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Ireland

**INDUSTRIAL EMISSIONS LICENCE
Recommended Determination**

Licence Register Number:	W0287-01
Company Register Number:	403413
Applicant:	Ormonde Organics Limited
Location of Installation:	Killowen Portlaw County Waterford

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 a composting and anaerobic digestion installation at Killowen, Portlaw, County Waterford. The installation comprises infrastructure for the acceptance, storage and treatment of biodegradable waste and for the production of biogas which will be used in a combined heat and power plant to produce heat and electricity. This licence authorises the acceptance of 40,000 tonnes of non-hazardous biodegradable waste per annum.

For the purposes of the EU Industrial Emissions Directive (2010/75/EU), this installation falls within the scope of the following Annex I category:

Category 5.3 (b): Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, and excluding activities covered by Directive 91/271/EEC:

- (i) biological treatment;
- (ii) pre-treatment of waste for incineration or co-incineration;
- (iii) treatment of slags and ashes;
- (iv) treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components.

When the only waste treatment activity carried out is anaerobic digestion, the capacity threshold for this activity shall be 100 tonnes per day.

The licence sets out in detail the conditions under which Ormonde Organics Limited will operate and manage this installation.

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Glossary of Terms

All terms in this licence should be interpreted in accordance with the definitions in the Environmental Protection Agency Act 1992 as amended / Waste Management Act 1996 as amended, unless otherwise defined in the section.

Adequate lighting	20 lux measured at ground level.
AER	Annual Environmental Report.
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Agreement	Agreement in writing.
Annually	All or part of a period of twelve consecutive months.
Application	The application by the licensee for this licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
Basic characterisation	A thorough determination, according to standardised analysis and behaviour testing methods, of the properties of the waste.
BAT	Best Available Techniques.
BAT conclusions	A document containing the parts of a BAT reference document laying down the conclusions on best available techniques, their description, information to assess their applicability, the emission levels associated with the best available techniques, associated monitoring, associated consumption levels and, where appropriate, relevant site remediation measures.
BAT reference document	A document drawn up by the Commission of the European Union in accordance with Article 13 of the Industrial Emissions Directive, resulting from the exchange of information in accordance with that Article of that Directive and describing, in particular, applied techniques, present emissions and consumption levels, techniques considered for the determination of best available techniques as well as BAT conclusions and any emerging techniques.
Biannually	At approximately six – monthly intervals.
Biennially	Once every two years.
BOD	5 day Biochemical Oxygen Demand (without nitrification suppression).

CEN	Comité Européen De Normalisation – European Committee for Standardisation.
COD	Chemical Oxygen Demand.
Commercial Waste	As defined in Section 5(1) of the Waste Management Act 1996, as amended.
Compliance Testing	This constitutes periodical testing to determine whether a waste complies with waste acceptance criteria. The tests focus on key variables and behaviour identified by basic characterisation.
Containment boom	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
CRO Number	Company Register Number.
Daily	During all days of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement on any one day.
Day	Any 24 hour period.
Daytime	0700 hrs to 1900 hrs.
dB(A)	Decibels (A weighted).
Digestate	The treated output from anaerobic digestion of biodegradable waste including, whether combined or separated, the solid/fibrous and liquid/liquor fractions.
Digestate liquor	Any liquid resulting from the anaerobic digestion process, whether drawn directly from the digestion chamber or resulting from post-digestion separation.
DO	Dissolved oxygen.
Documentation	Any report, record, results, 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 limits	Those limits, including concentration limits and deposition rates, established in <i>Schedule B: Emission Limits</i> , of this licence.
EMP	Environmental Management Programme.
Environmental damage	As defined in Directive 2004/35/EC.

EPA	Environmental Protection Agency.
Evening Time	1900hrs to 2300hrs.
Facility	Any site or premises used for the purpose of the recovery or disposal of waste.
Fortnightly	A minimum of 24 times per year, at approximately two week intervals.
Gas Oil	Gas Oil as defined in Council Directive 1999/32/EC and meeting the requirements of S.I. No. 119 of 2008.
GC/MS	Gas chromatography/mass spectroscopy.
Green Waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
Groundwater	Has the meaning assigned to it by Regulation 3 of the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010).
Ha	Hectare.
Hazardous Substances	Substances or mixtures as defined in Article 3 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures.
Heavy metals	This term is to be interpreted as set out in “Parameters of Water Quality, Interpretation and Standards” published by the Agency in 2001. ISBN 1-84095-015-3.
Hours of operation	The hours during which the installation is authorised to be operational.
Hours of waste acceptance	The hours during which the installation is authorised to accept waste.
ICP	Inductively coupled plasma spectroscopy.
IE	Industrial Emissions.

Incident	The following shall constitute as incident for the purposes of this licence: (i) an emergency; (ii) any emission which does not comply with the requirements of this licence; (iii) any exceedance of the daily duty capacity of the waste handling equipment; (iv) any trigger level specified in this licence which is attained or exceeded; and, (v) any indication that environmental pollution has, or may have, taken place.
Industrial Emissions Directive	Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast).
Industrial waste	As defined in Section 5(1) of the Waste Management Act 1996 as amended.
Installation	A stationary technical unit or plant where the activity concerned referred to in the First Schedule of EPA Act 1992 as amended is or will be carried on, and shall be deemed to include any directly associated activity, which has a technical connection with the activity and is carried out on the site of the activity.
Irish Water	Irish Water, Colvill House, 24/26 Talbot Street, Dublin 1.
K	Kelvin.
kPa	Kilopascals.
$L_{Aeq,T}$	This is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T).
$L_{Ar,T}$	The Rated Noise Level, equal to the L_{Aeq} during a specified time interval (T), plus specified adjustments for tonal character and/or impulsiveness of the sound.
Licensee	Ormonde Organics Limited, Killowen, Portlaw, County Waterford, CRO Number 403413.
Liquid waste	Any waste in liquid form and containing less than 2% dry matter.
List I	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
List II	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.

List of Waste (LoW)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC, as amended by Commission Decision 2014/955/EU and any subsequent amendment published in the Official Journal of the European Community.
Local Authority	Waterford City and County Council.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.
Mass flow limit	An emission limit value expressed as the maximum mass of a substance that can be emitted per unit time.
Mass flow threshold	A mass flow rate above which a concentration limit applies.
Monthly	A minimum of 12 times per year, at intervals of approximately one month.
Night-time	2300 hrs to 0700 hrs.
Noise-sensitive location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other installation or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
NMP	Nutrient Management Plan.
Oil separator	Device installed according to the International Standard I.S. EN 858-2:2003 (Separator system for light liquids, (e.g. oil and petrol) – Part 2: Selection of normal size, installation, operation and maintenance).
On-site verification of waste	Rapid check methods to confirm that a waste is the same as that which has been subjected to compliance testing and that which is described in any accompanying documents. It may merely consist of a visual inspection of a load of waste before and after unloading at the installation.
PRTR	Pollutant Release and Transfer Register.
Quarterly	All or part of a period of three consecutive months beginning on the first day of January, April, July or October.
Relevant Hazardous Substances	Those substances or mixtures defined within Article 3 of Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) which, as a result of their hazardousness, mobility, persistence and biodegradability (as well as other characteristics), are capable of contaminating soil or groundwater and are used, produced and/or released by the installation.
Residual Waste	The fraction of collected waste remaining after a treatment or diversion step, which generally requires further treatment or disposal, including mixed municipal waste.
SAC	Special Area of Conservation designated under the <i>Habitats Directive</i> , Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

Sample(s)	Unless the context of this licence indicates to the contrary, the term samples shall include measurements taken by electronic instruments.
Sanitary effluent	Wastewater from installation toilet, washroom and canteen facilities.
Soil	The top layer of the Earth's crust situated between the bedrock and the surface. The soil is composed of mineral particles, organic matter, water, air and living organisms.
SOP	Standard operating procedure.
Source segregated waste	Waste which is separated at source; meaning that the waste is sorted at the point of generation into a recyclable fraction(s) for separate collection (e.g., paper, metal, glass, plastic, bulk dry recyclables, biodegradables, etc.) and a residual fraction. The expression 'separate at source' shall be construed accordingly.
Specified emissions	Those emissions listed in <i>Schedule B: Emission Limits</i> , of this licence.
Specified Engineering Works	Engineering works listed in <i>Schedule D: Specified Engineering Works</i> of this licence.
Standard method	A National, European or internationally recognised procedure (e.g. I.S. EN, ISO, CEN, BS or equivalent); or an in-house documented procedure based on the above references; a procedure as detailed in the current edition of "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by A.P.H.A., A.W.W.A. & W.E.F.), American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or an alternative method as may be agreed by the Agency.
Storage	Includes holding of waste.
Storm water	Rain water run-off from roof and non-process areas.
The Agency	Environmental Protection Agency.
TOC	Total organic carbon.
Trade effluent	Trade effluent has the meaning given in the Water Services Act, 2007.
Trigger level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Waste	Any substance or object which the holder discards or intends or is required to discard.
Water Services Authority	Waterford City and County Council.
Weekly	During all weeks of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement in any one week.

WWTP Waste water treatment plant.

Decision & Reasons for the Decision

The Environmental Protection 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 will not contravene any of the requirements of Section 83(5) of the Environmental Protection Agency Act 1992 as amended.

The Agency also considers that the activities will not adversely affect the integrity of any European Site, and has decided to impose conditions for the purposes of ensuring they do not do so. It has determined that the activities, if managed, operated and controlled in accordance with the licence, will not have any adverse effect on the integrity of any of those sites.

The Agency accordingly proposes to grant a licence to Ormonde Organics Limited to carry on the activities listed in *Part I, Schedule of Activities Licensed*, subject to the conditions set out in *Part III, Conditions*.

In reaching this decision the Agency has considered the documentation relating to the application, Register Number: W0287-01, and the supporting documentation received from the applicant; the submissions received; and the Inspector's Report dated **5th May 2016** and has carried out an Environmental Impact Assessment (EIA) and an Appropriate Assessment of the likely significant effects of the licensed activities on European Sites.

It is considered that the Inspector's Report contains a fair and reasonable examination, evaluation and analysis of the likely significant effects of the licensed activities on the environment, and adequately and accurately identifies, describes and assesses those effects. The assessment as reported in those documents is adopted as the assessment of the Agency. Having regard to this assessment, it is considered that the activities, if managed, operated and controlled in accordance with the licence will not result in the contravention of any relevant environmental quality standards or cause environmental pollution.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Site at Lower River Suir SAC (Site code: 002137).

The activities are not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it cannot be excluded, on the basis of objective information, that the activities, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activities was required, and for this reason determined to require the applicant to submit a Natura Impact Statement.

This determination was based on the following reasons:

Surface water runoff from the site discharges into the Lower River Suir SAC, which is located approximately 370m from the site. There is a risk that the surface water run off may be polluted by waste with a high biological oxygen demand (BOD), which may have a significant effect on the conservation objectives of this European Site.

The Agency has completed the Appropriate Assessment of potential impacts on this site and has made certain, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the activities, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular Lower River Suir SAC (Site code: 002137), having regard to its conservation objectives and will not affect the preservation of the site at favourable conservation status if carried out in accordance with this licence and the conditions attached hereto for the following reasons:

- The activity will not result in damage to, or loss of, habitat in a European Site;
- There will be no process discharge from this installation to the European Site;
- All contaminated runoff arising onsite will be contained and recirculated into the processes or sent for treatment off-site.
- Condition 3.26.2 requires that the installation yard is concreted.
- Condition 8.4.1 requires that waste storage and processing takes place inside buildings or enclosed vessels.
- Condition 3.20 requires that the storm water passes a silt trap and interceptor prior to discharge.
- Condition 6.15.2 requires trigger levels for the storm water discharge.
- An emergency response procedure is required under Condition 9.2, while Condition 9.4.2 provides for all significant spillages to be treated as an emergency.
- Air dispersion modelling has confirmed that emissions to air from the installation will not lead to a breach of an air quality standard.
- The RD proposes emission limit values on the discharges to air and includes a range of conditions that will limit any impact on air quality.

- Condition 8.3 requires the establishment of waste characterisation and acceptance procedures which will ensure that all wastes arriving at the facility are handled in such a manner so as to prevent any impact on the European Sites.
- Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of the European Site Lower River Suir SAC (Site code: 002137).

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Environmental Protection Agency Act 1992 as amended, the Agency proposes to grant this Industrial Emissions licence to:

Ormonde Organics Limited, Killowen, Portlaw, County Waterford, CRO Number 403413

under Section 83(1) of the said Act to carry on the following activity:

- Class 11.4
 - (b) Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, (other than activities to which the Urban Waste Water Treatment Regulations 2001 (S.I. No. 254 of 2001) apply):
 - (i) biological treatment.

at Killowen, Portlaw, County Waterford, subject to the following 12 Conditions, with the reasons therefor and associated schedules attached thereto.

Part II Schedule of Activities Refused

None of the proposed activities as set out in the licence application have been refused.

Part III Conditions

Condition 1. Scope

- 1.1 Industrial Emissions Directive activities at this installation shall be restricted to those listed and described in *Part I Schedule of Activities Licensed*, and shall be as set out in the licence application or as modified under Condition 1.4 of this licence and subject to the conditions of this licence.
- 1.2 Activities at this installation shall be limited as set out in *Schedule A: Limitations*, of this licence.
- 1.3 For the purposes of this licence, the installation is the area of land outlined in colour red on **Drawing No. 1 titled ‘Proposed Site Layout’ and dated 06.02.14** of the application. Any reference in this licence to “installation” shall mean the area thus outlined in colour red. The licensed activities shall be carried on only within the area outlined.
- 1.4 No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in
- (i) a material change or increase in:
- the nature or quantity of any emission;
 - the abatement/treatment or recovery systems;
 - the range of processes to be carried out;
 - the fuels, raw materials, intermediates, products or wastes generated, or
- (ii) any changes in:
- site management, infrastructure or control with adverse environmental significance;
- shall be carried out or commenced without prior notice to, and without the agreement of, the Agency.
- 1.5 Waste Acceptance Hours and Hours of Operation
- 1.5.1** Unless otherwise agreed by the Agency, waste shall be accepted at or **waste, compost or digestate** dispatched from the facility only between the hours of 0700 and 1900 Monday to Saturday inclusive.
- 1.5.2** **Except for the biological treatment processes which may operate continuously, or as otherwise agreed by the Agency, the installation shall be operated only during the hours of 0700 and 1900 Monday to Saturday inclusive with the exception of construction activities which shall cease by 1700 on Saturdays.**
- 1.6 The installation shall be controlled, operated and maintained, and emissions shall take place as set out in the licence. All programmes required to be carried out under the terms of this licence become part of this licence.
- 1.7 This licence is for the purpose of IE licensing under the EPA Act 1992 as amended only and nothing in this licence shall be construed as negating the licensee’s statutory obligations or requirements under any other enactments or regulations.
- 1.8 Prior to commencing waste activities involving animal by-products the licensee shall maintain evidence for inspection by the Agency that it has obtained the written consent of the Department of Agriculture, Food and the Marine to treat animal by-products at the installation.

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

Condition 2. Management of the Installation

- 2.1 Installation Management
- 2.1.1 The licensee shall employ a suitably qualified and experienced installation manager who shall be designated as the person in charge. The installation manager or a nominated, suitably qualified and experienced deputy shall be present on the installation at all times during its operation or as otherwise required by the Agency.
- 2.1.2 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 Environmental Management System (EMS)
- 2.2.1 The licensee shall establish, maintain and implement an Environmental Management System (EMS), which shall incorporate energy efficiency management, within six months of the date of grant of this licence. The EMS shall be reviewed by senior management for suitability, adequacy and effectiveness and updated on an annual basis.
- 2.2.2 The EMS shall include, as a minimum, the following elements:
- 2.2.2.1 Commitment of the management, including senior management.
- 2.2.2.2 An environmental policy defined for the installation that includes the continuous improvement for the installation by the management.
- 2.2.2.3 Management and Reporting Structure and responsibility.
- 2.2.2.4 The necessary procedures, objectives and targets, in conjunction with financial planning and investment.
- 2.2.2.5 Procedures that ensure employee involvement in ensuring compliance with environmental legislation.
- 2.2.2.6 A procedure for checking performance by sectoral benchmarking on a regular basis including energy efficiency.
- 2.2.2.7 Schedule of Environmental Objectives and Targets.
- The licensee shall prepare, maintain and implement a Schedule of Environmental Objectives and Targets. The schedule shall, as a minimum, provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production and the prevention, reduction and minimisation of waste and shall include waste reduction targets. The schedule shall include time frames for the achievement of set targets and shall address a five-year period as a minimum. The schedule shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).
- 2.2.2.8 Environmental Management Programme (EMP)
- The licensee shall prepare, maintain and implement an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.7. The EMP shall include:
- designation of responsibility for targets;
 - the means by which they may be achieved;
 - the time within which they may be achieved.
- The EMP shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).
- A report on the programme, including the success in meeting agreed targets, shall be prepared and submitted to the Agency as part of the AER. Such

reports shall be retained on-site for a period of not less than seven years and shall be available for inspection by authorised persons of the Agency.

2.2.2.9 Documentation

- (i) The licensee shall establish, maintain and implement an environmental management documentation system.
- (ii) The licensee shall issue a copy of this licence to all relevant personnel whose duties relate to any condition of this licence.

2.2.2.10 Corrective and Preventative Action

- (i) The licensee shall establish maintain and implement procedures to ensure that corrective and preventative action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for persons initiating further investigation and corrective and preventative action in the event of a reported non-conformity with this licence shall be defined.
- (ii) Where a breach of one or more of the conditions of this licence occurs, the licensee shall without delay take measures to restore compliance with the conditions of this licence in the shortest possible time and initiate any feasible preventative actions to prevent recurrence of the breach.
- (iii) All corrective and preventative actions shall be documented

2.2.2.11 Internal Audits

The licensee shall establish, maintain and implement a programme for independent internal audits of the EMS. Such audits shall be carried out at least once every three years. The audit programme shall determine whether or not the EMS is being implemented and maintained properly, and in accordance with the requirements of the licence. Audit reports and records of the resultant corrective and preventative actions shall be maintained as part of the EMS in accordance with Condition 2.2.2.9.

2.2.2.12 Awareness, Training and Competence

The licensee shall establish, maintain and implement procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment to ensure awareness and competence in their work area. Appropriate records of training shall be maintained.

2.2.2.13 Communications Programme

The licensee shall establish, maintain and implement a Public Awareness and Communications Programme to ensure that members of the public can obtain information at the installation, at all reasonable times, concerning the environmental performance of the installation.

2.2.2.14 Maintenance Programme

The licensee shall establish, maintain and implement a programme for maintenance, including preventive maintenance, of all plant and equipment based on the instructions issued by the manufacturer/supplier or installer of the equipment. Appropriate record keeping and diagnostic testing shall support this maintenance programme. The licensee shall clearly allocate responsibility for the planning, management and execution of all aspects of this programme to appropriate personnel (see Condition 2.1 above). The maintenance programme shall use appropriate techniques and measures to ensure the optimisation of energy efficiency in plant and equipment.

2.2.2.15 Efficient Process Control

The licensee shall establish, maintain and implement a programme to ensure there is adequate control of processes under all modes of operation. The programme shall identify the key indicator parameters for process control performance, as well as identifying methods for measuring and controlling these parameters. Abnormal process operating conditions shall be documented, and analysed to identify any necessary corrective action.

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

Condition 3. Infrastructure and Operation

- 3.1 The licensee shall establish and maintain, for each component of the installation, all infrastructure referred to in this licence as required by the conditions of this licence. Infrastructure specified in the application that relates to the environmental performance of the installation and is not specified in the licence, shall be installed in accordance with the schedule submitted in the application.
- 3.2 The licensee shall have regard to the following when choosing and/or designing any new plant/infrastructure:
- 3.2.1 Energy efficiency, and
- 3.2.2 The environmental impact of eventual decommissioning.
- 3.3 Specified Engineering Works
- 3.3.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule D: Specified Engineering Works*, of this licence, to the Agency for its agreement at least two months in advance, of the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency
- 3.3.2 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.
- 3.3.3 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, as appropriate, include the following information:-
- (i) A description of the works;
- (ii) As-built drawings of the works; and
- (iii) Any other information requested in writing by the Agency.
- 3.4 Installation Notice Board
- 3.4.1 The licensee shall, within one month of the date of grant of this licence, provide an Installation Notice Board on the installation so that it is legible to persons outside the main entrance to the installation. The minimum dimensions of the board shall be 1200 mm by 750 mm. The notice board shall be maintained thereafter.
- 3.4.2 The board shall clearly show:
- (i) the name and telephone number of the installation;
- (ii) the normal hours of operation;
- (iii) the name of the licence holder;
- (iv) an emergency out of hours contact telephone number;
- (v) the licence reference number; and

(vi) where environmental information relating to the installation can be obtained.

3.4.3 A plan of the installation clearly identifying the location of each storage and treatment area shall be displayed as close as is possible to the entrance to the installation. The plan shall be displayed on a durable material such that is legible at all times. The plan shall be replaced as material changes to the installation are made.

3.5 Installation Security

3.5.1 Security and stock-proof fencing and gates shall be maintained at the installation. Subject to the implementation of the Decommissioning Management Plan (as required by Condition 10.2 of this licence) the requirement for such installation security may be removed

3.5.2 The licensee shall maintain a CCTV monitoring system which records all waste vehicle movement into and out of the installation. The CCTV system shall be operated at all times with digital date stamping. Copies of recordings shall be kept on site and made available to the Agency on request.

3.5.3 There shall be no unauthorised public access to the installation.

3.5.4 Gates shall be locked shut when the installation is unsupervised.

3.5.5 The licensee shall remedy any defect in the gates and/or fencing as follows:

- (i) A temporary repair shall be made by the end of the working day; and
- (ii) A repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

3.6 Installation Office

3.6.1 The licensee shall provide and maintain an office at the installation. 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 installation

3.7 Weighbridge and Wheel Cleaning

3.7.1 The licensee shall provide and maintain a weighbridge and wheel cleaner at the installation.

3.7.2 The wheel cleaner shall be used by all vehicles leaving the installation as required to ensure that no wastewater, waste or storm water is carried off-site. All water from the wheel cleaning area shall be directed to the on-site wastewater treatment plant.

3.7.3 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.

3.8 Waste Inspection and Quarantine Areas

3.8.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the installation.

3.8.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other.

3.9 Waste treatment infrastructure

3.9.1 Waste treatment infrastructure shall at a minimum comprise the following:

- (i) Waste acceptance, inspection, storage and treatment/processing areas;
- (ii) Separate storage areas for all waste treatment outputs including any screened fractions;
- (iii) Leachate, digestate liquor and waste water management infrastructure;

- (iv) Biogas handling, storage, treatment and combustion infrastructure; and
 - (v) Air handling and odorous air treatment infrastructure.
- 3.9.2 Items of plant deemed critical to the efficient and adequate processing of waste at the installation (including inter alia waste loading vehicles and ejector trailers) shall be provided on the following basis:-
- (i) 100% duty capacity;
 - (ii) 20% standby capacity available on a routine basis; and
 - (iii) Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.
- 3.9.3 The odour control system shall be provided on the following basis:-
- (i) 100% duty capacity; and
 - (ii) 50% standby capacity.
- 3.9.4 The licensee shall prepare and maintain on site a record detailing the duty and standby capacity, in tonnes per day, of all waste handling and processing equipment to be used at the installation. These capacities shall be based on the licensed waste intake, as per *Schedule A: Limitations*, of this licence.
- 3.9.5 The quantity of waste to be accepted at the installation on a daily basis shall not exceed the duty capacity of the equipment at the installation. Any exceedance of this intake shall be treated as an incident.
- 3.10 Storm Water Management
- Storm water management infrastructure shall be provided and maintained at the installation during operation, closure and decommissioning of the installation. As a minimum, the infrastructure shall be capable of the following:
- (i) the prevention of discharge of contaminated water, process effluent and/or leachate into surface water drains and courses; and
 - (ii) the collection/diversion of run-off arising from paved areas.
- 3.12 The licensee shall provide and use adequate lighting during the operation of the installation in hours of darkness.
- 3.13 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned
- 3.14 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.
- 3.15 Tank, Container and Drum Storage Areas
- 3.15.1 All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004).
- 3.15.2 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:
- (i) 110% of the capacity of the largest tank or drum within the bunded area; or
 - (ii) 25% of the total volume of substance that could be stored within the bunded area.
- 3.15.3 All drainage from bunded areas shall be treated as contaminated unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal, unless it can be deemed uncontaminated and does not exceed the trigger levels set for storm water emissions under Condition 6.15.2.

- 3.15.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.15.5 All tanks, containers and drums shall be labelled with a unique identifier and to clearly indicate their contents and capacity.
- 3.15.6 Liquid residues from the biological treatment processes shall be stored in sealed tanks or vessels that are vented to the odour control system, or by other means agreeable to the Agency, in order to avoid the emission of odorous head gases.
- 3.16 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.
- 3.17 In the case of composite sampling of aqueous emissions from the operation of the installation, a separate composite sample or homogeneous sub-sample (of sufficient volume as advised) shall be refrigerated immediately after collection and retained as required for EPA use.
- 3.18 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned.
- 3.19 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 installation. Once used, the absorbent material shall be disposed of at an appropriate facility.
- 3.20 Silt Traps and Oil Separators
The licensee shall maintain silt traps and oil separators at the installation:
 - (i) Silt traps to ensure that all storm water discharges, other than from roofs, from the installation pass through a silt trap in advance of discharge;
 - (ii) An oil separator on the storm water discharge from yard areas. The separator shall be a Class I full retention separator.The silt traps and separator shall be in accordance with I.S. EN-858-2: 2003 (separator systems for light liquids).
- 3.21 Fire-water Retention
 - 3.21.1 The licensee shall carry out a risk assessment to determine if the activity should have a fire-water retention facility. The licensee shall submit the assessment and a report to the Agency on the findings and recommendations of the assessment within six months of the date of grant of this licence.
 - 3.21.2 In the event that a significant risk exists for the release of contaminated fire-water, the licensee shall, based on the findings of the risk assessment, prepare and implement, with the agreement of the Agency, a suitable risk management programme. The risk management programme shall be fully implemented within three months of date of notification by the Agency.
 - 3.21.3 In the event of a fire or a spillage to storm water, the site storm water shall be diverted for collection. The licensee shall examine, as part of the response programme in Condition 3.21.2 above, the provision of automatic diversion of storm water for collection. The licenses shall have regard to any guidelines issued by the Agency with regard to firewater retention.
 - 3.21.4 The licensee shall have regard to the Environmental Protection Agency Draft Guidance Note to Industry on the Requirements for Fire-Water Retention Facilities when implementing Condition 3.21.
- 3.22 All pump sumps, storage tanks, lagoons or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach local or remote containment or separators, shall be fitted with high liquid level alarms (or oil detectors as appropriate) within six months from the date of grant of this licence.
- 3.23 Pipework

- 3.23.1 The provision of a catchment system to collect any leaks from flanges and valves of all over-ground pipes used to transport material other than water shall be examined. This shall be incorporated into a Schedule of Environmental Objectives and Targets set out in Condition 2 of this licence for the reduction in fugitive emissions.
- 3.23.2 The integrity of underground liquid feedstock pipes shall be monitored by an automatic leak detection system.
- 3.23.3 The licensee shall, within **three** months of the date of grant of this licence, label all pipework so as to differentiate between fuels, process flows and waste water. The labelling shall include the direction of flow.
- 3.23.4 All connections between vessels shall be capable of being closed by valves.
- 3.24 The provision of a catchment system to collect any leaks from flanges and valves of all over-ground pipes used to transport material other than water shall be examined. This shall be incorporated into a Schedule of Environmental Objectives and Targets set out in Condition 2. of this licence for the reduction in fugitive emissions.
- 3.25 Groundwater wells
- 3.25.1 All wellheads and groundwater monitoring boreholes shall be adequately protected to prevent contamination or physical damage.
- 3.25.2 Groundwater wells shall be labelled in situ with their respective identification number and casing elevation in meters above ordinance datum Malin Head (mAOD Malin Head).
- 3.25.3 Any new groundwater monitoring wells shall be constructed having regard to the guidance given in the Guidance Note Landfill Manual – Guidance Note on Landfill Monitoring, which was published by the Agency.
- 3.26 Installation Roads and Site Surfaces
- 3.26.1 Effective site roads shall be provided and maintained to ensure the safe and nuisance-free movement of vehicles within the installation.
- 3.26.2 The licensee shall maintain an impermeable concrete surface in all areas of the installation, including the floor of the Waste Buildings. The surfaces shall be concreted and constructed to British Standard 8110 or an alternative as agreed by the Agency. The licensee shall remedy any defect in concrete surfaces within five working days.
- 3.27 The licensee shall, within three months of the date of grant of this licence, install in a prominent location on the site a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.
- 3.28 The licensee shall provide and maintain a Wastewater Treatment plant at the installation for the treatment of sanitary effluent arising on-site. Any waste water treatment system and percolation area shall satisfy the criteria, **as might be relevant**, set out in:
- *Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses (p.e ≤ 10), or,*
 - *Wastewater Treatment Manuals: Treatment Systems for Small Communities, Business, Leisure Centres and Hotels,*
- published by the Environmental Protection Agency.
- 3.29 Natural gas, or biodiesel (meeting CEN standard EN14214) shall be used in the boilers on site. In the event of an interruption to the supply of natural gas or biodiesel, an alternative fuel such as gas oil may be used with the prior written agreement of the Agency.

Reason: *To provide for appropriate operation of the installation to ensure protection of the environment.*

Condition 4. Interpretation

- 4.1 Emission limit values for emissions to atmosphere in this licence shall be interpreted in the following way:
- 4.1.1 Continuous Monitoring
- (i) No 24 hour mean value shall exceed the emission limit value.
 - (ii) 97% of all 30 minute mean values taken continuously over an annual period shall not exceed 1.2 times the emission limit value.
 - (iii) No 30 minute mean value shall exceed twice the emission limit value.
- 4.1.2 Non-Continuous Monitoring
- (iv) 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.
 - (v) For flow, no hourly or daily mean value, calculated on the basis of appropriate spot readings, shall exceed the relevant limit value.
 - (vi) For all other parameters, no 30 minute mean value shall exceed the emission limit value.
- 4.2 The concentration and volume flow limits for emissions to atmosphere specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of:
- 4.2.1 From non-combustion sources:
Temperature 273K, Pressure 101.3 kPa (no correction for oxygen or water content).
- 4.2.2 From combustion sources:
Temperature 273K, Pressure 101.3 kPa, dry gas; 3% oxygen for liquid and gas fuels, 6% oxygen for solid fuels.
- 4.3 Emission limit values for emissions to waters in this licence shall be interpreted in the following way:
- 4.3.1 Continuous Monitoring
- (i) No flow value shall exceed the specific limit.
 - (ii) No pH value shall deviate from the specified range.
 - (iii) No temperature value shall exceed the limit value.
- 4.3.2 Composite Sampling
- (i) No pH value shall deviate from the specified range.
 - (ii) For parameters other than pH and flow, eight out of ten consecutive composite results, based on flow proportional composite sampling, shall not exceed the emission limit value. No individual results similarly calculated shall exceed 1.2 times the emission limit value.
- 4.3.3 Discrete Sampling
- For parameters other than pH and temperature, no grab sample value shall exceed 1.2 times the emission limit value.
- 4.4 Compost and Digestate Quality Test Results
- The digestate quality standard set out in *Schedule E: Standards for Compost and Digestate Quality* of this licence shall apply to compost and digestate after the composting or anaerobic digestion phase and prior to mixing with other materials.
- 4.5 Where the ability to measure a parameter is affected by mixing before emission, then, with agreement from the Agency, the parameter may be assessed before mixing takes place.

4.6 Noise

Noise from the installation shall not give rise to sound pressure levels ($L_{Aeq, T}$) measured at the NSLs of the installation which exceed the limit value(s).

4.7 Dust and Particulate Matter

Dust and particulate matters from the activity shall not give rise to deposition levels which exceed the limit value.

Reason: *To clarify the interpretation of limit values fixed under the licence.*

Condition 5. Emissions

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

5.2 No emissions, including odours, from the activities carried on at the site shall result in an impairment of, or an interference with amenities or the environment beyond the installation boundary or any other legitimate uses of the environment beyond the installation boundary.

5.3 There shall be no direct emissions to groundwater.

5.4 No trade effluent, leachate and/or contaminated storm water shall be discharged to surface water courses.

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

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

5.7 The licensee shall ensure that all or any of the following:

- Vermin
- Birds
- Flies
- Mud
- Dust
- Litter

associated with the activity do not result in an impairment of, or an interference with, amenities or the environment at the installation or beyond the installation boundary or any other legitimate uses of the environment beyond the installation boundary. Any method used by the licensee to control or prevent any such impairment/interference shall not cause environmental pollution.

Reason: *To provide for the protection of the environment by way of control and limitation of emissions.*

Condition 6. Control and Monitoring

6.1 Test Programme

6.1.1 The licensee shall prepare to the satisfaction of the Agency, a test programme for abatement equipment installed to abate emissions to atmosphere. This programme shall be submitted to the Agency in advance of implementation.

- 6.1.2 The programme, following agreement with the Agency, shall be completed within three months of the commencement of operation of the abatement equipment.
- 6.1.3 The criteria for the operation of the abatement equipment as determined by the test programme, shall be incorporated into the standard operating procedures.
- 6.1.4 The test programme shall as a minimum:
- (i) establish all criteria for operation, control and management of the abatement equipment to ensure compliance with the emission limit values specified in this licence; and
 - (ii) assess the performance of any monitors on the abatement system and establish a maintenance and calibration programme for each monitor.
- 6.1.5 A report on the test programme shall be submitted to the Agency within one month of completion.
- 6.2 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring*, of this licence.
- 6.2.1 Analyses shall be undertaken by competent staff in accordance with documented operating procedures.
- 6.2.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.
- 6.2.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.
- 6.2.4 Where any analysis is sub-contracted it shall be to a competent laboratory.
- 6.3 The licensee shall ensure that:
- (i) sampling and analysis for all parameters listed in the Schedules to this licence; and
 - (ii) any reference measurements for the calibration of automated measurement systems;
- shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards that will ensure the provision of data of an equivalent scientific quality shall apply.
- 6.4 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. The use of alternative equipment, other than in emergency situations, shall be as agreed by the Agency.
- 6.5 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission/discharge (or ambient conditions where that is the monitoring objective).
- 6.6 The licensee shall ensure that groundwater monitoring well sampling equipment is available/installed on-site and is fit for purpose at all times. The sampling equipment shall be to Agency specifications.
- 6.7 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.
- 6.8 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.
- 6.9 The licensee shall prepare a programme, to the satisfaction of the Agency, for the identification and reduction of fugitive emissions using an appropriate combination of best available techniques. This programme shall be included in the Environmental Management Programme.

- 6.10 The integrity and water tightness of all underground pipes (including underground pipes), tanks, bunding structures and containers and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee within six months of the date of grant of this licence. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 6.11 The stormwater drainage system (i.e., gullies, manholes, any visible drainage conduits and such other aspects as may be agreed) shall be visually inspected weekly, and desludged as necessary. Bunds, silt traps and oil separators shall be inspected weekly and desludged as necessary. All sludge and drainage from these operations shall be collected for safe disposal. The drainage system, bunds, silt traps and oil interceptors shall be properly maintained at all times. The licensee shall maintain a drainage map on site. The drainage map shall be reviewed annually and updated as necessary.
- 6.12 All wastewater/leachate/contaminated storm water gullies, drainage grids and manhole covers shall be painted with red squares whilst all clean storm 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 installation operation, and any identification designated in this licence (i.e. SW1) shall be inscribed on these manholes.
- 6.13 An inspection system for the detection of leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be developed and maintained **within six months of the date of grant of this licence**.
- 6.14 Dust and Odour Control
- 6.14.1 The road network in the vicinity of the installation shall be kept free from any debris caused by vehicles entering or leaving the installation. Any such debris or deposited materials shall be removed without delay.
- 6.14.2 The licensee shall install and provide adequate measures for the control of odours and dust emissions, including fugitive dust emissions, from the installation.
- 6.14.3 Dust curtains (or equivalent approved by the Agency) shall be maintained on the entry/exit points from the waste buildings. All other doors in this building shall be kept closed when not in use.
- 6.14.4 All buildings for the storage or treatment of residual, food and odour-forming waste shall be maintained at negative air pressure with ventilated gases being subject to treatment.
- 6.14.5 The licensee shall **prepare**, maintain and implement a programme to demonstrate negative pressure and building envelope integrity throughout all buildings where residual, food or other odour-forming waste is deposited, stored or treated to ensure that there is no significant escape of odours. The programme shall also maintain all criteria for the operation and control of negative pressure. This programme shall be reviewed at least annually.
- 6.14.6 The licensee shall undertake, at a frequency to be agreed or directed by the Agency, and in any case no less than once every three years, an odour impact assessment. The assessment shall identify and quantify all significant odour sources at the installation and shall include an assessment of the suitability and adequacy of the odour control system. Any recommendations arising from the odour impact assessment shall be implemented following agreement by the Agency.
- 6.14.7 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.
- 6.14.8 The licensee shall, within six months of the date of grant of this licence, install airlocks on the two vehicle entrances to the composting building.**
- 6.15 Storm Water

- 6.15.1 A visual examination of the storm water discharges shall be carried out daily. A log of such inspections shall be maintained.
- 6.15.2 The licensee shall, within six months of commencement of the activity, establish suitable trigger levels for TOC, total ammonia and suspended solids in storm water discharges, such that storm waters exceeding these levels will be diverted for retention and suitable disposal. The licensee shall have regard to the Environmental Protection Agency “Guidance on the setting of trigger values for storm water discharges to off-site surface waters at EPA IPPC and Waste licensed facilities” when establishing the suitable trigger levels.
- 6.15.3 The licensee shall, within six months of the date of grant of this licence, develop and maintain to the satisfaction of the Agency a response programme to address instances where the trigger level values are achieved or exceeded. This response programme shall include actions designed to ensure that there will be no storm water discharges of environmental significance.
- 6.16 Noise
- The licensee shall carry out a noise survey of the site operations as required by the Agency. The survey programme shall be undertaken in accordance with the methodology specified in the ‘Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)’ as published by the Agency.
- 6.17 Litter Control
- 6.17.1 All loose litter or other waste, placed on or in the vicinity of the installation, other than in accordance with the requirements of this licence, 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.
- 6.17.2 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the installation are appropriately covered.
- 6.18 Nuisance Monitoring
- The licensee shall, on a daily basis, inspect the installation and its immediate surrounds for nuisances caused by vermin, birds, flies, mud, dust and odours. The licensee shall maintain a record of all nuisance inspections.
- 6.19 Pollutant Release and Transfer Register (PRTR)
- The licensee shall prepare and report a PRTR for the site. The substance and/or wastes to be included in the PRTR shall be determined by reference to EC Regulations No. 166/2006 concerning the establishment of the European Pollutant Release and Transfer Register. The PRTR shall be prepared in accordance with any relevant guidelines issued by the Agency and shall be submitted electronically in specified format and as part of the AER.
- 6.20 The licensee shall, within six months of the date of grant of this licence, develop and establish a Data Management System for collation, archiving, assessing and graphically presenting the monitoring data generated as a result of this licence.

Reason: *To provide for the protection of the environment by way of treatment and monitoring of emissions.*

Condition 7. Resource Use and Energy Efficiency

- 7.1 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this licence. The audit shall be carried out in accordance with the guidance published by the Agency, “Guidance Note on Energy Efficiency Auditing”. The energy efficiency audit shall be repeated at intervals as required by the Agency.
- 7.2 The audit shall identify all practicable opportunities for energy use reduction and efficiency and the recommendations of the audit will be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.
- 7.3 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible. Reductions in water usage shall be incorporated into Schedule of Environmental Objectives and Targets.
- 7.4 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets.

Reason: *To provide for the efficient use of resources and energy in all site operations.*

Condition 8. Materials Handling

- 8.1 The licensee shall ensure that waste generated in the carrying on of the activity shall be prepared for re-use, recycling or recovery or, where that is not technically or economically possible, disposed of in a manner which will prevent or minimise any impact on the environment.
- 8.2 Disposal or recovery of waste on-site shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.
- 8.3 Waste Acceptance and Characterisation Procedures
- 8.3.1 The licensee shall, prior to commencement of waste acceptance at the installation, develop and thereafter maintain and implement detailed written procedures and criteria for:
- (i) basic characterisation, compliance testing, acceptance, on-site verification and handling of all wastes arriving at the installation;
 - (ii) rejection of unacceptable incoming waste; and
 - (iii) ensuring adequate storage capacity exists in advance of waste acceptance.
- 8.3.2 Waste shall be accepted at the installation from known waste producers or new waste producers subject to initial waste profiling and basic characterisation off-site. The written records of this off-site waste profiling and characterisation shall be retained by the licensee for all active waste producers and for a two year period following termination of licensee/waste producer agreements.
- 8.3.3 Waste shall only be accepted at the installation from local authority waste collection or transport vehicles or holders of valid waste collection permits, unless exempted or excluded, issued under the Waste Management Act 1996 as amended. Copies of these waste collection permits shall be maintained at the installation.
- 8.3.4 No hazardous waste shall be accepted at the installation.
- 8.3.5 Waste accepted for biological treatment at the installation shall be conducive to biological treatment, shall facilitate the achievement of any relevant output quality

standards and shall be compatible with the appropriate end-use for the biologically treated material.

- 8.3.6 Waste arriving at the installation shall be inspected and have its documentation checked at the point of entry to the installation and, subject to this verification, shall be weighed, documented and directed to an appropriate area within the waste building. Each load of waste arriving at the waste building shall be inspected upon tipping within the building or, to the extent possible, discharge into a storage vessel. Only after such inspections shall the waste be processed for disposal or recovery.
- 8.3.7 A record of all inspections of incoming waste loads shall be maintained.
- 8.3.8 Any waste deemed unsuitable for processing at the installation and/or in contravention of this licence shall be immediately separated and removed from the installation at the earliest possible time. Temporary storage of such wastes shall be in the designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine area to avoid odour nuisance, the attraction of vermin and any other nuisance or objectionable condition.

8.4 Operational Controls

- 8.4.1 All waste treatment **and storage** shall be carried out inside buildings or enclosed vessels.
- 8.4.2 All residual, food and other odour-forming waste accepted at the installation shall be treated within 72 hours of its arrival at the installation or removed from the installation.
- 8.4.3 The floor and surfaces of the feedstock bays shall be cleaned from waste debris daily or when cleared of waste and in any event every 72 hours.
- 8.4.4 All waste treatment equipment shall be cleared of waste at an appropriate frequency.
- 8.4.5 Scavenging shall not be permitted at the installation.
- 8.4.6 There shall be no mixing of:
- organic fines (and other feedstocks not conducive to the production of high quality compost and digestate suitable for direct land application), or
 - biostabilised residual waste,
with
 - separately collected biowaste (and other feedstocks intended to be used in the production of high quality compost and digestate suitable for direct land application), or
 - compost and digestate that complies with the quality standard set out in *Schedule E: Standards for Compost and Digestate Quality* of this licence or an alternative quality standard.
- 8.4.7 There shall be no movement or transfer of digestate and composting liquors between processes for the treatment of:
- waste and feedstock intended to be used in the production of high quality compost and digestate suitable for direct land application, and
 - organic fines and other waste and feedstocks not conducive to the production of high quality compost and digestate suitable for direct land application.

These liquids may be mixed only where they are intended to be discharged or treated prior to discharge as waste from the installation.

8.5 Waste, Compost and Digestate Storage

All waste, feedstock, compost and digestate storage and holding areas shall be inside buildings or vessels protected as may be appropriate against spillage, leachate run-off and odour emission.

8.6 Waste and Materials Storage Plan

8.6.1 The licensee shall, within three months of the date of grant of this licence, develop and thereafter maintain and implement a Waste and Materials Storage Plan for all waste, other feedstocks, compost, digestate, other materials and waste water stored and held at the installation.

8.6.2 The Waste and Materials Storage Plan shall include:

- the recommendations of the Fire Risk Assessment required by Condition 9.5 of this licence;
- a limit on the total quantity of waste to be stored at the installation at any one time;
- maximum stockpile sizes in designated storage areas including maximum volume, height, length, width and area, and minimum separation distances;
- a limit on the maximum storage or holding period for each type of waste in designated storage areas;
- limitations, as may be necessary, on waste storage arrangements to be used during warm weather to prevent odours arising;
- a drawing or plan of the location of each waste type and the means of storage for each waste type (e.g. as loose waste, baled, in sealed containers);
- details of the drainage system super-imposed on the above drawing or plan; and
- a designated fire quarantine area.

8.6.3 Waste storage and holding practices at the installation shall comply at all times with the Waste Storage Plan.

8.6.4 Waste accepted or generated at the installation, and compost, digestate and waste water, shall be stored or held only in designated areas or vessels that have been identified in the Waste and Materials Storage Plan.

8.6.5 All designated areas or vessels for storage or holding of waste, digestate and waste water shall be:

- clearly labelled;
- appropriately segregated; and
- visibly or physically delineated by walls, dividers, painted lines or marks on the ground or other methods acceptable to the Agency.

8.7 Biogas Treatment

8.7.1 The installation shall be operated to maximise the production of biogas.

8.7.2 The CHP plant shall be suitable for biogas and shall be protected against the corrosive properties of biogas.

8.7.3 The use of the flare unit shall be automatically logged and recorded.

8.7.4 The destruction efficiency of the flare unit shall be determined annually. A record of the test results shall be maintained at the installation for inspection by the Agency.

8.8 Quality of Compost and Digestate

8.8.1 Digestate and compost shall comply with the quality standard as set out in *Schedule E: Standards for Compost and Digestate Quality* of this licence or an alternative quality standard.

8.8.2 An alternative quality standard for digestate and compost may be used subject to the agreement of the Agency. The use of any agreed alternative quality standard for digestate or compost shall not cause direct or indirect adverse impacts on human animal or plant health and shall not cause environmental pollution.

- 8.8.3 Treated waste that fails to meet the quality standard for digestate and compost as set out Tables E.1 Maximum Respiration Activity, E.3 Pathogenic Organism Content Limits, E.4 Impurity Content Limits and E.5 Organic Matter Content Limit of *Schedule E: Standards for Compost and Digestate Quality* of this licence may be reused in the process or treated as waste. Treated waste that fails to meet the quality standard for digestate and compost as set out Table E.2 Maximum Metal Concentration Limits of *Schedule E: Standards for Compost and Digestate Quality* of this licence shall be handled as waste and shall not be reused in the process. A record shall be kept on site of all batches that do not meet the relevant quality standard. Where handled as a waste details shall be recorded as per Condition 11 of the licence.
- 8.8.4 Digestate and compost shall be suitable for agricultural/horticultural improvement or ecological benefit without causing direct or indirect adverse impacts on human, animal or plant health and without causing environmental pollution.
- 8.8.5 Where an alternative digestate or compost quality standard is agreed by the Agency in accordance with Condition 8.8.2 above, the compost and digestate monitoring programme associated with the agreed alternative compost or digestate quality standard may be employed in lieu of the compost and digestate quality monitoring requirements of this licence provided that details and results of the alternative monitoring programme are maintained on-site for inspection by the Agency and are reported to the Agency in accordance with the reporting requirements of this licence.
- 8.8.6 In the event of failure to achieve a quality standard parameter for compost and digestate as set out in *Schedule E: Standards for Compost and Digestate Quality* of this licence:
- (i) The licensee shall evaluate any feedstock and/or process changes relevant to the sampled batch of material prior to the sampling date and specify the corrective actions taken including any re-sampling or reuse of the failed material back into the anaerobic digestion or composting process.
 - (ii) Subsequent batches of treated waste shall be tested against all parameters in *Schedule E: Standards for Compost and Digestate Quality* of this licence in order to re-validate the process. Only following the pass of three successive batches through the process can the process be deemed to be stable and the normal compliance monitoring programme re-instated. The licensee shall notify the Agency when the process has been re-validated and deemed to comply with the requirements of this condition.
 - (iii) A test failure shall be treated as an incident.
- 8.9 Digestate Monitoring
- 8.9.1 Digestate and compost quality monitoring shall be undertaken to demonstrate compliance with the quality standard as set out in *Schedule E: Standards for Compost and Digestate Quality* of this licence.
- 8.9.2 Digestate and compost analysis shall be carried out at the frequency specified below.
- (a) Every six months where more than 500 and up to 1,000 tonnes of digestate or compost is produced per year.
 - (b) At intervals of at least every 1,000 tonnes of digestate or compost produced or every 3 months, whichever comes first, where more than 1,000 and up to 10,000 tonnes of digestate or compost is produced per year.
 - (c) Every month where more than 10,000 tonnes of digestate or compost is produced per year.
- 8.9.3 If the composition of the feedstock changes significantly or if significant modifications are made to the process, the process shall be re-validated by testing batches until three successive batches achieve the relevant standard.

- 8.10 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor. The waste shall be transported from the site of the activity to the site of recovery/disposal only in a manner that will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.
- 8.11 The licensee shall ensure that, in advance of transfer to another person, waste shall be classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.
- 8.12 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off.
- 8.13 No waste classified as green list waste in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended) shall be consigned for recovery without the agreement of the Agency.
- 8.14 Waste for disposal/recovery off-site shall be analysed in accordance with *Schedule C: Control & Monitoring* of this licence.
- 8.15 Unless approved in writing, in advance, by the Agency the licensee is prohibited from mixing a hazardous waste of one category with a hazardous waste of another category or with any other non-hazardous waste.
- 8.16 The licensee shall neither import waste into the State nor export waste out of the State except in accordance with the relevant provisions of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14th June 2006 on shipments of waste and associated national regulations.
- 8.17 The licensee shall record the movement of all **compost and digestate** from the installation. The record of each movement shall as a minimum include the date of movement, quantity, transporter, final recipient/user and location and off-site storage location.
- 8.18 Unless agreed by the Agency the licensee shall not dispose of any waste that has been accepted at the installation for the purpose of a recovery activity. This condition shall not apply to non-recyclable waste that is separated for disposal by the licensee from the incoming waste.
- 8.19 Each load of waste dispatched to landfill shall be accompanied by documentation verifying the type of treatment carried out on the waste and, in the case of municipal waste or treated municipal waste, its biodegradable content.

Reason: *To provide for the appropriate handling of material and the protection of the environment.*

Condition 9. Accident Prevention and Emergency Response

- 9.1 The licensee shall, within six months of date of grant of this licence, ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.2 The licensee shall, within six months of date of grant of this licence, ensure that a documented Emergency Response Procedure is in place that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.3 Incidents
- 9.3.1 In the event of an incident the licensee shall immediately:

- (i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
- (ii) isolate the source of any such emission;
- (iii) evaluate the environmental pollution, if any, caused by the incident;
- (iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
- (v) identify the date, time and place of the incident;
- (vi) notify the Agency and other relevant authorities.

9.3.2 Where an incident or accident that significantly affects the environment occurs, the licensee shall, without delay take measures to limit the environmental consequences of the incident or accident and to prevent further incident or accident.

9.4 Emergencies

9.4.1 In the event of a breakdown of equipment or any other occurrence which results in the closure of the installation for more than 48 hours, any waste arriving, or in the case of putrescible waste already accepted at the installation, shall be transferred directly to an alternative authorised facility until such time as the installation is returned to a fully operational status. The breakdown of equipment or any other occurrence which results in the closure of the installation, regardless of duration, shall be treated as an emergency and rectified as soon as possible.

9.4.2 All significant spillages occurring at the installation shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.

9.5 The licensee shall arrange, prior to the commencement of waste acceptance at the installation and every three years thereafter, for the completion, by an independent and appropriate qualified consultant, of a fire risk assessment for the installation. The assessment shall examine all relevant factors on site that impinge on fire risk and prevention. The assessment shall have regard to the EPA *Guidance Note: Fire Safety at Non-Hazardous Waste Transfer Stations*, 2013. Any recommendations in the fire risk assessment shall be implemented by the licensee.

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

Condition 10. Decommissioning & Residuals Management

10.1 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery any soil, subsoil, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.

10.2 Decommissioning Management Plan (DMP)

10.2.1 The licensee shall prepare, to the satisfaction of the Agency, a fully detailed and costed plan for the decommissioning or closure of the site or part thereof. This plan shall be submitted to the Agency for agreement within six months of the date of grant of the licence.

10.2.2 The plan shall be reviewed annually and proposed amendments thereto notified to the Agency for agreement as part of the AER. No amendments may be implemented without the agreement of the Agency.

10.2.3 The licensee shall have regard to the Environmental Protection Agency's Guidance on Assessing and Costing Environmental Liabilities (2014) and, as appropriate, Guidance on Financial Provision for Environmental Liabilities (2015) and the baseline report, when implementing Conditions 10.2.1 and 10.2.2 above.

- 10.3 The Decommissioning Management Plan shall include, as a minimum, the following:
- (i) a scope statement for the plan;
 - (ii) the criteria that define the successful decommissioning of the activity or part thereof, which ensures minimum impact on the environment;
 - (iii) a programme to achieve the stated criteria;
 - (iv) where relevant, a test programme to demonstrate the successful implementation of the decommissioning plan; and
 - (v) details of the costings for the plan and the financial provisions to underwrite those costs.
- 10.4 A final validation report to include a certificate of completion for the Decommissioning Management Plan, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

Reason: *To make provision for the proper closure of the activity ensuring protection of the environment.*

Condition 11. Notification, Records and Reports

- 11.1 The licensee shall notify the Agency by both telephone and either email or webform, to the Agency's headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:
- (i) an incident or accident that significantly affects the environment;
 - (ii) any release of environmental significance to atmosphere from any potential emissions point including bypasses;
 - (iii) any breach of one or more of the conditions attached to this licence;
 - (iv) any malfunction or breakdown of key control equipment or monitoring equipment set out in *Schedule C: Control & Monitoring*, of this licence which is likely to lead to loss of control of the abatement system; and
 - (v) any incident with the potential for environmental contamination of surface water or groundwater, or posing an environment threat to air or land, or requiring an emergency response by the Local Authority.
- The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions.
- 11.2 The following shall be notified, as soon as practicable after the occurrence of any incident which relates to a discharge to water:
- (i) Inland Fisheries Ireland and Department of Agriculture, Food and the Marine in the case of discharges to receiving waters.
 - (ii) Marine Institute, Sea Fisheries Protection Authority, Food Safety Authority of Ireland and an Bord Iascaigh Mhara in the case of discharges to or likely to impact a shellfish water.
 - (iii) The local authority, in the case of discharges to designated bathing waters.
- 11.3 The licensee shall make a record of any notification made under Conditions **11.1 and 11.2**. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident or accident. The record shall include all corrective actions taken to manage the incident or accident, minimise wastes generated and the effect on the environment, and avoid recurrence. In the case of a breach of a condition, measures to restore compliance. The licensee shall, as soon as practicable following notification, submit to the Agency the record.

- 11.4 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.
- 11.5 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the installation.
- 11.6 The licensee shall as a minimum ensure that the following documents are accessible at the site:
- (i) the licences relating to the installation;
 - (ii) the current EMS for the installation including all associated procedures, reports, records and other documents;
 - (iii) the previous year's AER for the installation;
 - (iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the installation;
 - (v) relevant correspondence with the Agency;
 - (vi) up-to-date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points;
 - (vii) up-to-date Standard Operational Procedures for all processes, plant and equipment necessary to give effect to this licence or otherwise to ensure that standard operation of such processes, plant or equipment does not result in unauthorised emissions to the environment; and
 - (viii) any elements of the licence application or EIS documentation referenced in this licence.
- This documentation shall be available to the Agency for inspection at all reasonable times.
- 11.7 A record shall be kept at the installation of the programme for the control and eradication of vermin and fly infestations at the installation. These records shall include as a minimum the following:
- (i) the date and time during which spraying of insecticide is carried out;
 - (ii) contractor details;
 - (iii) contractor logs and installation inspection reports;
 - (iv) details of the rodenticide(s) and insecticide(s) used;
 - (v) operator training details;
 - (vi) details of any infestations;
 - (vii) mode, frequency, location and quantity of application; and
 - (viii) measures to contain sprays within the installation boundary.
- 11.8 The licensee shall submit to the Agency, by the 31st March of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule F: Annual Environmental Report*, of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.
- 11.9 **Waste Recovery Reports**
- The licensee shall as part of the AER submit a report on the contribution by this installation to the achievement of the recovery targets and strategy stated in national and European Union waste policies.
- 11.10 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations

and practices at this site. This record shall be maintained on a monthly basis and shall as a minimum contain details of the following:

- (i) the tonnages and LoW Code for the waste materials imported and/or sent off-site for disposal/recovery;
- (ii) the names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number);
- (iii) details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its permit/licence details and issuing authority, if required;
- (iv) written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site;
- (v) details of all waste consigned abroad for Recovery and classified as 'Green' in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended). The rationale for the classification must form part of the record;
- (vi) details of any rejected consignments;
- (vii) details of any approved waste mixing;
- (viii) the results of any waste analyses required under *Schedule C: Control & Monitoring*, of this licence;
- (ix) the tonnage and LoW Code for the waste materials recovered/disposed on-site; **and**
- (x) **the quantity and destination (including name and address of recipient if landspread) of compost and digestate dispatched from the installation.**

11.11 The licensee shall maintain a computer-based record for each load of waste arriving at and departing from the installation. The licensee shall record the following:

- (i) the date and time;
- (ii) the name of the carrier (including if appropriate, the waste carrier registration details);
- (iii) the vehicle registration number;
- (iv) the trailer, skip or other container unique identification number (where relevant);
- (v) the name of the producer(s)/collector(s) of the waste as appropriate;
- (vi) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;
- (vii) a description of the waste including the associated LoW codes;
- (viii) the quantity of the waste, recorded in tonnes;
- (ix) details of the treatment(s) to which the waste has been subjected;
- (x) the classification and coding of the waste, including whether MSW or otherwise;
- (xi) whether the waste is for disposal or recovery and if recovery for what purpose;
- (xii) the name of the person checking the load; and
- (xiii) 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.

11.12 The licensee shall submit reports as required by the conditions of this licence to the Agency's Headquarters in Wexford, or to such other Agency office as may be specified by the Agency.

11.13 All reports shall be certified accurate and representative by the installation manager or a nominated, suitably qualified and experienced deputy.

Reason: *To provide for the collection and reporting of adequate information on the activity.*

Condition 12. Financial Charges and Provisions

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of **€10,772**, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Environmental Protection Agency Act 1992 as amended. The first payment shall be a pro-rata amount for the period from the date of grant of this licence (date of commencement of enforcement) to the 31st day of December, and shall be paid to the Agency within one month from the date of grant of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Environmental Protection Agency Act 1992 as amended and all such payments shall be made within one month of the date upon which demanded by the Agency.

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 defray its costs in regard to items not covered by the said annual contribution.

12.2 Environmental Liabilities

12.2.1 The licensee shall as part of the AER, provide an annual statement as to the measures taken or adopted at the site in relation to the prevention of environmental damage, and the financial provisions in place in relation to the underwriting of costs for remedial actions following anticipated events (including closure) or accidents/incidents, as may be associated with the carrying on of the activity.

12.2.2 The licensee shall arrange for the completion, by an independent and appropriately qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) which addresses the liabilities from past and present activities. The assessment shall include those liabilities and costs identified in Condition 10 for execution of the DMP. A report on this assessment shall be submitted to the Agency for agreement within **six** months of date of grant of this licence. The ELRA shall be reviewed as necessary to reflect any significant change on site, and in any case every three years following initial agreement. Review results are to be notified as part of the AER.

12.2.3 The licensee shall, prior to waste acceptance at the installation exceeding 8,000 tonnes per annum and in any event within nine months of the date of grant of this licence and to the satisfaction of the Agency, make financial provision to cover any liabilities associated with the operation (including closure and decommissioning). The amount of indemnity held shall be reviewed and revised as necessary, but at least annually. Proof of renewal or revision of such financial indemnity shall be included in the annual 'Statement of Measures' report identified in Condition 12.2.1.

12.2.4 The licensee shall revise the cost of closure and decommissioning annually and any adjustments shall be reflected in the financial provision made under Condition 12.2.3.

12.2.5 The licensee shall have regard to the Environmental Protection Agency's Guidance on Assessing and Costing Environmental Liabilities (2014) and, as appropriate, Guidance on Financial Provision for Environmental Liabilities (2015) and the baseline report, when implementing Conditions 12.2.2, 12.2.3 and 12.2.4 above.

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

SCHEDULE A: Limitations

A.1 Waste Processes

The following waste related processes are authorised:

- (i) Composting of waste and associated processes including:
 - waste pre-treatment and preparation for composting,
 - storage of waste and outputs of waste treatment, and
 - processes for the management and mitigation of environmental emissions.
- (ii) Anaerobic digestion of waste and associated processes including:
 - waste pre-treatment and preparation for anaerobic digestion,
 - digestate treatment,
 - biogas combustion in combined heat and power plant and flare,
 - storage of waste and outputs of waste treatment, and
 - processes for the management and mitigation of environmental emissions.

No additions to these processes are permitted unless agreed in advance with the Agency.



A.2 Waste Acceptance

Table A.2 Waste Categories and Quantities for Treatment

The approved list of wastes in the following table is without prejudice to any restrictions placed on the activity by the Department of Agriculture, Food and the Marine in relation to the processing of waste comprising or containing animal by-products.

WASTE TYPE ^{Note 1}	LoW CODES ^{Note 1}	MAXIMUM ^{Note 2}
Non-hazardous municipal, commercial and industrial source separated waste and non-hazardous sludges including sludges from industrial and municipal waste water treatment plant that is conducive to treatment by composting or anaerobic digestion and the generation of high quality compost and digestate in accordance with <i>Schedule E</i> of this licence.	02 05 02 02 07 01 02 07 04 02 07 05 07 05 12 20 01 08 20 01 25 20 02 01	40,000 tonnes per annum

Note 1: Any proposals to accept other compatible non-hazardous waste types must be agreed in advance by the Agency.

Note 2: This maximum refers to the quantity of material, whether classified as waste or not, that can be accepted at the installation for **composting and/or** anaerobic digestion.

SCHEDULE B: Emission Limits

B.1 Emissions to Air

B.1.1 Emission Limit Value for Biofilters

Emission Point reference no: AEP-5 Existing Woodchip Biofilter
Location: Biofilter unit (Composting Building) as per Drawing No. 12193-01 Rev. C
Minimum discharge height: 3.1 m above ground
Maximum flow volume: 50,000 Nm³/hr

Emission Point reference no: AEP-6 Existing LECA Biofilter
Location: Biofilter unit (Composting Building) as per Drawing No. 12193-01 Rev. C
Minimum discharge height: 4.45 m above ground
Maximum flow volume: 50,000 Nm³/hr

Emission Point reference no: AEP-7 Proposed LECA Biofilter
Location: Biofilter unit (AD Waste Reception Building) as per Drawing No. 12193-01 Rev. C
Minimum discharge height: 4.45 m above ground
Maximum flow volume: 50,000 Nm³/hr

Parameter	Emission Limit Value
Odour	1,000 Ou _E /m ³



Emission Point reference no: AEP-8 Proposed LECA Biofilter
Location: Biofilter unit (Pasteurisation Building) as per Drawing No. 12193-01 Rev. C
Minimum discharge height: 6 m above ground
Maximum flow volume: 30,000 Nm³/hr

Parameter	Emission Limit Value
Odour	700 Ou _E /m ³



B.1.2 Emission Limit Values for Biogas Combustion

Emission Points Reference No.: CHP Plant Gas Engines AEP-1 (247343 N 117964 E)
 AEP-2 (247348 N 117973 E)
 AEP-3 (**grid reference to be advised when built**)

Minimum discharge height: 16 m above ground

Maximum flow volume (each gas engine): 3,000 Nm³/hr

Parameter	Emission Limit Value
Nitrogen oxides (NO _x as NO ₂)	500 mg/m ³
Sulphur dioxide	300 mg/m ³
Carbon monoxide	1,400 mg/m ³
Total VOCs (incl. CH ₄)	1000 mg/m ³
Total non-methane volatile organic compounds	50 mg/m ³

**B.1.3 Dust Deposition Limits**

Monitoring Point Reference No.: AD1, AD2, AD3 and AD4

Location: as per Drawing No. 12193-01 Rev. C

Level (mg/m ² /day) ^{Note 1}
350

Note 2: 30 day composite sample with the results expressed as mg/m² /day.



B.2 Emissions to Water

There shall be no emissions to water of environmental significance.

**B.3 Emissions to Sewer**

There shall be no process effluent emissions to sewer.

**B.4 Noise Emissions**

Monitoring Points Reference No: AN1, AN2, AN3 and AN4 (as per drawing No. 12193-01 Rev. C)

Daytime dB L _{Ar,T} (30 minutes)	Evening time dB L _{Ar,T} (30 minutes)	Night-time dB L _{Aeq,T} (15-30 minutes)
55	50	45 ^{Note 1}

Note 1: There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise-sensitive location.



SCHEDULE C: Control & Monitoring

C.1.1 Control of Emissions to Air

Emission Point Reference No: AEP-5 (Biofilter Composting Building)
 AEP-6 (Biofilter Composting Building)
 AEP-7 (Biofilter AD Waste Reception Building)
 AEP-8 (Biofilter Pasteurisation Building)

Description of Treatment: Acid scrubbing
 Bio-filtration

Control Parameter	Monitoring	Key Equipment ^{Note 1}
Air Management and Treatment		
Air extraction	Continuous with alarm/call-out	Pumps/ engines Pressure gauges
Acid scrubbing	Daily visual check of flow	Flow and level meters
	Daily visual check of pressure drop	Pressure gauges
Bio-filters		
Ammonia	Monthly (at inlet and outlet)	Colorimetric indicator tubes ^{Note 2}
Hydrogen sulphide	Monthly (at inlet and outlet)	Colorimetric indicator tubes ^{Note 2}
Mercaptans	Monthly (at inlet and outlet)	Colorimetric indicator tubes ^{Note 2}
Amines	Monthly (at inlet and outlet)	Colorimetric indicator tubes ^{Note 2}
Bed Media ^{Note 3}		
Odour assessment	Daily	Subjective impression
Condition and depth of bed media	Daily	Visual inspection
Moisture content	Monthly	Agreed method
pH	Bi-annually	Agreed method
Ammonia	Bi-annually	Agreed method
Total viable counts	Bi-annually	Agreed method
General		
Fan	Daily visual check	System is operational
Negative pressure across biofilter	Monthly	Air current tubes
		SCADA control system

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

Note 2: Or an alternative method agreed by the Agency.

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

Emission Point Reference No: Gas utilisation engines: AEP-1, AEP-2 and AEP-3

Description of Treatment: Biogas combustion

Control Parameter	Monitoring	Key Equipment ^{Note 1}
Biogas intake flow	Continuous with alarm/call-out	Flow detector
Pressure in gas system	Continuous with alarm/call-out	Pressure gauge or equivalent approved Standby flare
Continuous burn	Continuous with alarm/call-out	Flame detector or equivalent approved Pumps/engines Standby flare
Stack temperature	Continuous with alarm/call-out	Temperature probe
Stack efflux velocity	Continuous with alarm/call-out	Standard equipment
Emission flow volume	Continuous with alarm/call-out	Standard equipment
Gas engine operation	Continuous with alarm/call-out	Standard equipment
Quality of biogas	Concentration of total halogenated hydrocarbons and sulphur compounds.	Standard sampling and analytical equipment
Internal combustion stability	Continuous stability monitoring	Frequency control system

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.



Emission Point Reference No:

Flare: AEP-4

Location:

as per drawing No. 12193-01 Rev. C

Description of Treatment:

Biogas Combustion

Control Parameter	Monitoring	Key Equipment ^{Note 1}
Automatic ignition	Continuous monitoring of biogas levels	Gas storage tank level monitoring
Automatic temperature/pressure	Flow, pressure and temperature	Flow, pressure and temperature indicators
Flare unit efficiency	Annual testing	Appropriate equipment
Flue gas outlet temperature (at least 900°C at all times)	Continuous with alarm/call-out	Standard equipment
Flue gas residence time (at least 0.3 seconds at all times)	Continuous with alarm/call-out	Standard equipment

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.



C.1.2 Monitoring of Emissions to Air

Emission Point Reference No: Biofilters: AEP-5, AEP-6, AEP-7 and AEP-8

Parameter	Monitoring Frequency	Analysis Method/Technique
Odour	Quarterly	To be agreed by the Agency



Emission Point Reference No: AEP-1, AEP-2 and AEP-3

Description of Treatment: CHP plant - biogas combustion

Parameter	Monitoring	Analysis Method/Technique
NO _x (asNO ₂) SO _x (as SO ₂) H ₂ S Total VOCs (including CH ₄) Total non-methane Volatile organic compounds	Monthly for the first twelve months of operation and quarterly thereafter	To be agreed by the Agency
CO	Continuous	



C.2 Monitoring of Biological Treatment Processes

Parameter	Monitoring Frequency	Monitoring equipment/method
• Composting process		
Temperature	Continuous	Temperature probe/recorder
Oxygen Content	Daily	Oxygen Probe with recorder
Moisture	Daily	Subjective by operator.
• Composting process (curing)		
Temperature	Continuous	Temperature probe
Moisture	Daily	Subjective by operator.
• Anaerobic digestion process		
Temperature	Continuous	Temperature probe and recorder
pH in digesters	Daily	pH probe
Pressure relief valve status (open/closed)	Continuous on each valve	Event and time recorder
Biogas flow	Continuous	Flow meter and recorder
Biogas pressure in digester system	Continuous	Pressure gauge and recorder
Biogas pressure in storage system	Continuous	Pressure gauge and recorder
Biogas pressure in CHP and flare systems	Continuous	Pressure gauge and recorder
CHP runtime	Continuous	Time recorder
Flare runtime	Continuous	Time recorder
Tank mixing systems status (on/off)	Continuous	Event and time recorder
• Biogas analysis from anaerobic digestion (prior to use)		
CH₄	Continuous	Probe with recorder
CO₂	Continuous	Probe with recorder
Total halogenated hydrocarbons	Monthly	To be agreed
Sulphur compounds	Monthly	To be agreed
• General		
Liquid level in percolate, leachate and liquor tanks	Continuous	Probe with recorder
Foam level and control in digestion tanks	Continuous	Probe and foam dissipation techniques

C.3.1 Control of Emissions to Water

There shall be no emissions to water of environmental significance.

**C.3.2 Monitoring of Emissions to Water**

There shall be no emissions to water of environmental significance.

**C.3.3 Control of Storm Water Emissions**

Emission Point Reference No: SW1
Emission/Monitoring Point Location: As per Drawing No. 12193-01 Rev. C

Control Parameter	Monitoring	Key Equipment
Oil removal	Mineral oil concentration in water at discharge point	Class I full retention oil separators
Suspended solids	Suspended solids concentration in water at discharge point	Shut-off valve Silt trap

**C.3.4 Monitoring of Storm Water Emissions**

Discharge Point Reference No: SW1

Parameter	Monitoring Frequency	Analysis Method/Technique ^{Note 1}
pH	Weekly	Standard method
Temperature	Quarterly	Standard method
COD	Quarterly	Standard method
BOD	Quarterly	Standard method
Suspended Solids	Quarterly	Standard method
Total Ammonia	Quarterly	Standard method
Total Nitrogen	Quarterly	Standard method
Conductivity	Weekly	Standard method
Mineral Oil	Quarterly	Standard method
Sulphate	Quarterly	Standard method
Visual Inspection	Daily	Sample and examine for colour and odour ^{Note 2}

Note 1: Analysis to be carried out by a competent laboratory, using standard and internationally accepted procedures.

Note 2: Where there is evidence of contamination, additional samples should be analysed and the full suite of parameters shown tested.



C.4.1 Control of Emissions to Sewer

There shall be no process effluent emissions to sewer.



C.4.2 Monitoring of Emissions to Sewer

There shall be no process effluent emissions to Sewer.



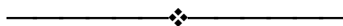
C.5 Noise Monitoring

Location: AN1, AN2, AN3 and AN4 (as per Drawing Number No. 12193-01 Rev. C)

Period	Minimum Survey Duration ^{Note 2}
Daytime (07:00 to 19:00hrs)	A minimum of 3 sampling periods at each noise monitoring location
Evening-time (19:00 to 23:00hrs)	A minimum of 1 sampling period at each noise monitoring location.
Night-time ^{Note 1} (23:00 to 07:00hrs)	A minimum of 2 sampling periods at each noise monitoring location.

Note 1: Night-time measurements should be made between 2300hrs and 0400hrs, Sunday to Thursday, with 2300hrs being the preferred start time.

Note 2: Sampling period is to be the time period T stated as per *Schedule B.4 Noise Emissions, of this licence*. This applies to day, evening and night time periods.



C.6 Ambient Monitoring

C.6.1 Dust Deposition and Micro-Organisms

Location: Dust - monitoring stations AD1, AD2, AD3 and AD4 (as per Drawing Number No. 12193-01 Rev. C)

Micro-organisms - at upwind and downwind locations to be agreed by the Agency or at any other locations as may be required by the Agency

Parameter	Monitoring Frequency	Analysis Method/Technique
Dust deposition	Quarterly ^{Note 1}	VDI 2119 (Bergerhoff method)
Bacteria	Quarterly	Grab sample ^{Note 2}
Aspergillus fumigatus	Quarterly	Grab sample ^{Note 2}

Note 1: Twice during the period May to September concurrently with all of the above.

Note 2: 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 Composting Association (1999) or alternative method and/or frequency as may be agreed by the Agency.

C.6.2 Groundwater Monitoring

Location:

- On-site drinking water well
- Off-site wells: BH-1 and GW-2 (as per Figure 5.1 titled Borehole Location Plan)

Parameter	Monitoring Frequency	Analysis Method/Techniques
pH	Biannually	pH electrode/meter
Suspended solids	Biannually	Standard Method
BOD	Biannually	Standard Method
COD	Biannually	Standard Method
Nitrate	Biannually	Standard Method
Total Ammonia	Biannually	Standard Method
Total Nitrogen	Biannually	Standard Method
Sulphate	Biannually	Standard Method
Total Petroleum Hydrocarbons	Biannually	Standard Method
Orthophosphate	Biannually	Standard Method
Conductivity	Biannually	Standard Method
Chloride	Biannually	Standard Method
Fluoride	Biannually	Standard Method
Hazardous Compounds ^{Note 1}	Biannually	Standard Method

Note 1: The relevant hazardous substances for monitoring in groundwater shall be identified by the licensee by undertaking a risk based assessment. The licensee shall have regard to the 'Classification of Hazardous and Non-Hazardous Substances in Groundwater' issued by the Agency.



C.6.3 Soil Monitoring

Location:

- To be agreed

Parameter	Monitoring Frequency	Analysis Method/Techniques
Relevant hazardous substances	Every ten years	Standard Method

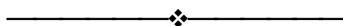


C.7 Waste, digestate and compost Testing

Parameter	Monitoring Frequency	Analysis Method /Techniques
Inlet and outlet flow of anaerobic digesters: TOC, COD, N, P, Cl	Weekly	Standard method
Digester contents: <ul style="list-style-type: none"> • Volatile fatty acids • Alkalinity 	Daily	Standard method
Digestate and compost	Per conditions of this licence	Standard method
Municipal waste dispatched to landfill: BMW content	As may be specified by the Agency or as required to generate a site specific BMW factor	Waste characterisation or other methods as may be specified

**SCHEDULE D: Specified Engineering Works**

Specified Engineering Works
<p>Installation of gas engine.</p> <p>Upgrade and construction of biofilters.</p> <p>Construction of Building No. 2.</p> <p>Construction of a silage storage area.</p> <p>Construction of airlock entrances at the Composting Building.</p> <p>Any other works notified in writing by the Agency.</p>



SCHEDULE E: Standards for Compost and Digestate Quality

Compost and Digestate Quality

The following criteria are deemed a quality standard for the use of compost and digestate as a soil improver if applied to land in accordance with statutory obligations and requirements under any other enactments or regulations. The following criteria should not be deemed as criteria for fertiliser. Compost and digestate for other end uses may require stricter and/or additional criteria to be achieved.

N, P, K, NH₄-N, NO₃-N, pH and dry matter content shall be measured and reported upon in compost and digestate quality reports in order to facilitate the end use of the compost and digestate.

The criteria apply to the compost and digestate just after the final phase of treatment and prior to mixing with any other materials.

1. Stability

Table E.1- Maximum Respiration Activity

Parameter	Quality Limit
Stability	Oxygen Uptake Rate (OUR), ≤ 13 mmol O ₂ /kg organic solids/hour



2. Metals ^{Note 1, 2 & 3}

Table E.2 – Maximum Metal Concentration Limits

Parameter (mg/kg, dry mass)	Compost/Digestate Limit (mg/kg dry matter)
Cadmium (Cd)	1.5
Chromium (Cr)	150
Copper (Cu)	150
Mercury (Hg)	1
Nickel (Ni)	75
Lead (Pb)	150
Zinc (Zn)	400

Note 1: These limits 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 2: Incoming sludges (other than sewage sludges) shall be monitored quarterly (on a client by client basis) for the parameters outlined in this table and also for selenium (Se) and molybdenum (Mo).

Note 3: Monitoring of arsenic (As) is required if waste timber is used in the anaerobic digestion process.



3. Pathogens

If this installation is regulated by the Department of Agriculture, Food and the Marine under the Animal By-products Regulation and the compost and digestate has been sanitised in accordance with that Department's requirements, there is no requirement for further testing,

provided that records of the testing form part of the compost and digestate quality records maintained in accordance with this licence.

If the above does not apply, the pathogenic organism content shall not exceed the limits for the following indicator species:

Table E.3 – Pathogenic Organism Content Limits

Species	Limit	Sample Number (n)
Salmonella spp.	Absent in 25g	n=5
Escherichia coli	≤ 1000 CFU per gram of fresh mass	n=5

Where n = Number of samples to be tested.

4. Impurities

Table E.4 – Impurity Content Limits

Parameter	Digestate Limit
Impurities ^{Note 1} > 2 mm	< 0.5%
Gravel and Stones > 5 mm	< 5%
Sharps	Compost and digestate shall not contain any sharp impurity measuring over a 2 mm dimension that could cause damage or injury to humans, animals or plant during, or resulting from, its intended use.

Note 1: Impurities generally refer to macroscopic fragments of glass, metals, plastics or similar non-biodegradable materials.

5. Organic Matter

Table E.5 – Organic Matter Content Limit

Parameter	Digestate Limit
Organic Matter	≥ 20%

6. Miscellaneous

Table E.6 – Maturity Test

Parameter	Digestate Limit
Viable Weed Seeds	< 3 viable weed seed per litre
Other	As may be agreed by the Agency

SCHEDULE F: Annual Environmental Report

Annual Environmental Report Content ^{Note 1}
<p>Emissions from the installation.</p> <p>Waste management record.</p> <p>Amount of compost, digestate and bio-stabilised residual waste produced per annum.</p> <p>Energy and heat generation summary.</p> <p>Use of biogas flare and biogas venting summary.</p> <p>Resource consumption summary.</p> <p>Complaints summary.</p> <p>Schedule of Environmental Objectives and Targets.</p> <p>Environmental management programme – report for previous year.</p> <p>Environmental management programme – proposal for current year.</p> <p>Pollutant Release and Transfer Register – report for previous year.</p> <p>Pollutant Release and transfer Register – proposal for current year.</p> <p>Noise monitoring report summary.</p> <p>Ambient monitoring summary.</p> <p>Tank and pipeline assessment report.</p> <p>Reported incidents summary.</p> <p>Energy efficiency audit report summary.</p> <p>Report on the assessment of the efficiency of use of raw materials in processes and the reduction in waste generated.</p> <p>Volume of trade effluent/leachate and/or contaminated storm water produced and volume transported off-site.</p> <p>Report on progress made and proposals being developed to minimise water demand.</p> <p>Development/Infrastructural works summary (completed in previous year or prepared for current year).</p> <p>Reports on financial provision made under this licence, management and staffing structure of the installation, and a programme for public information.</p> <p>Review of Decommissioning Management Plan.</p> <p>Statement of measures in relation to prevention of environmental damage and remedial actions (Environmental Liabilities).</p> <p>Environmental Liabilities Risk Assessment Review (every three years or more frequently as dictated by relevant on-site change including financial provisions).</p> <p>Destination and uses of compost and digestate produced.</p> <p>Any other items specified by the Agency.</p>

Note 1: Content may be revised subject to the agreement of the Agency.

Signed on behalf of the said Agency _____
 On the xx day of xxxxx, 200X xxxxxxxxxxxx **Authorised Person**