CHECKLIST FOR RD (IED/IPC/WASTE) and PD (POST DIRECTOR/BOARD)

Reg No: {epa_RegNo} **Licensee/Applicant Name: {@name}**

NOTE: Each reviewer to tick items checked. (Minimum review of clear unshaded box under each reviewer heading)

To be completed by each reviewer								
	DATE	**SIGNATURE**						
Inspector *(First Review)*	04/11/2022, 07/12/2022	David Matthews						
L3	14.11.2022	Jennifer Cope						
L2	02/12/2022	Niamh O'Donoghue						
PM	23-01-23	Marie O'Connor						
Inspector *(FINAL REVIEW BEFORE ADMIN)*								
Admin (Pre Board)								
Admin (Pst Board)		Assigned Programme Officer (APO) –						
		2nd Admin Reviewer- (AR)						
Section	**Action**	**Check**						
		Insp *(First Review)*	**L3**	**L2**	**PM**	**Insp** *(FINAL REVIEW BEFORE ADMIN)*	**Admin** *Pre Board (AA)*	**Admin** *Post Board (L4/L5)*
General	High level read through & spot checks	√	√	√	x			
	Science & readability				x			
	Ensure compatibility with IR & S86 of Act	√	√	√				
	Page numbers are present	√	√					
	Ensure RD sign off is as per template							
	Ensure PD sign off is at correct date							APO ***AR***
	Check Header and Footers: 1. Front Page – no footer or header 2. Make sure all headers are present 3. Introduction & Table of Contents – footer but no page number. 4. Glossary – footer with page number – (should start at Page 1)						1. 2. 3. 4.	
	Font – Times new Roman, black	√						
	Check abnormal working condition/breakdown condition in place (S86(1)(a)(v))	√	√					
	Check incident/& non-compliance notification condition in place (S86(1)(a)(vi), (ix) & (x))	√	√					
	Check monitoring and reporting requirements in place (i.e. AER) (S86(1)(a)(iva))	√	√					

	Template changes up to date							
Board Changes	Make sure that all changes reflect Board/Director e-mail/Minutes.							APO ***AR***
Front page	Reg. No. - {epa_RegNo}	√	√					
	Applicant & facility(waste)/installation (IE/IPC) name & site address (use full words, i.e. Limited for Ltd., Company for Co., etc) against original application form - {pnp_CompanyRegNumber}	√	√					
	CRO number corresponds with CRO website, the application form and the Cert of Incorporation in application -	√						
	'Applicant' if new application *'Licensee'* if review	√						
	'Recommended' is changed to *'Proposed'*							
Introduction	Check applicants name is correct	√	√					
Table of Contents	Update Table of Contents – This can be done by right clicking on the table and selecting *'update table'*							APO
	Check that Conditions are on the correct page numbers and the names of the Conditions are correct.	√						APO
Glossary of Terms	Check applicant/licensee name, CRO and registered address is present and correct	√	√					
Decision & Reasons for Decision	Check if paragraph re Screening for Appropriate Assessment is present	√	√					
	Reference to EIA correct	√	√					
	If a submission was received make sure the sentence re submissions is present.	√	√					
	Change date in RD to the date the document is **submitted** to board/director (should match the date on the IR)							
	AA is mentioned & correct	√	√					
	Check AA wording matches IR	√	√					
	Refer to template wording for Decision & Reasons for Decision wording to be inserted	√	√					APO
	Replace any reference of **RD** to **licence**							
Part 1: Schedule of Activities	Name, CRO and address are correct	√						AR
	Class of Activity matches what is in IR							
	Refer to template wording for Part 1: Schedule of Activities wording to be inserted.							APO
Part 2: Conditions	High level read through & spot checks	√	√	√				
	Condition numbering is correct	√	√					APO

	Reviews: end of Condition 1 – check date of current licence is correct	√	√					APO
	Conditions/schedule numbering & correct referencing throughout licence	√	√	√				APO
	Grammatical & formatting errors (new conditions) & alignment of paragraphs	√	√					APO
	Review bolded conditions		√	√				
	Unbold conditions							APO
	Where Schedules are referenced in a Condition, they should be in italics, followed by "of this licence". Also check that the Schedule references are correct. Compare them to the actual Schedules themselves.	√	√					APO
	Make sure that "*agreed with the Agency"* has been corrected to "*agreed by the Agency"* in all Conditions and Schedules	√	√					
Schedules	High level read through & spot checks	√	√	√				
	Check ELVs & monitoring for compliance with [S86(1)(a), S86(3), S86A]	√	√	√				
	Check emission point references (check against existing licence if review)	√	√	√				
	Check Alignment	√	√					APO
	Check that Schedules are numbered correctly	√	√					APO
	Check that all Note 1 etc are present in the Tables. Ensure notes are aligned properly	√	√	√				APO

Black text – usually included
Purple text – EPA Act
Red text – Class 11 activities as appropriate
Blue text – Optional text
Green text – Review
Pink text – EIA
Olive Green text – Appropriate Assessment
Orange text – instructional notes

IEL

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

INDUSTRIAL EMISSIONS LICENCE
Recommended Determination

Licence Register Number:	**W0287-02**
Company Register Number:	**403413**
Licensee:	**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 an anaerobic digestion installation at Killowen, Portlaw, County Waterford. The installation will comprise infrastructure for the acceptance, storage, and treatment of biodegradable waste and other feedstocks, and for the use of biogas in a combined heat and power plant to produce renewable electricity. Purified biogas will also be bottled for use offsite. This licence authorises the acceptance of 80,000 tonnes per annum of non-hazardous biodegradable waste and other feedstock.

For the purposes of the EU Industrial Emissions Directive (2010 2010/75/EU), this installation falls within the scope of the following Annex 1 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 /27 1 /EEC:
> (i) biological treatment;
> 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, unless otherwise defined in the glossary.

Accident	**For the purpose of this licence an accident means an unplanned event that may result in pollution.**
Adequate lighting	20 lux measured at ground level.
AER	Annual Environmental Report.
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Air lock system	A system of two doors, one or other of which is closed at all times, that permits the delivery of waste whilst minimising the escape of fugitive emissions from the waste building.
Anaerobic Digestion	**The biological decomposition of biodegradable waste in the absence of oxygen and under controlled conditions by the action of micro-organisms in order to produce digestate and a combustible gas.**
Approval	**Approval in writing/electronically.**
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 or installation, 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.
BAT	**Best Available Techniques (BAT), as described in the Commission Implementing Decision (CID) 2018/1147 of 10 August 2018 establishmg best available techniques (BAT) conclusions for waste treatment (2018/1147), under Directive 2010/75/EU of the European Parliament and of the Council. Reference to BAT numbers in the conditions of this licence are references to the BAT Conclusions according to how they are numbered in the aforementioned CID.**
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.

Bioaerosol	**An aerosol of biological particles.**
Biannually	At approximately six – monthly intervals.
Biennially	Once every two years.
Biodegradable waste	**Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard, including biowaste.**
Biodegradable municipal waste (BMW)	**The biodegradable component of municipal waste, typically composed of food and garden waste, wood, paper, cardboard and textiles.**
Biogas	**Combustible gas generated during the anaerobic digestion of waste and typically containing 50-75% methane, 30-45% carbon dioxide as well as other contaminants such as hydrogen sulphide, oxygen, nitrogen and ammonia.**
Biological treatment	**Biological treatment involves composting, anaerobic digestion, mechanical biological treatment or any other process for stabilising and sanitising biodegradable waste, including pre-treatment processes.**
Biowaste	Biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises and comparable waste from food processing plants.
BOD	5-day Biochemical Oxygen Demand (without nitrification suppression).
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
Channelled emissions	**Emissions of pollutants into the environment through any kind of duct, pipe, stack, etc. This also includes emissions from open-top biofilters.**
COD	Chemical Oxygen Demand.
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.
Commercial waste	As defined in Section 5(1) of the Waste Management Act 1996, as amended.
Compost	**Stable, sanitised and humus like material rich in organic matter and free from offensive odours resulting from composting, of separately collected biowaste which complies with the compost quality standards outlined in *Schedule F: Standards for Compost and Digestate Quality*, of this licence.**
Composting	**The autothermic and thermophilic biological decomposition of separately collected biowaste in the presence of oxygen and under controlled conditions by the action of micro-organisms and macro-organisms in order to produce compost.**
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	0700hrs to 1900hrs.
dB(A)	Decibels (A weighted).
Digestate	The treated output, sanitised and free from offensive odours, 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.
Diffuse Emissions	**Non-channelled emissions which can result from 'area' sources (e.g. tanks) or 'point' sources (e.g. pipe flanges).**
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 *Schedule B: Emission Limits*, of this licence.
EMP	Environmental Management Programme.
EMS	**Environment Management System. The aspect of the organisation's overall management structure that addresses immediate and long-term impacts of its products, services and processes on the environment.**
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.
Flaring	**High-temperature oxidation to burn combustible compounds of waste gases from industrial operations with an open flame. Flaring is primarily used for burning off flammable gas for safety reasons or during non-routine operating conditions.**

Forced aeration	**The supply of air to a compost pile, by pumping (positive pressure) or by sucking air through the composting material (negative pressure).**
Fortnightly	A minimum of 24 times per year, at approximately two-week intervals.
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), as amended.
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 an 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 malfunction or breakdown of key environmental abatement, control or monitoring equipment; (iv) any exceedance of the daily duty capacity of the waste handling equipment; (v) any trigger level specified in this licence which is attained or exceeded; (vi) 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.
Installation Manager	**The licensee or an authorised representative of the licensee with the appropriate seniority and authority to ensure compliance with the licence**.
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.
Local Authority	Waterford County Council.
List of Wastes (LoW)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2014/955/EU, as amended by any subsequent amendment published in the Official Journal of the European Community.
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.
Maturity	**Characteristic of a composted material that makes the material fit for purpose and ready for use in a specific application.**
Monthly	A minimum of 12 times per year, at intervals of approximately one month.
Municipal Waste	**As defined in Section 5(1) of the Waste Management Act 1996, as amended**.
Night-time	2300hrs to 0700hrs.
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.

Odour control system	**Includes the biofilter, ducting, fans for inducing negative pressure in buildings and vessels, the main building, the fibre store building and outdoor vessels used for the storage of incoming waste.**
Odour-sensitive location	**Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other premises or area of high amenity which for its proper enjoyment requires the absence of odour at nuisance levels.**
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.
Periodic measurement	**Measurement at specified time intervals using manual or automated methods.**
Potential emissions	**Emissions which take place only under abnormal operating conditions. Examples include emissions from overpressure valves, bursting discs, and emergency generators**.
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 Habitats Directive, 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.
SPA	**Special Protection Area designated under the Birds Directive, Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds**.

Specified emissions	Those emissions listed in *Schedule B: Emission Limits*, of this licence.
Specified Engineering Works	Engineering works listed in *Schedule E: Specified Engineering Works*, 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.
Temporary storage	In relation to waste is a period of less than six months as defined in the Waste Management Act 1996, as amended.
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.
VOC	**Volatile organic compound as defined in Article 3(45) of Directive 2010/75/EU.**
Waste	Any substance or object which the holder discards or intends or is required to discard.
Water Services Authority	Waterford 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 and 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 activity 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 activity, if managed, operated and controlled in accordance with this licence, will not have any adverse effect on the integrity of any of those sites.

The Agency has applied the Commission Implementing Decision of 10/08/2018, establishing Best Available Techniques (BAT) Conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for waste treatment as a reference when setting licence conditions.

The Agency accordingly proposes to grant a licence to Ormonde Organics Limited to carry on the activity listed in *Part I, Schedule of Activities Licensed*, subject to the conditions set out in *Part III*, *Conditions* such licence to take effect in lieu of Licence Register Number: W0287-01**.**

In reaching this decision the Agency has considered the documentation relating to the existing licence, Register Number: W0287-01; the review application, Register Number: W0287-02 and the supporting documentation received from the licensee; the submissions received; the Inspector's Report dated 07 December 2022; and has carried out an Environmental Impact Assessment and an Appropriate Assessment of the likely significant effects of the activity 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 activity on the environment, and adequately and accurately identifies, describes and assesses those effects. The assessment as reported in this document 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 this licence will not result in the contravention of any relevant environmental quality standards or cause environmental pollution.

Having regard to the examination of environmental information in the Inspector's Report, and in particular to the content of the Environmental Impact Assessment Report (EIAR) and supplementary information provided by the licensee, and the submissions from other third parties in the course of the application, it is considered that the potential significant direct and indirect effects of the activity on the environment are as follows:

- Emissions to air from odour;
- Emissions to air from combustion sources;
- Noise emissions;
- Accidental leakages or spills.

Having assessed those potential effects, I have concluded as follows:

- Emissions to air from odour sources will be mitigated through: operation of abatement in accordance with BAT, imposing emission limit values to ensure compliance with ground level concentration of odour at sensitive receptors and implementing monitoring, maintenance and control measures;
- Emissions to air from combustion sources will be mitigated through: imposing emission limit values to ensure compliance with ambient air quality standards and implementing monitoring, maintenance and control measures;
- Noise emissions will be mitigated through: imposing daytime, evening-time and night-time noise limits at noise-sensitive locations and implementing monitoring, maintenance and control measures; and
- Accidental leakages or spills will be mitigated through: the use of silt traps and oil separators, inspection and maintenance of bunds and tanks, and accident and emergency requirements.

Having regard to the effects (and interactions) identified, described and assessed throughout the Inspector's Report, it is considered that the monitoring, mitigation and preventative measures proposed will enable the activity to operate without causing environmental pollution, subject to compliance with this licence.

The conditions of this licence and the mitigation measures will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at Lower River Suir SAC (Site Code: 002137), Hugginstown Fen SAC (Site Code: 000404), and Comeragh Mountains SAC (Site Code: 001952).

The activity is 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 activity, 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 activity was required, and for this reason determined to require the licensee to submit a Natura Impact Statement.

This determination has been made having regard to the following: There is a hydrological connection to the Lower River Suir SAC, as the activity will involve the discharge of storm waters to the surface waters of the SAC.

The Agency has completed the Appropriate Assessment of potential impacts on these sites 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 activity, 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), Hugginstown Fen SAC (Site Code: 000404), and Comeragh Mountains SAC (Site Code: 001952), having regard to their conservation objectives and will not affect the preservation of these sites at favourable conservation status if carried out in accordance with this licence and the conditions attached hereto for the following reasons:

- The licence requires the licensee to discharge only uncontaminated storm water to a stormwater drain, prior to discharge to the River Suir. The storm water collection system includes a silt trap and oil interceptor, prior to discharge from a storm water retention tank fitted with a flow restrictor and shut-off valve at the outlet, to limit the flow to surface water to ensure that stormwater will not negatively impact on water quality, and ensure the continued protection of water dependent species;
- Daily visual inspections and proper maintenance of storm water discharges are provided for in the licence. The licence requires the licensee to establish suitable trigger levels for storm water discharges and a response programme to address exceedances. There are no process emissions to surface water from this installation;
- The licence requires that all tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Integrity of bunds and underground pipes are to be assessed every three years and maintenance carried out as required. Waste and materials shall be stored in designated areas, protected against spillage and leachate run-off;
- The licence requires the licensee to carry out a review of the firewater risk assessment, within nine months of the date of grant of the licence, to determine if the activity requires additional fire-water retention facilities;
- The licence specifies emission limit values for emissions to air from the installation, and air dispersion modelling has demonstrated that emissions which comply with these limits will not cause breaches of relevant air quality standards. Therefore, air emissions will not have a significant effect on the qualifying interests of any European sites;
- Given the lack of hydrological connectivity and the distance between the installation and the European sites Hugginstown Fen SAC (Site Code: 000404), and Comeragh Mountains SAC (Site Code: 001952), direct impacts on qualifying interests will not arise.

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Sites Lower River Suir SAC (Site Code: 002137), Hugginstown Fen SAC (Site Code: 000404), and Comeragh Mountains SAC (Site Code: 001952).

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 determine the review of the existing licence (W0287-01) granted to:

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

under Section 90(2) of the said Act to carry on the following activities:

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;

11.4(c) Notwithstanding clause (b), when the only waste treatment activity carried out is anaerobic digestion, the capacity threshold for that activity shall be 100 tonnes per day.

at Killowen, Portlaw, County Waterford, subject to the following twelve 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 this 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 The licensee shall carry on the licensed activity in accordance with the limitations 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 red on Drawing No. 02 of the application. Any reference in this licence to "installation" shall mean the area thus outlined in colour red. The licensed activity 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 approval of, the Agency.

1.5 The installation shall be controlled, operated and maintained, and emissions shall take place as set out in this licence. All programmes required to be carried out under the terms of this licence become part of this licence.

1.6 This licence is for the purpose of 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.

1.7 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.

1.8 This licence shall have effect in lieu of the licence granted on **13th October 2016** (Register No. W0287-01).

1.9 Waste Acceptance Hours and Hours of Operation

1.9.1 With the exception of emergencies, or as may be approved by the Agency, waste shall only be accepted at or dispatched from the installation between the hours of 0700 and 1900 Monday to Saturday inclusive.

1.9.2 Except for the biological treatment processes which may operate continuously, or as otherwise approved 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.

1.9.3 The installation shall not operate or accept/dispatch waste on Sundays or Bank Holidays without the approval of the Agency.

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 maintain and implement an Environmental Management System (EMS). 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 A statement of the commitment, leadership and accountability of management, including senior management for the implementation of an effective EMS.

2.2.2.2 An environmental policy, defined by Management, that includes a commitment to continuous improvement of the environmental performance of the installation.

2.2.2.3 Management and Reporting Structure and responsibility for environmental aspects, including for the planning and provision of financial and human resources to manage and implement the EMS.

2.2.2.4 An analysis of the organisation's regulatory and environmental obligations, including the potential risks to the environment from the activity.

2.2.2.5 The maintenance of an inventory of waste water and waste gas streams that incorporates all of the features listed in BAT 3 of CID 2018/1147.

2.2.2.6 Waste stream management using all of the techniques listed in BAT 2 of CID 2018/1147.

2.2.2.7 An accident management plan using all of the techniques listed in BAT 21 of CID 2018/1147

2.2.2.8 An odour management plan that incorporates all of the features listed in BAT 12 of CID 2018/1147.

2.2.2.9 The procedures required by this licence, including procedures for;

2.2.2.9.1 ensuring compliance with environmental legislation;

2.2.2.9.2 ensuring employee awareness of and involvement in complying with environmental legislation; and

2.2.2.9.2 checking performance and developing performance indicators by sectoral benchmarking on a regular basis, including for energy efficiency.

2.2.2.10 Schedule of Environmental Objectives and Targets

The licensee shall 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, as referred to in the conditions of this licence, including an evaluation of practicable options for:

(i) energy and resource efficiency;

(ii) the reduction in water consumption;

(iii) the use of cleaner technology, cleaner production;

(iv) odour and noise management;

(v) the prevention, reduction and minimisation of waste including waste reduction targets;

(vi) the impacts from eventual decommissioning of the installation;

(vii) a monitoring and measurement programme.

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.

2.2.2.11 Environmental Management Programme (EMP)

The licensee shall maintain and implement an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.10 above. The EMP shall include:

- designation of responsibility for targets;
- the means by which they may be achieved; and
- the time within which they may be achieved.

The EMP shall be reviewed annually.

A report on the programme, including the success in meeting agreed targets and an evaluation of non-conformities and associated corrective actions and the potential for further non-conformities to occur 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.

2.2.2.12 Documentation

(i) The licensee shall 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.

2.2.2.13 Corrective and Preventative Action

(i) The licensee shall 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.

2.2.2.14 Internal Audits

The licensee shall 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 this licence. Audit reports and records of the resultant corrective and preventative actions shall be maintained as part of the EMS in accordance with Condition 2.2.2.12 above.

2.2.2.15 Awareness, Training and Competence

The licensee shall 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.

2.2.2.16 Public Awareness and Communications Programme

2.2.2.16.1 The licensee shall 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.

2.2.2.16.2 The programme shall be approved by the Agency and a report on the programme shall be prepared and submitted to the Agency annually.

2.2.2.17 Maintenance Programme

The licensee shall maintain and implement a programme for 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.

2.2.2.18 Efficient Process Control

The licensee shall 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 ensure, at all times after the grant of this licence, that all infrastructure and all equipment required under this licence has been and is:

(i) installed;
(ii) commissioned;
(iii) present on site; and
(iv) maintained in full working order.

3.2 Where any condition of this licence specifies any later deadline for installation of any piece of infrastructure or equipment, Condition 3.1 of this licence shall apply as and from the deadline specified.

3.3 The licensee shall establish and maintain, for each component of the installation, all infrastructure referred to in this licence in advance of the commencement of the licensed activities in that component, or 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 this licence, shall be installed in accordance with the schedule submitted in the application.

3.4 The licensee shall have regard to the following when choosing and/or designing any new plant/infrastructure:

(i) energy efficiency; and

(ii) the environmental impact of its construction/installation, maintenance, operation and eventual decommissioning.

3.5 Installation Notice Board

(i) The licensee shall maintain 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 1200mm by 750mm. The notice board shall be maintained thereafter.

(ii) The board shall clearly show:

(i) the name and telephone number of the installation;
(ii) the normal hours of opening;
(iii) the normal hours of waste acceptance;
(iv) the name of the licence holder;
(v) an emergency out of hours contact telephone number;
(vi) this licence reference number; and
(vii) where environmental information relating to the installation can be obtained.

(iii) 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.

3.6 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

3.7 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.

3.8 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.

3.9 Tank, Container and Drum Storage Areas

3.9.1 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).

3.9.2 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.

3.9.3 All drainage from bunded areas shall be treated as contaminated unless it can be demonstrated to be otherwise.

3.9.4 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 6.13.

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

3.9.6 All tanks, containers and drums shall be labelled to clearly indicate their contents.

3.9.7 All bunds shall be uniquely identified and labelled at the bund.

3.9.8 Liquid waste inputs and 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 approved by the Agency, in order to avoid the emission of odorous head gases.

3.10 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.

3.11 Water metering and records

3.11.1 The licensee shall maintain a water meter on all water supplies serving the installation, prior to utilisation.

3.11.2 Records of water usage shall be maintained on site and a summary records report shall be submitted annually as part of the AER.

3.11.3 Daily records of water abstraction from the on-site well shall be kept during times of peak usage and should usage exceed $25m^3$ in any 24-hour period, the abstraction shall be registered with the Agency as per the European Union (Water Policy) (Abstractions Registration) Regulations 2018 S.I. 261 of 2018).

3.12 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 separator shall be in accordance with I.S. EN-858-2: 2003 (separator systems for light liquids).

3.13 Fire-water Retention

3.13.1 The licensee shall review and update the risk assessment to determine the retention requirements for fire water run-off from the installation. The risk assessment, and any subsequent reports or programmes, shall be completed in accordance with any guidelines issued by the Agency with regard to firewater retention.

3.13.2 The licensee shall submit the Firewater Risk Assessment Report based on the assessment in Condition 3.13.1 to the Agency for approval, within nine months of the date of grant of this licence.

3.13.3 The licensee shall implement the Firewater Risk Assessment Report as approved by the Agency under Condition 3.12.2, within the timeframes specified by the Agency.

3.14 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).

3.15 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 diffuse emissions.

3.16 Groundwater wells

3.16.1 All wellheads and groundwater monitoring boreholes at the installation shall be adequately protected to prevent contamination or physical damage

3.16.2 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).

3.16.3 **The licensee shall, within six months of date of grant of this licence, submit a proposal to the Agency for approval, for the installation of a new groundwater monitoring well within the site boundary.**

3.16.4 **The new groundwater monitoring well shall be installed within one year of date of grant of this licence.**

3.16.5 Any new groundwater 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, within six months from the date of grant of this licence.

3.17 The licensee shall maintain in a prominent location on the site a windsock, or other wind direction indicator, which shall be visible from the public roadway outside the site.

3.18 The licensee shall operate a weather monitoring station on the site at a location approved by the Agency, which records conditions of wind speed and wind direction.

3.19 Specified Engineering Works

3.19.1 The licensee shall submit proposals for all Specified Engineering Works, as specified in *Schedule D: Specified Engineering Works*, of this licence, to the Agency for its approval 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 approval of the Agency.

3.19.2 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.

3.19.3 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.

3.20 Installation Security

3.20.1 Security and stock-proof fencing and gates shall be maintained at the installation. Subject to the implementation of the Closure, Restoration and Aftercare Management Plan the requirement for such installation security may be removed.

3.20.2 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.

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

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

3.20.5 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.

3.21 Dust and Odour Control

The licensee shall maintain adequate measures for the control of dust and odour emissions, including fugitive dust emissions, from the installation. Installation of a dust and odour management system shall at a minimum include the following:

(i) dust curtains (or equivalent approved by the Agency) shall be maintained on the entry/exit points from the waste treatment building;

(ii) **fast action roller shutter doors shall be installed on all entry/exit points used by waste vehicles**;

(iii) all doors in this building shall be kept closed when not in use;

(iv) 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 as necessary or as may be specified by the Agency;

(v) the licensee shall 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.

(vi) **All biofilter abatement systems shall be covered and fitted with an exhaust stack to facilitate dispersion and allow monitoring of emissions to air, within twelve months of the date of grant of this licence.**

(vii) **The biofilter abatement system stacks shall have a minimum height of 15 metres above ground.**

3.22 Installation Roads and Site Surfaces

3.22.1 Effective site roads shall be provided and maintained to ensure the safe and nuisance free movement of vehicles within the installation.

3.22.2 The licensee shall provide and maintain an impermeable concrete surface in all areas of the installation used for the movement, holding, storage or processing of waste. The concrete surface shall be constructed to *Standard BS EN 1992-1-1:2004+A1:2004, as amended* or an alternative as approved by the Agency. The licensee shall remedy any defect in concrete surfaces within five working days.

3.23 Installation Office

3.23.1 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.

3.23.2 The licensee shall provide and maintain a method for electronic transfer of information at the installation.

3.24 Waste Inspection and Quarantine Areas

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

3.24.2 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.

3.25 Waste Treatment Infrastructure

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

(i) waste acceptance, inspection, storage, treatment and processing areas including anaerobic digesters, waste pre-treatment and post-treatment plant and associated equipment;

(ii) separate storage areas for all waste treatment outputs including any screened fractions;

(iii) Agricultural feedstock storage areas that meet the Department of Agriculture, Food and the Marine's current farm building and structures specifications;

(iv) leachate, digestate liquor and waste water management infrastructure;

(v) biogas handling, storage, treatment and combustion infrastructure;

(vi) air handling and odorous air treatment infrastructure.

3.25.2 Items of plant deemed critical to the efficient and adequate processing of waste at the installation (including among other things 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.

3.25.3 The odour control system shall be provided on the following basis:

(i) 100% duty capacity; and

(ii) 50% standby capacity.

3.25.4 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 licenced waste intake, as per *Schedule A.2 Waste Acceptance*, of this licence.

3.25.5 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.

3.25.6 If sludges/slurry are being accepted, the licensee shall ensure that an enclosed tank is provided for storage of sludge/slurry to ensure safe coupling systems for loading/unloading from road tankers.

3.26 Weighbridge and Wheel Cleaning

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

3.26.2 All waste arriving at or leaving the installation shall be weighed at the weighbridge onsite.

3.26.3 The wheel cleaner shall be used by all vehicles leaving the installation, as required, to ensure that no waste water, waste or storm water is carried off-site. All water from the wheel cleaning area shall be collected for appropriate treatment, reuse or disposal.

3.26.4 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.

3.27 The licensee shall provide and use adequate lighting during the operation of the installation in hours of darkness.

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 set out in the Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses (p.e. < 10), published by the Environmental Protection Agency.

3.29 **All sanitary effluent shall be removed from the installation using authorised waste contractors, unless an alternative treatment for sanitary effluent is approved by the Agency.**

3.30 Pipework

3.30.1 The licensee shall label all pipework so as to differentiate between fuels, process flows and wastewater. The labelling shall include the direction of flow.

3.30.2 The integrity of underground liquid feedstock pipes shall be monitored by an automatic leak detection system.

3.30.3 All connections between vessels shall be capable of being closed by valves.

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

(i) For any parameter where, due to sampling/analytical limitations, a 30-minute sample is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.

(ii) For flow, no hourly or daily mean value, calculated on the basis of appropriate spot readings, shall exceed the relevant limit value.

(iii) 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; **15%** oxygen for liquid and gas fuels.

4.2.3 For odour monitoring:

Temperature 293K, Pressure 101.3 kPa, oxygen and moisture corrections as per relevant process (combustion / non-combustion sources).

4.3 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.

4.4 Compost and Digestate Quality Test Results

The compost/digestate quality standard set out in *Schedule F: 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 Noise

Noise from the installation shall not give rise to sound pressure levels measured at the noise-sensitive locations (NSLs) which exceed the limit value(s).

4.6 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 this licence.

Condition 5. Emissions

5.1 Emissions may be made from the specified emission points set out in *Schedule B: Emission Limits*, of this licence subject to compliance with the Emission Limit Values specified in that Schedule.

5.1.1 Uncontaminated storm water may be discharged to surface water.

5.1.2 Uncontaminated storm water may be emitted to groundwater or to soil.

5.1.3 Minor, diffuse and potential emissions may be emitted to air as specified in the application, or as approved by the Agency under Condition 1 of this licence.

5.2 Notwithstanding the requirements of Condition 5.1 above, there shall be no other emissions from the installation.

5.3 No emissions, including odours and dust, 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.

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

- Vermin
- Birds
- Flies
- Mud
- 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.

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

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 a test programme for any new abatement equipment installed to abate emissions.

6.1.2 The programme 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;

(ii) assess the performance of any monitors on the abatement system and establish a maintenance and calibration programme for each monitor; and

(iii) be prepared in accordance with the guidance published by the Agency, '*Odour Emissions Guidance Note (AG9)*', as may be amended or replaced.

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, calibrations and control techniques as set out below and as in accordance with *Schedule C: Control and Monitoring,* of this licence.

6.2.1 Sampling and analysis shall be undertaken by competent staff in accordance with documented operating procedures. Unless otherwise approved by the Agency, sampling and analysis of emissions to atmosphere shall be carried out by ISO 17025 accredited persons/organisations, with accreditation for the relevant scope of sampling and analysis, and in accordance with the Agency's air monitoring policy.

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 appropriate control standards with evaluation of test responses.

6.2.4 Where any analysis is sub-contracted, it shall be outsourced 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, which 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 approved 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 approved by the Agency.

6.5 Monitoring and analysis equipment shall be installed, operated and maintained as necessary so that all monitoring results accurately reflect any emission, discharge or parameter specified in this licence.

6.6 The licensee shall ensure that groundwater monitoring well sampling equipment is available or installed on-site at the installation 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.

6.8 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended as required or approved by the Agency following evaluation of test results.

6.9 The licensee shall prepare and implement a programme, to the satisfaction of the Agency, for the identification and reduction of diffuse emissions using an appropriate combination of best available techniques listed in BAT 14 of CID 2018/1147. This programme shall be included in the Environmental Management Programme.

6.10 The integrity and water tightness of all tanks, bunding structures, containers and underground pipes and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee.

6.10.1 In the case of new bunding structures, tanks, underground pipelines and containers installed on site, the testing for integrity and water tightness shall be undertaken in advance of utilisation;

6.10.2 testing shall be carried out by a suitably qualified and experienced person;

6.10.3 testing shall be carried out in accordance with any guidance published by the Agency;

6.10.4 testing shall be carried out at least once every three years thereafter and reported to the Agency on each occasion;

6.10.5 any repairs required to ensure the integrity and water tightness of tanks, bunding structures, containers and underground pipes shall be carried out as soon as practicable; and

6.10.6 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 storm water drainage system (i.e., gullies, manholes, any visible drainage conduits and such other aspects as may be required by the Agency), bunds, silt traps and oil separators shall be inspected weekly, desludged as necessary, and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal. The licensee shall maintain a drainage map on site. The drainage map shall be reviewed annually and updated as necessary.

6.12 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 maintained.

6.13 Storm Water

6.13.1 A visual examination of the storm water discharges shall be carried out daily. A log of such inspections, shall be maintained.

6.13.2 Trigger Values

6.13.2.1 The licensee shall, within three months of the date of grant of this licence, establish suitable trigger levels for TOC, ammonia, and suspended solids in storm water discharges to the satisfaction of the Agency. The trigger values shall be established in accordance with the methods outlined in the Environmental Protection Agency's "*Guidance on the setting of trigger values for storm water discharges to off-site surface waters at EPA IPPC and Waste licensed facilities"*.

6.13.2.2 The trigger values may be revised, to the satisfaction of the Agency, following evaluation of appropriate storm water monitoring data in accordance with the methods outlined in the Environmental Protection Agency's "*Guidance on the setting of trigger values for storm water discharges to off-site surface waters at EPA IPPC and Waste licensed facilities*".

6.13.2.3 The licensee shall establish, maintain and implement a response programme to address any exceedance of the trigger values such that storm

waters exceeding these levels will be diverted for retention and suitable disposal.

6.14 Ground Water

Within eighteen months of the date of this licence, the licensee shall, in line with the criteria set out in the *Guidance on the Authorisation of Discharges to Groundwater*, published by the Environmental Protection Agency, review the most relevant hydrogeological assessment report for the installation or where relevant, arrange for an assessment of the installation, by an appropriately qualified consultant/professional, to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010, S.I. No 9 of 2010. A report on the review or assessment report with recommendations shall be submitted to the Agency for approval. Further to the hydrogeological review or assessment, any actions (including the setting of groundwater compliance values, if appropriate) required to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010, shall be implemented within a period to be approved by the Agency.

6.15 Noise

6.15.1 The licensee shall carry out a noise survey of the site operations annually. 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.

6.15.2 The licensee shall use one or a combination of the techniques listed in BAT 18 of CID 2018/1147, in order to minimise noise emissions.

6.15.3 Noise Management Plan

6.15.3.1 The licensee shall prepare, maintain and implement, to the satisfaction of the Agency, a Noise Management Plan in line with the elements listed in BAT 17 of CID 2018/1147.

6.15.3.2 The plan shall be submitted within six months of the date of grant of this licence.

6.15.3.3 The plan shall outline noise reduction and abatement measures.

6.15.3.4 The plan to reduce noise emissions should include the following mitigation measures: abatement and enclosure of operations, processes and equipment giving rise to exceedances of noise limit values measured at noise sensitive locations.

6.15.3.5 The plan shall be prepared in accordance with the Agency's *Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4).*

6.15.3.6 The plan shall be implemented within twelve months of the date of grant of this licence.

6.15.3.7 The plan shall be reviewed annually.

6.16 Odour

6.16.1 The licensee shall carry out a daily odour survey of the site operations.

6.16.2 The survey programme shall be undertaken in accordance with the methodology specified in the '*Air Guidance Note 5 (AG5) Odour Impact Assessment Guidance for EPA Licensed Sites'* as published by the Agency.

6.17 Odour Management Plan

6.17.1 The licensee shall prepare, maintain and implement, to the satisfaction of the Agency, an Odour Management Plan, in line with the elements listed in BAT 12 of CID 2018/1147.

6.17.2 The plan shall be submitted within twelve months of the date of grant of this licence.

6.17.3 The plan shall outline odour reduction and abatement measures.

6.17.4 The plan shall include measures to ensure all potential sources of odour at the installation are identified and potentially odorous emissions and nuisance caused by odour are prevented. The plan shall as a minimum address the composting building, the biofilters, and the storage and handling of wastes and other materials with a potential for causing odour.

6.17.5 The plan shall be prepared in accordance with the Agency's Odour Emissions Guidance Note (Air Guidance Note AG9).

6.17.6 The plan shall be reviewed annually.

6.18 Pollutant Release and Transfer Register (PRTR)

The licensee shall submit a PRTR data report for the site. The pollutants and/or wastes to be included in the PRTR shall be determined by reference to EC Regulations No. 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register. The PRTR shall be prepared in accordance with any relevant Agency guidance and shall be submitted electronically in the format specified by the Agency.

6.19 The licensee shall maintain a Data Management System for collation, archiving, assessing and graphically presenting the monitoring data generated as a result of this licence.

6.20 Groundwater and Soil Monitoring

The licensee shall carry out monitoring for relevant hazardous substances in soil and groundwater at the site of the installation. The substances for monitoring shall be identified by the licensee by undertaking a risk-based assessment. The risk assessment, sampling and monitoring shall be carried out in accordance with any guidance published by the Agency. The licensee shall have regard to the '*Classification of Hazardous and Non-Hazardous Substances in Groundwater'* as published by the Agency

6.21 Dust Control

In dry weather, site roads and other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.

6.22 Operational Controls

6.22.1 The floors of the waste treatment buildings shall be cleaned on a weekly basis.

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

6.22.3 Scavenging shall not be permitted at the installation.

6.22.4 Biogas that cannot be utilised, due to routine servicing of the gas engines, shall be automatically routed to the flare stack for treatment.

6.22.5 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.

6.22.6 There shall be no mixing of:

(i) Organic fines (and other feedstocks not conductive to the production of high quality compost and digestate suitable for direct land application), or
(ii) Biostabilised residual waste, with
(iii) 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
(iv) Compost and digestate that complies with the quality standard set out in *Schedule F: Standards for Compost and Digestate Quality* of this licence or an alternative quality standard

6.22.7 There shall be no movement or transfer of digestate and composting liquors between processes for the treatment of:

(i) Waste and feedstock intended to be used in the production of high-quality compost and digestate suitable for direct land application, and
(ii) Organic fines and other waste and feedstocks not conductive to the production of high-quality compost and digestate 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.

6.23 Nuisance Monitoring

The licensee shall, daily, inspect the installation and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, odours, mud and dust. The licensee shall maintain a record of all nuisance inspections.

6.24 Litter Control

6.24.1 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 10:00 am of the next working day after such waste is discovered.

6.24.2 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the installation are appropriately covered.

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 as required by the Agency. The audit shall be carried out in accordance with the guidance published by the Agency, "*Guidance Note on Energy Efficiency Auditing*".

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 In order to use energy efficiently, the licensee shall use both of the techniques listed in BAT 23 of CID 2018/1147.

7.4 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible, using an appropriate combination of the techniques listed in BAT 19 of CID 2018/1147. Reductions in water usage shall be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

7.5 The licensee shall monitor the consumption of water, energy and raw materials, as well as the generation of residues and wastewater annually, in accordance with the techniques listed in BAT 11 of CID 2018/1147.

7.6 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 under Condition 2 above.

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 sent off-site for recovery or disposal

8.3.1 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor.

8.3.2 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.

8.3.3 Waste sent off-site for recovery or disposal shall be transferred only to an appropriate installation/facility.

8.4 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.

8.5 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off.

8.6 Waste and materials shall be stored in designated areas, protected as may be appropriate against spillage and leachate run-off. The waste and materials shall be clearly labelled and appropriately segregated.

8.7 Waste for disposal/recovery off-site shall be analysed in accordance with *Schedule C: Control and Monitoring,* of this licence.

8.8 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.

8.9 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.

8.10 All waste reception, storage and processing shall be carried out inside a building or in enclosed vessels. No waste shall be stored or handled outdoors.

8.11 **The licensee shall establish and implement waste handling and transfer procedures in accordance with BAT 5 of CID 2018/1147.**

8.12 Waste Acceptance and Characterisation Procedures

8.12.1 The licensee shall 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.

8.12.2 Waste shall be accepted at the installation only from known waste producers or new waste producers subject to initial waste profiling and basic characterisation offsite. 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.

8.12.3 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 of excluded, issued under the Waste Management Act 1996 as amended. Copies of these waste collection permits shall be maintained at the installation.

8.12.4 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, weighed, documented and directed to an appropriate area within the installation. Each load of waste arriving at the installation shall be inspected prior to and during unloading. Only after such inspections shall the waste be processed for disposal or recovery.

8.12.5 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

8.12.6 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 a designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine area to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition.

8.12.7 A record of all inspections of incoming waste loads shall be maintained.

8.12.8 Each container of waste accepted at the installation shall, as part of the waste tracking system, be labelled with, at least, a unique identifier, its date of arrival and List of Waste code.

8.12.9 The licensee shall maintain a list of the List of Waste codes that are authorised for acceptance at the installation. New waste codes may be added to the list, if approved by the Agency.

8.12.10 No hazardous waste shall be accepted at the installation.

8.13 Waste and Materials Storage Plan

8.13.1 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, and other materials and waste water stored and held at the installation.

8.13.2 The Waste and Materials Storage Plan shall be adequate to ensure compliance with all conditions of this licence.

8.13.3 The Waste and Materials Storage Plan shall be to the satisfaction of the Agency at all times.

8.13.4 The Waste and Materials Storage Plan shall incorporate:

(i) the techniques listed in BAT 4 of CID 2018/1147.

(ii) the recommendations of the Fire Risk Assessment required by Condition 9.5 of this licence;

(iii) a limit on the total quantity of waste to be stored at the installation at any one time;

(iv) maximum stockpile sizes in designated storage areas or vessels including maximum volume, height, length, width and area, and minimum separation distances;

(v) a limit on the maximum storage or holding period for each type of waste in designated storage areas or vessels;

(vi) limitations, as may be necessary, on waste storage arrangements to be used to prevent odours arising;

(vii) 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);

(viii) details of the drainage system super-imposed on the above drawing or plan; and

(ix) a designated fire quarantine area.

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

8.13.6 Waste accepted or generated at the installation shall be stored or held only in designated areas or vessels that have been identified in the Waste and Materials Storage Plan.

8.13.7 All designated areas or vessels for storage or holding of waste and waste water shall be:

(i) clearly labelled;

(ii) appropriately segregated; and

(iii) visibly or physically delineated by walls, dividers, painted lines or marks on the ground or other methods acceptable to the Agency.

8.13.8 The Emergency Response Procedure as required under Condition 9 of this licence shall include an up-to-date copy of the Waste and Materials Storage Plan.

8.13.9 The Waste and Material Storage Plan shall include in its scope any material that was waste but has achieved end-of-waste status.

8.14 Quality of Compost/Digestate

8.14.1 Compost/Digestate shall comply with the quality standard, as set out in *Schedule F: Standards for* Compost/Digestate *Quality*, of this licence, or an alternative quality standard. An alternative quality standard for Compost/Digestate may be used, subject to the approval of the Agency, and in compliance with the EU fertiliser Regulation, as appropriate. The use of any approved alternative quality standard for Compost/Digestate shall not cause direct or indirect adverse impacts on human animal or plant health and shall not cause environmental pollution.

8.14.2 Treated waste that fails to meet the quality standard for Compost/Digestate, as set out in the Tables F.1 and F.2 Maximum Respiration Activity, Table F.4 Pathogenic Organism Content Limits, Table F.5 Impurity Content Limits and Table F.6 Organic Matter Content Limit of *Schedule F: Standards for Compost/Digestate Quality*, of this licence, may be reused in the process or treated as waste.

8.14.3 Treated bio-waste that fails to meet the quality standard for compost/digestate as set out in Table F.3 Maximum Metal Concentration Limits of *Schedule F: Standards for* Compost/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.

8.14.4 Compost/Digestate 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.

8.14.5 Where an alternative Compost/Digestate quality standard is approved by the Agency, in accordance with Condition 8.14.1 above, the Compost/Digestate monitoring programme associated with the approved alternative Compost/Digestate quality standard may be employed in lieu of the Compost/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.

8.14.6 In the event of failure to achieve a quality standard parameter for Compost/Digestate as set out in *Schedule F: Standards for Compost/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 composting process.

(ii) Subsequent batches of treated biowaste shall be tested against all parameters in *Schedule F: Standards for Compost/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 revalidated and deemed to comply with the requirements of this condition.

(iii) A test failure shall be treated as an incident.

8.15 Biogas treatment

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

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

8.15.3 **The flare shall only be used for safety reasons, or for non-routine operating conditions.**

8.15.4 **The use of the flare unit shall be automatically logged and recorded. The quantity of biogas sent to the flare shall be monitored continuously in accordance with BAT 16.**

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

8.16 Compost/Digestate Monitoring

8.16.1 Compost/Digestate quality monitoring shall be undertaken to demonstrate compliance with the quality standard as set out in *Schedule F: Standards for* Compost/Digestate *Quality*, of this licence.

8.16.2 Compost/Digestate analysis shall be carried out at the frequency specified below, unless otherwise approved or instructed by the Agency.

8.16.2.1 Every six months where more than 500 and up to 1,000 tonnes of compost/digestate is produced per year.

8.16.2.2 At intervals of at least every 1,000 tonnes of compost/digestate produced or every 3 months, whichever comes first, where more than 1,000 and up to 10,000 tonnes of compost/digestate is produced per year.

8.16.2.3 Every month where more than 10,000 tonnes of compost/digestate is produced per year.

8.16.3 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.

8.17 Outputs, other than quality compost/digestate, of biological treatment.

8.17.1 Treated material resulting from the treatment of:

(i) Organic fines,
(ii) Municipal waste, or
(iii) Other feedstocks not conducive to the production of high-quality Compost/Digestate suitable for direct land application,

shall be classified and handled as waste.

8.17.2 Organic fines shall only be used to make bio-stabilised residual waste.

8.17.3 Bio-stabilised residual waste shall be treated as waste and shall be dispatched only for recovery or disposal at a landfill facility unless otherwise approved by the Agency.

8.17.4 In the case of bio-stabilised residual waste, stabilisation means the reduction of the decomposition properties of the waste to such an extent that offensive odours are minimised and the respiration activity after four days is <7mg O_2/g DM.

8.18 The licensee shall record the movement of all compost/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.

8.19 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 bio-stabilised residual waste, biodried waste, municipal waste or treated municipal waste, its biodegradable content.

8.20 Unless approved 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.

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 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 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; and

(vi) notify the Agency as required by Condition 11.3 of this licence.

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 at the installation shall be transferred directly to an alternative appropriate 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.

9.4.3 No waste shall be burnt within the boundaries of the installation. A fire at the installation shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

9.5 The licensee shall arrange every three years or as directed by the Agency, for the completion, by an independent and appropriately 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 any guidelines issued by the Agency with regard to fire risk assessment. A report on the fire risk assessment shall be prepared and notified to the Agency, in accordance with Condition 11.13 of this licence. Any recommendations in the fire risk assessment shall be implemented by the licensee.

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

Condition 10. Closure, Restoration and Aftercare 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. A final validation report to include a certificate of completion to demonstrate there is no continuing risk to the environment shall be submitted to the Agency within three months of termination or planned cessation of the activity.

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 submit the reports, proposals and submissions required by this licence by the deadlines specified. The licensee shall not be in compliance with the requirements of this condition unless and until it has submitted every report, proposal and submission, the deadline for which has passed.

11.2 The licensee shall carry out every action required by the Agency, and arising out of such reports, proposals or submissions, by such deadline as the Agency may specify. The licensee shall not be in compliance with the requirements of this condition unless and until it has carried out every such action.

11.3 The licensee shall notify the Agency, in a format as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:

(i) an incident or accident as defined by the glossary;

(ii) any release of environmental significance to atmosphere from any potential emissions point including bypasses; or

(iii) any breach of one or more of the conditions attached to this licence.

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. All details required to be communicated must be in accordance with any guidance provided by the Agency.

11.4 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 / Department of Agriculture, Food and the Marine in the case of discharges to receiving waters.

(ii) Irish Water and other groups responsible for the downstream abstraction of drinking water, in the case of any incident where the discharges have been identified as upstream of a drinking water abstraction point.

(iii) The local authority, in the case of discharges to designated bathing waters.

11.5 The licensee shall make a record of any notification made under Condition 11.3 above. 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, the record shall include measures to restore compliance.

11.6 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.

11.7 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.

11.8 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 EIA documentation referenced in this licence.

This documentation shall be available to the Agency for inspection at all reasonable times.

11.9 The licensee shall submit to the Agency annually, or as otherwise approved by the Agency,

11.9.1 An AER covering the previous calendar year, which shall be;

(i) to the satisfaction of the Agency and include as a minimum the information specified in *Schedule D: Annual Environmental Report*, of this licence;

(ii) prepared in accordance with any relevant guidelines issued by the Agency; and

(iii) submitted by the 31st March of each year,

11.9.2 The results of all emission monitoring carried out in accordance with the requirements of this licence; including an assessment and interpretation of the results.

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 and Monitoring*, of this licence;

(ix) the tonnage and LoW Code for the waste materials recovered/disposed on-site; and

(x) any other records as may be specified by the Agency.

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/waste collection permit number);

(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;

(vii) the waste licence or waste permit register number (if appropriate);

(viii) a description of the waste including the associated LoW codes;

(ix) the quantity of the waste, recorded in tonnes;

(x) details of the treatment(s) on-site and prior to arrival to which the waste has been subjected;

(xi) whether the waste is for disposal or recovery and if recovery for what purpose;

(xii) the name of the person checking the load;

(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, including waste licence and waste permit register number of the facility; and

(xiv) where applicable, a consignment note number (including transfrontier shipment notification and movement/tracking form numbers, as appropriate).

11.12 The licensee shall submit report(s) electronically as required by the conditions of this licence to the Agency.

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

11.14 Waste Recovery Reports

The licensee shall as part of the AER submit a report on the contribution by this facility to the achievement of the recovery targets and strategy stated in national and European Union waste policies and shall include the following:

(i) the recovery/treatment of biowaste (including contribution of facility to the pre-treatment targets in the EU Landfill Directive); and

(ii) the recovery of energy through biogas combustion.

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 **€12,112**, 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 to the 31st day of December, and shall be paid to the Agency within one month from the date of grant of this 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 Agency may amend this licence in accordance with Section 96 of the Environmental Protection Agency Act 1992 as amended to require, or not require as the case may be, the putting in place of a financial provision to address liabilities for CRAMP and/or Environmental Liabilities Risk Assessment.

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

SCHEDULE A: Limitations

A.1 Limitations on the installation

The following waste related processes are authorised:

(i) Composting of bio-waste, green waste, and biodegradable waste, and associated processes including:

- waste pre-treatment, and preparation for composting;
- storage of waste and compost;
- storage of waste including the outputs of biological treatment; and
- processes for the management and mitigation of environmental emissions.

(ii) Anaerobic digestion of waste and feedstock, and associated processes including:

- waste pre-treatment and preparation for anaerobic digestion;
- digestate treatment;
- biogas combustion in combined heat and power engines 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 approved in advance with the Agency.

A.2 Waste Acceptance

Table A.2 Waste Categories and Quantities

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]	**List of Waste Codes** [Note 2]	**Maximum (Tonnes per Calendar Year)**
Non-hazardous agricultural, municipal, commercial, and industrial source separated waste and non-hazardous sludges, including sludges from industrial and municipal waste water treatment plants that is conducive to treatment by composting or anaerobic digestion and the generation of high quality digestate in accordance with *Schedule F* of this licence.	02 02 03 02 02 04 02 03 04 02 03 99 02 05 01 02 05 02 02 06 01 02 06 03 02 07 01 02 07 04 02 07 05 07 05 12 19 08 02 19 08 05 19 09 02 19 12 07 20 01 08 20 01 25 20 02 02	**80,000**

Note 1. Any proposals to accept other compatible non-hazardous waste types must be approved 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 or anaerobic digestion.

SCHEDULE B: Emission Limits

B.1 Emissions to Air

B.1.1 Emission Limit Value for Biogas combustion

Emission Point Reference No: AEP-1 CHP Gas Plant Engine
AEP-2 CHP Gas Plant Engine
Location: External yard area
Volume to be emitted: Maximum rate per hour (per engine): **8,500 m^3**
Minimum discharge height: **16 m** above ground

Parameter	Emission Limit Value Until 31st December 2029	Emission Limit Value From 1st January 2030
Nitrogen oxides (as NO_2)	500	**190**
Sulphur dioxide (as SO_2)	300	**60**
Carbon monoxide	1,400	1,400
Total VOCs	1,000	1,000
Total non-methane VOCs	50	50

Emission Point Reference No: AEP-3 Proposed CHP Gas Plant Engine
Location: To be approved with the Agency

Volume to be emitted: Maximum rate per hour (per engine): **8,500 m^3**
Minimum discharge height: **16 m a**bove ground

Parameter	Emission Limit Value
Nitrogen oxides (as NO_2)	**190**
Sulphur dioxide (as SO_2)	**40**
Carbon monoxide	1,400
Total VOCs	1,000
Total non-methane VOCs	50

B.1.2 Emission Limit Value for Biofilters

Emission Point Reference No: AEP-5 Biofilter
Location: Composting building
Volume to be emitted: Maximum rate per hour: **40,000 m^3**
Minimum discharge height: **15 m** above ground

Parameter	Emission Limit Value
Odour	1,000 OuE/m^3
Ammonia (NH_3)	**20 mg/m^3**

Emission Point Reference No: AEP-7 Biofilter AD Waste Reception Building
Location: Waste Reception Building
Volume to be emitted: Maximum rate per hour: **40,000 m^3**
Minimum discharge height: **15 m** above ground

Parameter	Emission Limit Value
Odour	1,000 OuE/m^3
Ammonia (NH_3)	**20 mg/m^3**

Emission Point Reference No: AEP-8 Biofilter
Location: Pasteurisation Building
Volume to be emitted: Maximum rate per hour: **10,000 m^3**
Minimum discharge height: **15 m** above ground

Parameter	Emission Limit Value
Odour	700 OuE/m^3
Ammonia (NH_3)	**20 mg/m^3**

Emission Point Reference No: **AEP-9 Proposed Biofilter**
Location: **New AD building**
Volume to be emitted: Maximum rate per hour: 10,000 m^3
Minimum discharge height: 15 m above ground

Parameter	Emission Limit Value
Odour	**1,000 OuE/m^3**
Ammonia (NH_3)	**20 mg/m^3**

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

Daytime dB $L_{Ar,T}$ (30 minutes)	**Evening time dB $L_{Ar,T}$ (30 minutes)**	**Night-time dB $L_{Aeq,T}$ (30 minutes) Note 1**
55	50	45

Note 1: During night time hours, there shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise-sensitive location.

B.5 *Dust Deposition Limits*

Locations: AD1, AD2, AD3, and AD4,
and any other located as approved by the Agency.

Parameter	**Limit Value Note 1**
Total dust deposition	350 mg/m^2/day

Note 1: 30-day composite sample, with the results expressed as mg/m^2/day.

SCHEDULE C: Control and Monitoring

C.1.1. Control of Emissions to Air

Emission Point Reference No.: AEP-1 CHP Gas Plant Engine
AEP-2 CHP Gas Plant Engine
AEP-3 Proposed CHP Gas Plant Engine

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
Internal combustion stability	Continuous stability monitoring	Frequency control system
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

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.: AEP-4 Standby biogas flare
Description of Treatment: Biogas Combustion

Control Parameter	Monitoring	Key Equipment[Note 1 & 2]
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.
Note 2: The flare unit shall be of an enclosed type design, and thecombustion air supply shall be controlled to achieve a minimum temperature of 900°C at the outlet, with 0.3 seconds residence time.

Emission Point Reference No: AEP-5 Biofilter
AEP-7 Biofilter
AEP-8 Biofilter
AEP-9 Proposed Biofilter

Description of Treatment: Acid scrubber
Biofiltration

Control Parameter	Monitoring	Key Equipment [Note 1]
Air Management and Treatment		
Air extraction	Continuous with alarm/call-out	Pumps/ engines Pressure gauges
Acid scrubbing of air from composting process	Daily visual check of flow Daily visual check of pressure drop	Flow and level meters Pressure gauges
Biofilter		
Ammonia **Hydrogen sulphide** **Mercaptans** **Amines**	Monthly (at inlet and outlet)	Colorimetric indicator tubes [Note2]
Bed Media [Note 3]		
Condition and depth of bed media	Daily	Visual inspection
Moisture content	Monthly	Standard method
pH	Bi-annually	Standard method
Total viable counts	Bi-annually	Standard method
General		
Fan	Daily visual check	System is operational
Negative pressure across biofilter	Monthly	Air current tubes SCADA control system
Effective depth of biofilter and uniform flow pattern	Bi-annually	Physical measurement
Residence time of gas in biofilter in the range 30-60 seconds	Bi-annually	Gas flow measurement

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 approved 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.

C.1.2. Monitoring of Emissions to Air

Emission Point Reference No.: AEP-1 CHP Gas Plant Engine
AEP-2 CHP Gas Plant Engine
AEP-3 Proposed CHP Gas Plant Engine

Parameter	Monitoring Frequency	Analysis Method/Technique
Flow	Quarterly	Standard Method
Nitrogen oxides (as NO_2)	Quarterly	Standard Method
Sulphur dioxide (as SO_2)	Quarterly	Standard Method
Carbon monoxide	Quarterly	Standard Method
Hydrogen sulphide	Quarterly	Standard Method
Total VOCs	Quarterly	Standard Method
Total non-methane VOCs	Quarterly	Standard Method

Emission Point Reference No.: AEP-5 Biofilter
AEP-7 Biofilter
AEP-8 Biofilter
AEP-9 Proposed Biofilter

Parameter	Monitoring Frequency	Analysis Method/Technique
Flow	Quarterly	Standard Method
Odour	Quarterly	Standard Method
Ammonia (NH_3)	Quarterly	Standard Method

Emission Point Reference No.: A3-1 – Biogas Upgrade Unit

Parameter	Monitoring Frequency	Analysis Method/Technique
Carbon dioxide	Annually	Standard Method
Total VOCs	Annually	Standard Method

C.2 Monitoring of Biological Treatment Processes

Parameter	Monitoring Frequency	Monitoring equipment/method
Composting		
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		
Temperature	Temperature	Temperature
pH in digesters	pH in digesters	pH in digesters
Pressure relief valve status (open/closed)	Continuous on each valve	Event and time recorder
Biogas flow	Continuous	Event and time recorder
Biogas pressure in digester system	Continuous	Flow meter and recorder
Biogas pressure in storage system	Continuous	Pressure gauge and recorder
Biogas pressure in CHP and flare system	Continuous	Pressure gauge and recorder
CHP runtime	Continuous	Pressure gauge and 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):		Probe with recorder
CH_4	Continuous	Probe with recorder
CO_2	Continuous	Probe with recorder
Total halogenated hydrocarbons	Monthly	To be approved
Sulphur compounds	Monthly	To be approved
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.2.1. Control of Emissions to Water

There shall be no emissions to water of environmental significance.

C.2.2. Monitoring of Emissions to Water

There shall be no emissions to water of environmental significance.

C.2.3. Monitoring of Storm Water Discharges

Emission Point Reference No: SW1

Parameter	Monitoring Frequency	Analysis Method/Technique Note 1
pH	Quarterly	Standard method
TOC	Quarterly	Standard method
Suspended Solids	Quarterly	Standard method
Mineral Oil	Quarterly	Standard method
Sulphate	Quarterly	Standard method
Total Ammonia	Quarterly	Standard method
Total Nitrogen	Quarterly	Standard method
Conductivity	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.3.1. Control of Emissions to Sewer

There shall be no process effluent emissions to sewer.

C.3.2. Monitoring of Emissions to Sewer

There shall be no process effluent emissions to Sewer.

C.4. Noise Monitoring

Noise monitoring at NSL1, and NSL2, and any other noise sensitive locations as approved or required by the Agency.

Period	Minimum Survey Duration
Daytime	A minimum of 3 sampling periods at each noise monitoring location **Note 1**
Evening-time	A minimum of 1 sampling period at each noise monitoring location.
Night-time **Note 2**	A minimum of 2 sampling periods at each noise monitoring location.

Note 1: 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.

Note 2: Night-time measurements should be made between 2300hrs and 0400hrs, Sunday to Thursday, with 2300hrs being the preferred start time.

C.5 Ambient Monitoring

C.5.1 Ambient monitoring for dust and bioaerosols

Monitoring Location:

Dust - AD1, AD2, AD3, and AD4,
and any other location as approved by the Agency.

Micro-organisms – at upwind and downwind locations to be approved by the Agency, and 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 approved by the Agency.

C.5.2 Groundwater Monitoring

Location:

GW-1, GW-2, a new well in accordance with Condition 3.16.4 and any alternative monitoring locations as approved or required by the Agency.

Parameter	Monitoring Frequency	Analysis Method/Techniques
Ph	Biannually	pH electrode/meter
Suspended solids	Biannually	Standard Method
TOC	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
Relevant Hazardous Substances **Note1**	Biannually	Standard Method

Note 1: Groundwater monitoring for relevant hazardous substances shall be in accordance with Condition 6.20 of this licence.

C.5.3 Soil Monitoring

Location: To be approved by the Agency

Parameter	Monitoring Frequency	Analysis Method/Techniques
Relevant hazardous Substances [Note 1]	Every ten years	Standard Method

Note 1: Soil monitoring for relevant hazardous substances shall be in accordance with Condition 6.20 of this licence.

C.6 Waste, compost, and digestate testing

Parameter	Monitoring Frequency	Analysis Method /Techniques
Compost/Digestate	As per conditions of this licence	Standard method
Municipal waste dispatched to landfill: **Biodegradable Municipal Waste (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
Inlet and outlet flow of anaerobic digesters: TOC, COD, Nitrate, Phosphate, Chloride	Weekly	Standard method
Digester contents: **- Volatile fatty acids** **- Alkalinity**	Daily	Standard method

SCHEDULE D: Annual Environmental Report

Annual Environmental Report Content [Note 1 & 2]
Environment Management objectives and targets summary.
Energy and water use and generation summary.
Complaints summary.
Incidents Summary.
Emissions Summary.
Waste Management Summary.
Any other items specified in the licence conditions or by the Agency.

Note 1: Content may be revised subject to the agreement of the Agency.
Note 2: The AER shall be completed in accordance with current Agency guidance.

SCHEDULE E: Specified Engineering Works

Specified Engineering Works
Installation of new equipment for treatment of emissions to air.
Construction of new buildings, roofs or enclosures.
Any other works notified in writing by the Agency.

Schedule F: Standards for Compost and Digestate Quality

Compost and Digestate Quality

The following criteria are deemed a quality standard for the use of compost 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, NH_4-N, NO_3-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.

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

1. Stability

Table F.1- Maximum Respiration Activity for Compost

Parameter	Quality Limit
Stability	Oxygen Uptake Rate (OUR), ≤ 13 mmol O_2/kg organic solids/hour

Table F.2 - Maximum Respiration Activity for Digestate

Parameter	Quality Limit [Note 1]
Stability	Residual Biogas Potential (RBP), ≤ 0.45 l biogas/g volatile solids

Note 1: Assessment of RBP test pass or fails shall use the average of the triplicate RBP values that each sample test generates.

2. Metals [Note 1, 2 & 3]

Table F.3 – Maximum Metal Concentration Limits

Parameter	Compost 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 composting 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 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 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 F.4 – 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 F.5 – Impurity Content Limits

Parameter	Compost/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 F.6 – Organic Matter Content Limit

Parameter	Compost/Digestate Limit
Organic Matter	≥ 20%

6. Miscellaneous

Table F.7 – Maturity Test

Parameter	Compost Quality
Viable Weed Seeds	< 3 viable weed seed per litre
Other	As may be approved or required by the Agency

Sign off for Proposed Determinations/Decisions

Signed on behalf of the said Agency _____
On the xx day of xxxxx, 202X xxxxxxxxxxx **Authorised Person**