control at the facility.

10.3.2 Following the operation of the biowaste treatment facility for a period of not less than nine months the licensee shall complete an odour impact assessment that shall include the following:

- i) Actual odour monitoring (a) of all significant emissions from the biowaste treatment facility (b) at a number of locations along the facility boundary and (c) at nearby sensitive locations to be agreed by the Agency. Prior to carrying out this monitoring, the licensee shall submit the odour sampling programme for agreement by the Agency.
- ii) An assessment of any complaints that may have been received during the operation of the facility that may indicate odour emissions from the facility may have caused a nuisance.
- iii) Odour impact modelling using actual data which has been obtained at the facility. Such modelling shall be carried out to reflect the tonnages being processed at the time of the monitoring and also for the following annual tonnages: 25,000 tonnes, 37,500 tonnes and 50,000 tonnes.

10.3.3 Based on the results and findings of the odour impact assessment completed as per Condition 10.3.2 the licensee shall submit proposals and recommendations for the potential expansion of the biowaste treatment facility to the Agency for its agreement. This shall include the need to provide proposals for additional odour abatement where necessary.

10.3.4 The licensee shall implement the recommendations of the odour impact assessment within a timeframe agreed in advance by the Agency.

- 10.4 Within six months of the date of grant of this licence the licensee shall submit a report to the Agency outlining how they intend to ensure that composting activities at the facility shall meet the requirements of the Animal By-Products Regulation.
- 10.5 Waste Recovery Reports
- 10.5.1 Within three months of the date of commencement of waste activities at the facility, a report examining waste recovery options shall be submitted to the Agency for its agreement. This report shall address methods to contribute to the achievement of the recovery targets stated in national and European Union waste policies and shall include the following:
- a) proposals for the contribution of the facility to the achievement of targets for the reduction of biodegradable waste to landfill as specified in the Landfill Directive;
 - b) the separation of recyclable materials from the waste;
 - c) the recovery of Construction and Demolition Waste;
 - d) the recovery of metal waste and white goods including written procedures for the de-gassing of CFC's from refrigerators;
 - e) the recovery of commercial waste, including cardboard; and
 - f) composting of biodegradable or green waste at the facility having regard to good practice and sustainability.
- 10.6 Restoration and Aftercare
- 10.6.1 A proposal for a Decommissioning and Aftercare Plan for the facility shall be submitted to the Agency within twelve months of the date of grant of this licence. The licensee shall update this plan when required by the Agency.
- 10.7 Vermin and Pests
- 10.7.1 Prior to the commencement of waste activities, the licensee shall submit to the Agency for its agreement a proposal for the control and eradication of vermin and pests at the facility. This proposal should include as a minimum, operator training, details on the rodenticide(s) and insecticide(s) to be used, mode and frequency of application and measures to contain sprays within the facility boundary.
- 10.8 Monitoring Locations
- 10.8.1 Prior to the commencement of waste activities, 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.
- 10.9 Annual Environmental Report
- 10.9.1 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).
- 10.9.2 The AER shall include as a minimum the information specified in *Schedule G: Content of Annual Environmental Report*, of this licence and shall be prepared in accordance with any relevant written guidance issued by the Agency.

REASON: *To provide for proper reporting and notification of the Agency.*

CONDITION 11 CHARGES AND FINANCIAL PROVISIONS

11.1 Agency Charges

- 11.1.1 The licensee shall pay to the Agency an annual contribution of €17,458 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 2005 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 2004, 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.
- 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 the licensee shall contribute such sums as determined by the Agency to defraying its costs in regard to items not covered by the said annual contribution.

11.2 Financial Provision for Closure, Restoration and Aftercare

- 11.2.1 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.
- 11.2.2 Within three months of agreement of the requirements of Condition 11.2.1, the licensee shall establish and maintain a fund or provide a written guarantee for the costs determined under Condition 11.2.1. The type of fund established and the means of its release/recovery shall be agreed by the Agency prior to its establishment.
- 11.2.3 The licensee shall within two weeks of purchase, renewal or revision of the financial provision required under Condition 11.2.2, forward to the Agency written proof of such indemnity.
- 11.2.4 The amount of financial provision, held under Condition 11.2.2 shall be reviewed and revised as necessary, but at least annually. Any proposal for such a revision shall be submitted to the Agency for its agreement.
- 11.2.5 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

Waste Type	Phase I ^{Note 3}	Phase II ^{Note 3}
Municipal Waste ^{Note 1}	65,000	100,000
Commercial & Industrial Waste	70,000	90,000
Construction & Demolition Waste	24,000	30,000
TOTAL ^{Note 2}	159,000	220,000

Note 1: Subject to Condition 3.15.1(i)

Note 2: The amount of each waste stream may be varied providing the total quantity is not exceeded and subject to agreement by the Agency.

Note 3: Phase I follows the provision of 2,960m² Materials Recovery Facility and Phase II follows the completion of 1,428m² extension to this building.

Waste Type	Phase I ^{Note 1}	Phase II ^{Note 2}	Phase III ^{Note 3}
Biowaste	12,500	25,000	50,000

Note 1: Phase I is defined as the first year of operation following the provision of the 4,405m² biowaste treatment building.

Note 2: Phase II is defined as the subsequent years of operation of 4,405m² biowaste treatment building.

Note 3: Phase III follows the completion of 1,841m² extension to biowaste treatment building. Subject to Condition 10.3

SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Installation of silt traps and oil interceptors and site drainage system.
Installation of dust/odour control/abatement system.
Installation of waste buildings and waste handling, processing, recycling/recovery infrastructure and installation of increased waste processing capacity.
Any other works notified in writing by the Agency.

SCHEDULE C : Emission Limits

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

Day dB(A) L_{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.1.1*).

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 for Wastewater Emissions to Sewer

Emission Point Reference No.: SE-1

Maximum volume to be emitted in any one day: 10 m³

Parameter	Emission Limit Value		
	Grab Sample (mg/l)	Daily Mean Concentration (mg/l)	Daily Mean Loading (kg/day)
BOD	6,000	5,000	50
COD	12,000	10,000	100
Ammoniacal Nitrogen	100	70	0.7
Suspended solids	2,500	2,000	20
Sulphate as (SO ₄)	1,000	1,000	10
PH	6-10	6-10	-
Temperature	42°C	42°C	-
Detergents	100	100	1.0
Fats, Oils & Greases	100	100	1.0
Phosphates (as P)	100	100	1.0

C.4 Emission Limit Values from Biowaste Treatment Building

Emission Limit Values from Biowaste Treatment Building

Emission point reference No. BW-1 & BW-2 (emission point(s) from biowaste treatment building)

Parameter	Emission Limit Value
Total Particulates	50 mg/m ³
Ammonia	50 ppm (v/v)
Amines	5 ppm (v/v)
Hydrogen sulphide	5 ppm (v/v)
Mercaptans	5 ppm (v/v)

SCHEDULE D : Monitoring

Monitoring to be carried out as specified below.

D.1 Monitoring Locations

Monitoring locations shall be those as set out in Table D.1.1 and Drawing J10 of the application.

Table D.1.1 Noise, surface water and wastewater Monitoring Locations

NOISE	SURFACE WATER	WASTEWATER	Dust Deposition, PM10 and Micro Organisms ^{Note 1}
STATIONS	STATIONS	STATIONS	STATIONS
N1 N2 N3 N4 ^{Note 2} N5 ^{Note 2}	SW-1 SW-2	SE-1	DS01 DS02 DS03 DS04

Note 1: Bioaerosol monitoring to be carried out at one upwind and two downwind locations chosen from DS01, DS02, DS03 and DS04

Note 2: Two nearest noise sensitive receptors to be agreed in advance by the Agency.

D.2 Noise

Table D.2.1 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."

D.3 Surface Water Emissions

Table D.3.1 Surface water Monitoring Frequency and Techniques

Parameter	Monitoring Frequency	Analysis Method/Technique
pH	Quarterly	Electrometry
Temperature	Quarterly	Temperature Probe
Biological Oxygen Demand	Quarterly	Standard Methods ^{Note 1}
Chemical Oxygen Demand	Quarterly	Standard Methods ^{Note 1}
Suspended Solids	Quarterly	Standard Methods ^{Note 1}
Electrical Conductivity	Quarterly	Electrometry
Ammoniacal nitrogen	Quarterly	Standard Methods ^{Note 1}
Mineral Oils	Quarterly	Standard Methods ^{Note 1}
Fats, Oils, Grease	Quarterly	Standard Methods ^{Note 1}

Note 1: "Standards Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed., American Public Health Association, 1015 Fifteenth Street, Washington DC 20005, USA.

D.4 Wastewater Emissions

Table D.4.1 Wastewater Monitoring Frequency and Techniques

Parameter	Monitoring Frequency	Analysis Method/Technique
PH	Bi-monthly	Electrometry
Biological Oxygen Demand	Bi-monthly	Standard Methods ^{Note 1}
Chemical Oxygen Demand	Bi-monthly	Standard Methods ^{Note 1}
Suspended Solids	Bi-monthly	Standard Methods ^{Note 1}
Fats, Oils, Grease	Bi-monthly	Standard Methods ^{Note 1}
Temperature	Bi-monthly	Temperature probe
Sulphates (as SO ₄)	Bi-monthly	Standard Methods ^{Note 1}
Ammoniacal nitrogen	Bi-monthly	Standard Methods ^{Note 1}
Fats, Oils and Greases	Bi-monthly	Standard Methods ^{Note 1}
Detergents	Bi-monthly	Standard Methods ^{Note 1}
Phosphates as P	Bi-monthly	Standard Methods ^{Note 1}

Note 1: "Standards Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed., American Public Health Association, 1015 Fifteenth Street, Washington DC 20005, USA.

D.5 Emissions from Biowaste Treatment Building Unit & Air Quality Monitoring

Table D.5.1 Dust, Odour and Micro-organisms Monitoring Frequency and Technique

Parameter ^{Note 1}	Monitoring Frequency	Analysis Method/Technique
Dust (mg/m ² /day)	Three times a year ^{Note 2}	Standard Method ^{Note 3}
Odour	Bi-annually	See Note 4
Airborne Microbes	Annually	Grab sample ^{Note 5}

Note 1: Meteorological monitoring to be carried out concurrently with all above monitoring.

Note 2: Twice during the period May to September, or as otherwise specified in writing by the Agency.

Note 3: Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute).

Note 4: Odour measurements shall be by olfactometric measurement and analysis for mercaptans, hydrogen sulphide, ammonia, amines.

Note 5: Enumeration of colonies to be carried out as described in 'Standardised Protocol for the Sampling and Enumeration of Airborn Micro-organisms at composting Facilities' the Composting Association 1999.

Table D.5.2 Emissions to Atmosphere: Abatement/Treatment Control at Biodegradable Waste Treatment Building

Emission Points Reference No.: BW-1 & BW-2 (emission points from the biowaste treatment building stacks located 16m above ground level).

Description of Treatment: Scrubber / Humidifier / Biofilter(s)

Unless agreed otherwise by the Agency, the Loading Rate shall not exceed 100 m³/hr/m³ of biofilter media and Monitoring and Backup Equipment at the biowaste treatment building shall be as set out below:

Control Parameter	Monitoring Required ^{Note 4}	Monitoring Equipment	Backup Equipment
Scrubber			
PH	Daily	pH probe	Spare probe
Biofilter			
Inlet Gas			
Differential Pressure Drop across the filter	Daily	Manometer	Spare manometer
Temperature	Daily	Temperature sensor	-
Inlet and Outlet Gas			
Ammonia	Monthly	Colorimetric Indicator Tubes ^{Note 1}	Spare tubes
Hydrogen sulphide	Monthly	Colorimetric Indicator Tubes ^{Note 1}	Spare tubes
Mercaptans	Monthly	Colorimetric Indicator Tubes ^{Note 1}	Spare tubes
Bed Media			
Condition ^{Note 2}	Daily	Visual Inspection	-
Moisture content	Quarterly	Standard laboratory method ^{Note 1}	-
PH	Quarterly	pH probe	-
Total viable counts	Bi-Annually	Standard laboratory method ^{Note 1}	-
General			
Sprinkler System	Check operation Daily	Visual Inspection	-
Fan	Check operation Daily	Visual Inspection	-
Negative Pressure ^{Note 3}	Monthly	Air current tubes ^{Note 1}	Spare tubes

All measurements shall be made at peak bed loading.

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

Note 2: The biofilter shall be examined to ensure that no channelling is evident. Turning, restructuring and the addition of supplementary bed materials, or total bed replacement shall be carried out, as required, subject to bed performance.

Note 3: To be carried out on all buildings under negative pressure. A log shall be kept on - site with records of the date and time of analysis, building tested and weather on date of testing.

Note 4: Records shall be kept at the facility of all monitoring and visual checks.

SCHEDULE E : Recording and Reporting to the Agency

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 calendar year thereafter.
Record of incidents	As they occur	Within five days of the incident.
Bund, tank and container integrity assessment	Prior to use and every three years thereafter	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 Wastewater	Bi-annually	Ten days after end of the period being reported on.
Dust Monitoring	Three times a year	Ten days after the period being reported on
Noise Monitoring	Bi- annually	Ten days after end of 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 F : Standards for Compost Quality

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 25% of samples fail the criteria below. No sample shall exceed 1.2 times the quality limit values set.

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 ≤1,000mg O₂/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.
5. Or other maturity tests as may be agreed with the Agency.

2. Trace Elements^{Note 1&2}

Parameter (mg/kg, dry mass)	Compost Quality Standards ^{Note 3}		Stabilised Biowaste
	Class I	Class II	
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
Polychlorinated Biphenyls (PCBs)	-	-	0.4
Polynuclear Aromatic Hydrocarbons	-	-	3
Impurities >2mm ^{Note 4}	<0.5%	<0.5%	<3%
Gravel & Stones ^{Note 4}	<5%	<5%	-

Note 1: These limits apply to the compost just after the composting phase and prior to mixing with any other materials.

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.

Note 3: Normalised to 30% organic matter content.

Note 4: Compost must not contain any sharp foreign matter measuring over a 2mm 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:

<i>Salmonella sp.</i>	Absent in 50g	n=5
<i>Faecal Coliforms</i>	≤ 1000 Most probable number (MPN) in 1g	n=5

Where n=number of samples to be tested.

4. Monitoring

The licensee shall submit to the Agency for its agreement, prior to commencement of compost operations, details of methods of analyses and methods of sampling.

The analyses shall be carried out on a monthly basis

SCHEDULE G : Content of the Annual Environmental Report

Annual Environmental Report Content

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).

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.

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.

Volume of rainwater reused at the facility.

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

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.

Sealed by the seal of the Agency on this 15th day of April 2004

PRESENT when the seal of the Agency
was affixed hereto:

Padraic Larkin, Director/Authorised Person