Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Headquarters
P.O. Box 3000
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County Wexford
Ireland

INDUSTRIAL EMISSIONS LICENCE

Licence Register Number	**W0211-02**
Company Register Number	**388559**
Licensee	**ERAS ECO Limited**
Location of Installation	**Foxhole Youghal County Cork**

ENVIRONMENTAL PROTECTION AGENCY ACT 1992 AS AMENDED

INDUSTRIAL EMISSIONS LICENCE

Decision of Agency, under Section 90(2) of the Environmental Protection Agency Act 1992 as amended.

Reference number in Register of licences: W0211-02

Further to notice dated 29 May 2018, the Agency in exercise of the powers conferred on it by the Environmental Protection Agency Act 1992 as amended, for the reasons hereinafter set out, hereby grants a revised Industrial Emissions licence to:

Eras Eco Limited, Foxhole, Youghal, County Cork. CRO Number 388559.

to carry on the following activities:-

11.1 The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required,

&

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 Water Water Treatment Regulations 2001 (SI No.254 of 2001) apply):

(i) biological treatment;

(ii) pre-treatment of waste for incineration or co-incineration.

(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 Foxhole, Youghal, County Cork, subject to the conditions as set out.

GIVEN under the Seal of the Agency this 5th day of July 2018.

PRESENT when the seal of the Agency
was affixed hereto:

Dr Karen Creed, Authorised Person

INTRODUCTION

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

Eras Eco Limited operate a waste recovery, transfer and treatment installation located on a 1.6-hectare brownfield site close to the Youghal Landfill and Civic Amenity Centre. A maximum 70,000 tonnes per annum (tpa) of commercial and industrial waste is authorised to be accepted under this licence. The existing sludge drying facility treats non-hazardous biological sludge from municipal and industrial waste water treatment plants.

The licensee is currently authorised to take in 110,000 tonnes of waste per year, which includes:

- Commercial and industrial waste 70,000 tonnes
- Non-hazardous sludge 30,000 tonnes
- Leachate from landfills 10,000 tonnes

The quantity of waste to be accepted at the installation will reduce to 65,000 tonnes of waste per year, as follows:

- Commercial, industrial and household waste 20,000 tonnes
- Non-hazardous sludge and food waste 40,000 tonnes
- Leachate from landfills: 5,000 tonnes

This licence review considered the proposal for an anaerobic digestion (AD) plant to be installed at the installation. The AD plant will treat sludge, organic sludge and food waste to produce a biogas. The biogas will be used to generate electricity and heat in a new combined heat and power (CHP) plant.

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

> Category 5.3 (b) Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, and excluding activities covered by Directive 91/271/EEC:
>
> (i) biological treatment;
>
> (ii) pre-treatment of waste for incineration or co-incineration;
>
> (iii) treatment of slags and ashes;
>
> (iv) treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components.
>
> When the only waste treatment activity carried out is anaerobic digestion, the capacity threshold for this activity shall be 100 tonnes per day.

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

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Glossary of Terms

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

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

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Boiler	Woodchip Boiler.
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
CHP	Combined Heat and Power.
COD	Chemical Oxygen Demand.
Commercial Waste	As defined in Section 5(1) of the Waste Management Act 1996, as amended.
Compliance Testing	This constitutes periodical testing to determine whether a waste complies with waste acceptance criteria. The tests focus on key variables and behaviour identified by basic characterisation.
Compliance Point	The point (location, depth) at which a compliance value should be met. Generally it is represented by a borehole or monitoring well from which representative groundwater samples can be obtained.
Compliance Value	The concentration of a substance and associated compliance regime that, when not exceeded at the compliance point, will prevent pollution and/or achieve water quality objectives at the receptor.
Containment boom	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
CRO Number	Company Register Number.
Daily	During all days of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement on any one day.
Day	Any 24 hour period.
Daytime	0700 hrs to 1900 hrs.
dB(A)	Decibels (A weighted).
Digestate	The treated output from anaerobic digestion of biodegradable waste including, whether combined or separated, the solid/fibrous and liquid/liquor fractions.
Digestate liquor	Any liquid resulting from the anaerobic digestion process, whether drawn directly from the digestion chamber or resulting from post-digestion separation.
DO	Dissolved oxygen.
Documentation	Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.

Emission limits	Those limits, including concentration limits and deposition rates, established in *Schedule B: Emission Limits,* of this licence.
EMP	Environmental Management Programme.
End User Agreement	An agreement between the licensee and Irish Water which provides for the contractual conditions and arrangements (outside the terms and conditions set out in this licence) relating to the acceptance of, and treatment by, Irish Water of the licensee's trade effluent and wastewater.
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 or an installation.
Fortnightly	A minimum of 24 times per year, at approximately two week intervals.
Gas Oil	Gas Oil as defined in Council Directive 1999/32/EC and meeting the requirements of S.I. No. 119 of 2008.
GC/MS	Gas chromatography/mass spectroscopy.
Green Waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
Groundwater	Has the meaning assigned to it by Regulation 3 of the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010).
Ha	Hectare.
Hazardous Substances	Substances or mixtures as defined in Article 3 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures.
Heavy metals	This term is to be interpreted as set out in "Parameters of Water Quality, Interpretation and Standards" published by the Agency in 2001. ISBN 1-84095-015-3.
Hours of operation	The hours during which the installation is authorised to be operational.
Hours of waste acceptance	The hours during which the installation is authorised to accept waste.

ICP	Inductively coupled plasma spectroscopy.
IE	Industrial Emissions.
Incident	The following shall constitute as incident for the purposes of this licence: (i) an emergency; (ii) any emission which does not comply with the requirements of this licence; (iii) any 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; and, (vi) any compliance value specified in this licence which is attained or exceeded; and, (vii) any indication that environmental pollution has, or may have, taken place.
Industrial Emissions Directive	Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast).
Industrial waste	As defined in Section 5(1) of the Waste Management Act 1996 as amended.
Installation	A stationary technical unit or plant where the activity concerned referred to in the First Schedule of EPA Act 1992 as amended is or will be carried on, and shall be deemed to include any directly associated activity, which has a technical connection with the activity and is carried out on the site of the activity.
Irish Water	Irish Water, Colvill House, 24/26 Talbot Street, Dublin 1.
K	Kelvin.
kPa	Kilopascals.
$L_{Aeq,T}$	This is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T).
Landfill Directive	Council Directive 1999/31/EC.
$L_{Ar,T}$	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	Eras Eco Limited, Foxhole, Youghal, County Cork, CRO Number 388559.
Liquid waste	Any waste in liquid form and containing less than 2% dry matter.
List of Waste (LoW)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC, as amended by Commission Decision 2014/955/EU and any subsequent amendment published in the Official Journal of the European Community.
List I	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
List II	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
Local Authority	Cork County Council.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.
Mass flow limit	An emission limit value expressed as the maximum mass of a substance that can be emitted per unit time.
Mass flow threshold	A mass flow rate above which a concentration limit applies.
Monthly	A minimum of 12 times per year, at intervals of approximately one month.
Night-time	2300 hrs to 0700 hrs.
Noise-sensitive location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other installation or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
NMP	Nutrient Management Plan.
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).
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.
Source segregated waste	Waste which is separated at source; meaning that the waste is sorted at the point of generation into a recyclable fraction(s) for separate collection (e.g., paper, metal, glass, plastic, bulk dry recyclables, biodegradables, etc.,) and a residual fraction. The expression 'separate at source' shall be construed accordingly.
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 D: 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 approved by the Agency.
Storage	Includes holding of waste.

Storm water	Rain water run-off from roof and non-process areas.
The Agency	Environmental Protection Agency.
TOC	Total organic carbon.
Trade effluent	Trade effluent has the meaning given in the Water Services Act, 2007.
Trigger level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Waste	Any substance or object which the holder discards or intends or is required to discard.
Waste licensing under the Waste Management Act 1996	Any reference within Condition 1: *Scope* of this licence to "waste licensing under the Waste Management Act 1996" or any similar construed reference shall be deemed to mean a reference to industrial emissions licensing under the "Environmental Protection Agency Act 1992 as amended".
Water Services Authority	Cork 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.

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Decision & Reasons for the Decision

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any emissions from the activity will comply with and will not contravene any of the requirements of Section 83(5) of the Environmental Protection Agency Act 1992 as amended.

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

The Agency has accordingly decided to grant a revised licence to Eras Eco Limited to carry on the activities 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: W0211-01.

No objection having been received to the proposed determination, the licence is granted in accordance with the terms of the proposed determination.

In reaching this decision the Agency has considered the documentation relating to:

- the existing licence, Register Number: W0211-01
- the review application, Register Number: W0211-02 and the supporting documentation received from the applicant;
- the Inspector's Report dated 26 April 2018;
- the proposed determination dated 29 May 2018,

and has carried out an Environmental Impact Assessment (EIA) and an Appropriate Assessment (AA) 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 that document is adopted as the assessment of the Agency. Having regard to this assessment, it is considered that the activity, if managed, operated and controlled in accordance with the licence will not result in the contravention of any relevant environmental quality standards or cause environmental pollution.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the 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 Blackwater Estuary SPA [004028], Blackwater River (Cork/Waterford) SAC [002170], Ardmore Head SAC [002123], Ballymacoda (Clonpriest and Pillmore) SAC [000077], Ballymacoda Bay SPA [004023], and Helvick Head to Ballyquin SPA [004192].

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 applicant to submit a Natura Impact Statement. This determination was based on the following:

- there is a discharge of treated process effluent and stormwater into the adjacent Blackwater Estuary SPA [004028] and Blackwater River (Cork/Waterford) SAC [002170].

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 Blackwater Estuary SPA [004028], Blackwater River (Cork/Waterford) SAC [002170], Ardmore Head SAC [002123], Ballymacoda (Clonpriest and Pillmore) SAC [000077], Ballymacoda Bay SPA [004023], and Helvick Head to Ballyquin SPA

[004192], 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 installation is not located within a European Site.
- stormwater from roofs and non-process areas (staff car park) are the only proposed discharge to surface water from the installation into the Blackwater Estuary SPA [004028] and Blackwater River (Cork/Waterford) SAC [002170]. This discharge is unlikely to have an impact on any species or habitat for which the SAC and SPA are designated due to the nature of the discharge.

- discharge of treated process effluent into the Blackwater Estuary SPA [004028] and Blackwater River (Cork/Waterford) SAC [002170] has discontinued with the commissioning of Irish Water wastewater treatment plant in Youghal.

- Schedules and Conditions of the licence stipulate as follows:
  - *Schedule B.2 Emissions to Water,* of this licence, does not permit emissions to water of environmental significance.
  - Condition 3.17 requires storm water from non-processing areas to pass through a silt trap and oil separator prior to release.
  - Condition 3.18.3 requires contaminated storm water to be diverted for collection if contaminated with fire-water. Condition 5.4 states that contaminated storm water shall not be discharged to surface water courses.
  - Condition 6.11 requires weekly inspections of the storm water drainage systems.
  - *Schedule C.7.2 Groundwater Monitoring,* of this licence, requires the applicant to carry out groundwater monitoring. The results of this monitoring are required to be submitted with the Annual Environmental Report.
  - Condition 2.2.2.10 requires the licensee to take corrective measures without delay to restore compliance and to initiate any feasible preventative actions to prevent further breaches of the dust emission limit value at monitoring location D3 in the shortest possible time.

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of the European Sites Blackwater Estuary SPA [004028], Blackwater River (Cork/Waterford) SAC [002170], Ardmore Head SAC [002123], Ballymacoda (Clonpriest and Pillmore) SAC [000077], Ballymacoda Bay SPA [004023], and Helvick Head to Ballyquin SPA [004192].

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 hereby grants this revised Industrial Emissions licence to Eras Eco Limited, Foxhole, Youghal, County Cork, CRO Number 388559 under Section 90(2) of the said Act to carry on the following activities: -

11.1 The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required,

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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 Water Water Treatment Regulations 2001 (SI No. 254 of 2001) apply):

(i) biological treatment;

(ii) pre-treatment of waste for incineration or co-incineration.

(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 Foxhole, Youghal, County Cork, subject to the following twelve Conditions, with the reasons therefor and associated schedules attached thereto.

Part II Schedule of Activities Refused

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

Part III Conditions

Condition 1. Scope

1.1 Industrial Emissions Directive activities at this installation shall be restricted to those listed and described in *Part I Schedule of Activities Licensed* and shall be as set out in the licence application or as modified under Condition 1.4 of this licence and subject to the conditions of this licence.

1.2 Activities at this installation shall be limited as set out in *Schedule A: Limitations* of this licence.

1.3 For the purposes of this licence, the installation authorised by this licence is the area of land outlined in red on Drawing Reference No. PR09-1344 Site Location Map of the review application for licence register number W0211-02. Any reference in this licence to "installation" shall mean the area thus outlined in 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 Waste acceptance hours and hours of operation

1.5.1 Unless otherwise approved by the Agency, waste shall be accepted at and waste or digestate dispatched from the facility only between the hours of 0700 and 1900 Monday to Saturday inclusive.

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

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

1.7 This licence is for the purpose of IE licensing under the EPA Act 1992 as amended only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.

1.8 This licence shall have effect in lieu of the licence granted on 9 November, 2006 (Register Number W0211-01).

1.9 Prior to commencing waste activities involving animal by-products the licensee shall maintain evidence for inspection by the Agency that it has obtained the written consent of the Department of Agriculture, Food and the Marine to treat animal by-products at the installation

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

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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), which shall incorporate energy efficiency management. The EMS shall be reviewed by senior management for suitability, adequacy and effectiveness and updated on an annual basis.

2.2.2 The EMS shall include, as a minimum, the following elements:

2.2.2.1 Commitment of the management, including senior management.

2.2.2.2 An environmental policy defined for the installation that includes the continuous improvement for the installation by the management.

2.2.2.3 Management and Reporting Structure and responsibility.

2.2.2.4 The necessary procedures, objectives and targets, in conjunction with financial planning and investment.

2.2.2.5 The licensee shall maintain and implement standard operating procedures.

2.2.2.6 A procedure for checking performance by sectoral benchmarking on a regular basis including energy efficiency.

2.2.2.7 Schedule of Environmental Objectives and Targets

The licensee shall maintain a Schedule of Environmental Objectives and Targets. The Schedule shall, as a minimum, provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production and the prevention, reduction and minimisation of waste. The Schedule shall include waste reduction targets, including reduction and diversion of storm runoff to sewer. 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.

2.2.2.8 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 2.2.2.7 above. The EMP shall include:

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

The EMP shall be reviewed annually.

A report on the programme, including the success in meeting approved targets, shall be prepared and submitted to the Agency as part of the AER. Such reports shall be retained on-site for a period of not less than seven years and shall be available for inspection by authorised persons of the Agency.

2.2.2.9 Documentation

(i) The licensee shall maintain and implement an environmental management documentation system.

(ii) The licensee shall issue a copy of this licence to all relevant personnel whose duties relate to any condition of this licence.

2.2.2.10 Corrective and Preventative Action

(i) The licensee shall 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.

(iv) The licensee shall where an incident or accident that significantly affects the environment occurs, without delay take measures to limit the environmental consequences of the incident or accident and to prevent further possible incident or accident.

(v) 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.

2.2.2.11 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 the licence. Audit reports and records of the resultant corrective and preventative actions shall be maintained as part of the EMS in accordance with Condition 2.2.2.9 above.

2.2.2.12 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.

2.2.2.13 Communications Programme

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

2.2.2.14 Maintenance Programme

The licensee shall 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.

2.2.2.15 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 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 the licence, shall be installed in accordance with the schedule submitted in the application.

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

(i) Energy efficiency, and

(ii) The environmental impact of eventual decommissioning.

3.3 Specified Engineering Works

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

3.3.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.

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

(i) A description of the works;

(ii) As-built drawings of the works; and

(iii) Any other information requested in writing by the Agency

3.4 Installation Notice Board

(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 1200 mm by 750 mm. 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 operation;

(iii) the name of the licence holder;

(iv) an emergency out of hours contact telephone number;

(v) the licence reference number; and

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

(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.

3.5 Installation Security

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

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

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

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

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

(i) A temporary repair shall be made by the end of the working day; and

(ii) A repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

3.6 Installation Office

3.6.1 The licensee shall maintain an office at the installation. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.

3.6.2 The licensee shall maintain a working telephone and a method for electronic transfer of information at the installation.

3.7 Weighbridge and Wheel Cleaning

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

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

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

3.8 Waste Inspection and Quarantine Areas

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

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

3.8.3 Drainage from the waste inspection area shall be directed to the waste water treatment plant.

3.8.4 The quarantine area shall drain to a containment sump from where it shall be sent for treatment on-site in the WWTP or sent off site for disposal, as appropriate.

3.9 Waste treatment infrastructure

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

(i) Waste acceptance, inspection, storage and treatment/processing areas;

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

(iii) Leachate, digestate liquor and waste water management infrastructure;

(iv) Biogas handling, storage, treatment and combustion infrastructure; and

(v) Air handling and odorous air treatment infrastructure.

3.9.2 Items of plant deemed critical to the efficient and adequate processing of waste at the installation (including inter alia waste loading vehicles and ejector trailers) shall be provided on the following basis: -

(i) 100% duty capacity;

(ii) 20% standby capacity available on a routine basis; and

(iii) Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.

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

(i) 100% duty capacity; and

(ii) 50% standby capacity.

3.9.4 The licensee shall maintain on site a record detailing the duty and standby capacity, in tonnes per day, of all waste handling and processing equipment to be used at the installation. These capacities shall be based on the licensed waste intake, as per *Schedule A: Limitations* of this licence.

3.9.5 The quantity of waste to be accepted at the installation on a daily basis shall not exceed the duty capacity of the equipment at the installation. Any exceedance of this intake shall be treated as an incident.

3.10 Storm Water Management

Storm water management infrastructure shall be provided and maintained at the installation during operation, closure and decommissioning of the installation. As a minimum, the infrastructure shall be capable of the following:

(i) the prevention of discharge of contaminated water, process effluent and/or leachate into surface water drains and courses; and

(ii) the collection/diversion of run-off arising from paved areas.

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

3.12 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.

3.13 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.

3.14 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.

3.15 Tank, Container and Drum Storage Areas

3.15.1 All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004).

3.15.2 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:

(i) 110% of the capacity of the largest tank or drum within the bunded area; or

(ii) 25% of the total volume of substance that could be stored within the bunded area.

3.15.3 All drainage from bunded areas shall be treated as contaminated unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal.

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

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

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

3.15.7 The licensee shall apply a leak detection system in accordance with BAT to all storage tanks, container and drum storage areas that contain liquid material other than water.

3.16 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.

3.17 Silt Traps and Oil Separators

The licensee shall maintain silt traps and oil separators at the installation:

(i) Silt traps to ensure that all storm water discharges, other than from roofs, from the installation pass through a silt trap in advance of discharge;

(ii) An oil separator on the storm water discharge from yard areas. The separator shall be a Class I full retention separator.

The silt traps and separator shall be in accordance with I.S. EN-858-2: 2003 (separator systems for light liquids.

3.18 Fire-water Retention

3.18.1 The licensee shall maintain a firewater retention facility and carry out a review of the risk assessment to determine if the current fire-water retention facility remains adequate. The licensee shall submit the assessment and a report to the Agency on the findings and recommendations of the assessment within six months of the date of grant of this licence.

3.18.2 In the event that a significant risk exists for the release of contaminated fire-water, the licensee shall, based on the findings of the risk assessment, prepare and implement, with the approval of the Agency, a suitable risk management programme. The risk management programme shall be fully implemented within three months of date of notification by the Agency.

3.18.3 In the event of a fire or a spillage to storm water, the site storm water shall be diverted for collection. The licensee shall examine, as part of the response programme in Condition 3.18.2 above, the provision of automatic diversion of storm water for collection. The licenses shall have regard to any guidelines issued by the Agency with regard to firewater retention.

3.18.4 The licensee shall have regard to the Environmental Protection Agency EPA Draft Guidance Note to Industry on the Requirements for Fire-Water Retention Facilities when implementing Conditions 3.18 of this licence.

3.19 All pump sumps, storage tanks, lagoons or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach local or remote containment or separators, shall be fitted with high liquid level alarms (or oil detectors as appropriate) within six months from the date of this revised licence.

3.20 Pipework

3.20.1 The provision of a catchment system to collect any leaks from flanges and valves of all over-ground pipes used to transport material other than water shall be examined. This shall be incorporated into a Schedule of Environmental Objectives and Targets set out in Condition 2 of this licence for the reduction in fugitive emissions.

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

3.20.3 The licensee shall, within three months of the date of this revised licence, label all pipework so as to differentiate between fuels, process flows and waste water. The labelling shall include the direction of flow.

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

3.21 Groundwater wells

3.21.1 All wellheads and groundwater monitoring boreholes shall be adequately protected to prevent contamination or physical damage.

3.21.2 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).

3.21.3 Any new groundwater monitoring wells shall be constructed having regard to the guidance given in the Guidance Note Landfill Manual – Guidance Note on Landfill Monitoring, which was published by the Agency.

3.22 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 maintain an impermeable concrete surface in all areas of the installation, including the floor of the Waste Buildings. The surfaces shall be concreted and constructed to British Standard 8110 or an alternative as approved by the Agency. The licensee shall remedy any defect in concrete surfaces within five working days.

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

3.24 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.

3.25 Sanitary Effluent Treatment

The licensee shall maintain a wastewater treatment plant at the installation for the treatment of sanitary effluent arising on-site.

3.26 Process Wastewater Treatment Plant

3.26.1 Treatment of trade effluent shall be to the quality standard set out in *Schedule B.3 Emissions to Sewer* of this licence.

3.26.2 Unless treated on the on-site wastewater treatment plant, trade effluent shall be tankered off-site in fully enclosed road tankers to an authorised WWTP for treatment.

3.27 The licensee shall provide a minimum of 26 weeks storage for digestate.

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.

(iv) Mass flow thresholds refer to a rate of discharge expressed in units of kg/h, above which the concentration emission limit value applies. Mass flow threshold rates shall be determined on the basis of a single 30 minute measurement (i.e. the concentration determined as a 30 minute average shall be multiplied by an appropriate measurement of flow and the result shall be expressed in units of kg/h).

(v) Mass flow emissions shall be calculated on the basis of the concentration, determined as an average over the specified period, multiplied by an appropriate measurement of flow. No value, so determined, shall exceed the mass flow 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:

Boiler: Temperature 273K, Pressure 101.3 kPa, dry gas; 3% oxygen for liquid and gas fuels, 6% oxygen for solid fuels.

CHP: Temperature 273.15 K, Pressure 101.3 kPa and after correction for the water vapour content of the waste gases and at a standardised O_2 content of 15%.

4.3 Emission limit values for emissions to sewer and waters in this licence shall be achieved without the introduction of aqueous dilution, and shall be interpreted in the following way:

4.3.1 Continuous Monitoring

(i) No flow value shall exceed the specific limit.

(ii) No pH value shall deviate from the specified range.

(iii) No temperature value shall exceed the limit value.

4.3.2 Composite Sampling

(i) No pH value shall deviate from the specified range.

(ii) For parameters other than pH and flow, eight out of ten consecutive composite results, based on flow proportional composite sampling, shall not exceed the

emission limit value. No individual results similarly calculated shall exceed 1.2 times the emission limit value.

4.3.3 Discrete Sampling

For parameters other than pH and temperature, no grab sample value shall exceed 1.2 times the emission limit value.

4.4 Digestate Quality Test Results

The digestate quality standard set out in *Schedule E: Standards for Digestate Quality* of this licence shall apply to digestate after the anaerobic digestion phase and prior to mixing with other materials.

4.5 Where the ability to measure a parameter is affected by mixing before emission, then, with approval from the Agency, the parameter may be assessed before mixing takes place.

4.6 Noise

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

4.7 Dust and Particulate Matter

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

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

Condition 5. Emissions

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

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

5.3 There shall be no direct emissions to groundwater.

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

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

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

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

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

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

5.8 Emissions to Sewer

5.8.1 The licensee shall permit authorised persons of the Agency and the Sanitary Authority to inspect, examine and test, at all reasonable times, any works and apparatus installed, in connection with the trade effluent, and to take samples of the trade effluent.

5.8.2 Other than trade effluent authorised to be discharged under this licence, the licensee shall at no time discharge or cause or permit to be discharged into the sewer trade effluent or any other thing unless authorised in writing by Irish Water.

5.8.3 In accordance with the Fourth Schedule of the Urban Waste Water Treatment Regulations (S.I. No. 254 of 2001), no materials may be discharged to the sewer that will affect the health of staff working in collecting systems and treatment plants.

5.8.4 Other than the trade effluent authorised to be discharged under this licence, the licensee shall at no time discharge or cause or permit to discharge into sewer trade effluent or any other matter unless authorised in writing by Irish Water.

5.8.5 The licensee shall conclude an end user agreement with Irish Water.

5.8.6 The licensee shall ensure that any trade effluent from canteen activities shall pass through appropriate grease removal equipment prior to discharge to sewer.

5.8.7 A summary report of volumes of trade effluent and other matter discharged to the sewer along with monitoring and analysis data as specified in *Schedule B: Emission Limits to Sewer* of this licence and *Schedule C: Control & Monitoring* of this licence shall be forwarded to both Irish Water and the local authority in a manner and timeframe as may be specified by Irish Water.

5.9 Emissions to Surface Water

5.9.1 The licensee shall ensure that any discharge of stormwater complies with the requirements of the *European Communities Environmental Objectives (Surface Water) Regulations 2009,* as amended.

5.9.2 All stormwater which is found to be contaminated shall be retained at the installation pending treatment in the on-site waste water treatment plant or tankering off-site to an approved waste water treatment plant.

5.9.3 The licensee shall, within six months of commencement of the activity, establish suitable trigger levels for TOC, total ammonia and suspended solids in storm water discharges, such that storm waters exceeding these levels will be diverted for retention and suitable disposal. The licensee shall have regard to the Environmental Protection Agency "Guidance on the setting of trigger values for storm water discharges to off-site surface waters at EPA IPPC and Waste licensed facilities" when establishing the suitable trigger levels.

5.9.4 The licensee shall, within six months of the date of grant of this licence, develop and maintain a response programme to address instances where the trigger level values are achieved or exceeded. This response programme shall include actions designed to ensure that there will be no storm water discharges of environmental significance.

Reason: ***To provide for the protection of the environment by way of control and limitation of emissions and to provide for the requirements of Irish Water in accordance with Section 99E of the EPA Act 1992 as amended***

Condition 6. Control and Monitoring

6.1 Test Programme

6.1.1 The licensee shall prepare a test programme for abatement equipment installed to abate emissions to atmosphere.

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; and

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

6.1.5 A report on the test programme shall be submitted to the Agency within one month of completion.

6.2 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring* of this licence.

6.2.1 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.

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 that will ensure the provision of data of an equivalent scientific quality shall apply.

6.4 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been 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 accurately reflects the emission/discharge.

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 a programme for the identification and reduction of fugitive emissions using an appropriate combination of best available techniques. This programme shall be included in the Environmental Management Programme.

6.10 The integrity and water tightness of all 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. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

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

6.12 All wastewater/leachate/contaminated storm water gullies, drainage grids and manhole covers shall be painted with red squares whilst all clean storm water discharge gullies, drainage grids and manhole covers shall be painted with blue triangles. These colour codes shall be maintained so as to be visible at all times during installation operation, and any identification designated in this licence (i.e. SW1 and SE1) shall be inscribed on these manholes.

6.13 An inspection system for the detection of leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be developed and maintained within six months of the date of grant of this licence.

6.14 Dust and Odour Control

The licensee shall install and provide abatement for the control of odours and dust emissions, including fugitive dust emissions, from the installation.

6.14.1 The road network in the vicinity of the installation shall be kept free from any debris caused by vehicles entering or leaving the installation. Any such debris or deposited materials shall be removed without delay.

6.14.2 All buildings for the storage or treatment of residual, food and odour-forming waste shall be maintained at negative air pressure with ventilated gases being subject to treatment.

6.14.3 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.

6.14.4 The licensee shall maintain, at a frequency to be approved or directed by the Agency, and in any case no less than once every three years, an odour impact assessment. The assessment shall identify and quantify all significant odour sources at the installation and shall include an assessment of the suitability and adequacy of the odour control system. Any recommendations arising from the odour impact assessment shall be implemented following approval by the Agency.

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

6.14.6 Sludge reception bins shall be located within the sludge reception building. The bins shall be covered with hydraulic lids and gratings and head gases shall be vented to a biofilter for odour abatement.

6.14.7 Gaseous emissions from the cooling tower shall be treated in a biofilter.

6.14.8 The waste water treatment plant shall be covered and active extraction installed. Gaseous emissions shall be treated in a biofilter.

6.14.9 All residual, food and odour-forming waste shall be treated at the installation or shall be removed from the installation with 48 hours of its arrival.

6.14.10 The sludge drying equipment shall operate as a closed system and shall be operated within a fully enclosed sludge drying building.

6.14.11 Provision of back-ups and spares must be provided for the air handling, ventilation and abatement plant.

6.15 Storm Water

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

6.15.2 The licensee shall ensure that storm water is diverted from the foul sewer.

6.16 Ground Water

6.16.1 The licensee shall annually assess groundwater monitoring data and determine compliance under this licence with the European Communities Environmental Objectives (Groundwater) Regulations 2010, S.I. No 9 of 2010, as amended.

6.16.2 A report on this assessment shall be included in the AER.

6.16.3 The licensee shall, in the event of a failure to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010, as amended, or if instructed by the Agency, arrange for the completion, by an appropriately qualified consultant/professional, of a hydrogeological risk assessment to:

- identify the risk of groundwater contamination arising from licensed and past activities;
- assess the impact of extant groundwater contamination;
- propose preventative and, as appropriate, remedial actions to be undertaken;
- propose groundwater compliance values to be maintained at compliance points; and
- address other matters that may be identified by the Agency.

6.16.4 A hydrogeological risk assessment prepared under Condition 6.16.3 shall be submitted to the Agency.

6.16.5 The licensee shall implement the following:

- any proposals or recommendations arising from the hydrogeological risk assessment;
- the installation of new groundwater monitoring boreholes where necessary to characterise groundwater quality; and
- any other matters that may be directed by the Agency.

6.16.6 The licensee shall ensure that groundwater monitoring well sampling equipment is available or installed on-site at the facility and is fit for purpose at all times. The sampling shall be to Agency specifications.

6.17 Noise

The licensee shall carry out a noise survey of the site operations as required by the Agency. The survey programme shall be undertaken in accordance with the methodology specified in the 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)' as published by the Agency.

6.18 Pollutant Release and Transfer Register (PRTR)

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

6.19 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.

Reason: ***To provide for the protection of the environment by way of treatment and monitoring of emissions and to provide for the requirements of Irish Water in accordance with Section 99E of the EPA Act 1992 as amended.***

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 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible. Reductions in water usage shall be incorporated into Schedule of Environmental Objectives and Targets under Condition 2 above.

7.4 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets 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.

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8.3 Waste Acceptance and Characterisation Procedures

8.3.1 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.

8.3.2 Waste shall be accepted at the installation from known waste producers or new waste producers subject to initial waste profiling and basic characterisation off-site. The written records of this off-site waste profiling and characterisation shall be retained by the licensee for all active waste producers and for a two-year period following termination of licensee/waste producer agreements. There shall be no casual public access to the facility.

8.3.3 Any waste deemed unsuitable for processing at the facility and/or in contravention of this licence shall be immediately separated and removed from the facility at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area. 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.

8.3.4 Waste shall only be accepted at the installation from local authority waste collection or transport vehicles or holders of valid waste collection permits, unless exempted or excluded, issued under the Waste Management Act 1996, as amended. Copies of these waste collection permits shall be maintained at the installation.

8.3.5 No hazardous waste shall be accepted at the installation.

8.3.6 Waste accepted for biological treatment at the installation shall be conducive to biological treatment, shall facilitate the achievement of any relevant output quality standards and shall be compatible with the appropriate end-use for the biologically treated material.

8.3.7 Waste arriving at the installation shall be inspected and have its documentation checked at the point of entry to the installation and, subject to this verification, shall be weighed, documented and directed to an appropriate area within the waste building. Each load of waste arriving at the waste building shall be inspected upon tipping within the building or, to the extent possible, discharge into a storage vessel. Only after such inspections shall the waste be processed for disposal or recovery.

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

8.3.9 In relation to the acceptance and handling of non-hazardous biological sludge, these procedures shall detail the sludge characterisation process including as a minimum:

(i) the parameters to be analysed for each source of sludge;

(ii) the test methods for sampling and analysis of sludge;

(iii) the criteria that must be fulfilled prior to acceptance, and

(iv) the quantities of each type of sludge that may be accepted.

8.4 Waste sent off-site for recovery or disposal

8.4.1 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor. The waste shall be transported from the site of the activity to the site of recovery/disposal only in a manner that will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.

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

8.5 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.

8.6 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.

8.7 Operational Controls

8.7.1 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.

8.7.2 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.

8.7.3 No waste classified as green list waste in accordance with the EU Transfrontier Shipment of Waste Regulations (Regulation (EC) No. 1013/2006) shall be consigned for recovery without the approval of the Agency.

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

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

8.7.6 Unless approved in writing 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.

8.7.7 All residual, food and other odour-forming waste accepted at the installation shall be treated within 48 hours of its arrival at the installation or removed from the installation.

8.7.8 The floor and surfaces of the feedstock bays shall be cleaned from waste debris daily or when cleared of waste and in any event every 48 hours.

8.7.9 All waste treatment equipment shall be cleared of waste at an appropriate frequency.

8.7.10 Scavenging shall not be permitted at the installation.

8.8 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.

8.9 Waste and Materials Storage Plan

8.9.1 The licensee shall maintain and implement a Waste and Materials Storage Plan for all waste, other feedstocks, digestate, other materials and waste water stored and held at the installation.

8.9.2 Waste and Materials Storage Plan shall include:

- the recommendations of the Fire Risk Assessment required by Condition 9.5 of this licence;
- a limit on the total quantity of waste to be stored at the installation at any one time;
- maximum stockpile sizes in designated storage areas including maximum volume, height, length, width and area, and minimum separation distances;
- a limit on the maximum storage or holding period for each type of waste in designated storage areas;
- limitations, as may be necessary, on waste storage arrangements to be used during warm weather to prevent odours arising;

- a drawing or plan of the location of each waste type and the means of storage for each waste type (e.g. as loose waste, baled, in sealed containers);
- details of the drainage system super-imposed on the above drawing or plan; and a designated fire quarantine area.

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

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

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

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

8.10 Biogas Treatment

8.10.1 The anaerobic digestion plant shall be operated to maximise the production of biogas.

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

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

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

8.11 Quality of Digestate

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

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

8.11.3 Treated waste that fails to meet the quality standard for digestate as set out Tables E.1 Maximum Respiration Activity, E.3 Pathogenic Organism Content Limits, E.4 Impurity Content Limits and E.5 Organic Matter Content Limit of *Schedule E: Standards for Digestate Quality* of this licence may be reused in the process or treated as waste. Treated waste that fails to meet the quality standard for digestate as set out Table E.2 Maximum Concentration Limits of *Schedule E: Standards for 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.

8.11.4 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.

8.11.5 Where an alternative digestate quality standard is approved by the Agency in accordance with Condition 8.11.2 above, the digestate monitoring programme associated with the approved alternative digestate quality standard may be employed in lieu of the 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.

8.11.6 In the event of failure to achieve a quality standard parameter for digestate as set out in *Schedule E: Standards for Digestate Quality* of this licence:

(i) The licensee shall evaluate any feedstock and/or process changes relevant to the sampled batch of material prior to the sampling date and specify the corrective actions taken including any re-sampling or reuse of the failed material back into the anaerobic digestion process.

(ii) Subsequent batches of treated waste shall be tested against all parameters in *Schedule E: Standards for Digestate Quality* of this licence in order to re-validate the process. Only following the pass of three successive batches through the process can the process be deemed to be stable and the normal compliance monitoring programme re-instated. The licensee shall notify the Agency when the process has been re-validated and deemed to comply with the requirements of this condition.

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

8.12 Digestate Monitoring

8.12.1 Digestate quality monitoring shall be undertaken to demonstrate compliance with the quality standard as set out in *Schedule E: Standards for Digestate Quality* of this licence.

8.12.2 Digestate analysis shall be carried out at the frequency specified below.

(a) Every six months where more than 500 and up to 1,000 tonnes of digestate is produced per year.

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

(c) Every month where more than 10,000 tonnes of digestate is produced per year.

8.12.3 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.

8.13 The licensee shall record the movement of all digestate from the installation, the record of each movement shall as a minimum include the date of movement off site, quantity, nutrient content, transporter, final recipient/user and off-site storage.

8.14 Each load of waste dispatched to landfill shall be accompanied by documentation verifying the type of treatment carried out on the waste and, in the case of municipal waste or treated municipal waste, its biodegradable content.

8.15 Sludge Dryer Boiler

8.15.1 The Sludge Dryer Boiler shall be operated on light fuel oil, untreated wood, or waste wood subject to Condition 8.15.2 of this licence.

8.15.2 Waste wood used as fuel shall not contain halogenated organic compounds or heavy metals as a result of treatment with wood-preservatives or coating and shall not originate from construction and demolition waste.

8.15.3 The licensee shall maintain detailed written procedures for the acceptance, handling and use as fuel of waste wood.

8.15.4 Wood waste arriving at the facility shall be inspected at the point of entry to the facility. A record of all inspections of incoming waste loads shall be maintained.

8.15.5 Any wood waste deemed unsuitable for use as a fuel at the facility and/or in contravention of this licence shall be immediately separated and removed from the facility at the earliest possible time.

8.15.6 The licensee shall maintain a register of suppliers of the wood waste that is used as a fuel in the Sludge Dryer Boiler. This register shall be available for inspection on-site by the Agency at all reasonable times.

8.15.7 The licensee shall ensure that all wood waste, bark, sawdust and woodchip are held in suitable storage within the woodchip storage building, protected from the elements. No wood waste, bark, sawdust or woodchip shall be stored outdoors.

8.15.8 The transportation of wood waste, bark, sawdust and woodchip shall be carried out using covered vehicles and in such a manner as to minimise fugitive emissions.

8.16 Sludge Drying Facility

Non-hazardous biological sludge shall have a minimum dry solid content of 10% prior to acceptance at the facility.

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;

(vi) notify the Agency as required by Condition 11.2 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, or in the case of putrescible waste already accepted at the installation, shall be transferred directly to an alternative authorised facility until such time as the installation is returned to a fully operational status. The breakdown of equipment or any other occurrence which results in the closure of the installation, regardless of duration, shall be treated as an emergency and rectified as soon as possible.

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

9.4.3 With the exception of use of recovered fuels as may be approved for this site by the Agency, no waste shall be burned at the facility. A fire at the facility shall be treated

as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

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

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

Condition 10. 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 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.

10.2 Decommissioning Management Plan (DMP)

10.2.1 The licensee shall submit a revised DMP for approval by the Agency. The licensee shall maintain a fully detailed and costed plan for the closure, restoration and long-term aftercare of the site or part thereof.

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

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

10.3 The Decommissioning Management Plan (DMP) shall include, as a minimum, the following:

(i) a scope statement for the plan;

(ii) the criteria that define the successful closure and restoration and aftercare of the activity or part thereof, which ensures minimum impact on the environment;

(iii) a programme to achieve the stated criteria;

(iv) where relevant, a test programme to demonstrate the successful implementation of the plan;

(v) details of the long-term supervision, monitoring, control, maintenance and reporting requirements for the restored facility; and

(vi) details of the costings for the plan and the financial provisions to underwrite those costs.

10.4 A final validation report to include a certificate of completion for the Decommissioning Management Plan, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

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

Condition 11. Notification, Records and Reports

11.1 The licensee shall notify the Agency, in a format as may be specified by the Agency, one month in advance of the intended date of commencement of the Scheduled Activity.

11.2 The licensee shall notify the Agency by both telephone and either email or webform, to the Agency's headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:

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

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

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

(iv) any malfunction or breakdown of key control equipment or monitoring equipment set out in *Schedule C: Control & Monitoring* of this licence which is likely to lead to loss of control of the abatement system; and

(v) any incident or accident as defined in the glossary requiring an emergency response by the Local Authority.

The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions. All details required to be communicated must be in accordance with any Guidance provided by the Agency.

11.3 In the event of any incident which relates to discharges to sewer having taken place, the licensee shall notify Irish Water and the local authority, in the manner prescribed by Irish Water, as soon as practicable after such an incident.

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

(ii) 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 Conditions 11.2, 11.3 and 11.4 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;

(viii) any elements of the licence application or EIS documentation referenced in this licence.

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

11.9 The licensee shall submit to the Agency, by the 31st March of each year, an AER covering the previous calendar year. This report shall include as a minimum the information specified in *Schedule D: Annual Environmental Report* of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.

11.10 Waste Recovery Reports

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

(i) proposals for the contribution of the facility to the achievement of targets for the reduction of biodegradable waste to landfill as specified in the Landfill Directive;

(ii) the separation of recyclable materials from the waste;

(iii) the recovery of metal waste and WEEE.

11.11 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall be maintained on a monthly basis and shall as a minimum contain details of the following:

(i) the tonnages and LoW Code for the waste materials imported and/or sent off-site for disposal/recovery;

(ii) the names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number);

(iii) details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its permit/licence details and issuing authority, if required;

(iv) written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site;

(v) details of all waste consigned abroad for Recovery and classified as 'Green' in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended). The rationale for the classification must form part of the record;

(vi) details of any rejected consignments;

(vii) details of any approved waste mixing;

(viii) the results of any waste analyses required under *Schedule C: Control & Monitoring*, of this licence; and

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

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

(i) the date and time;

(ii) the name of the carrier (including if appropriate, the waste carrier registration details);

(iii) the vehicle registration number;

(iv) the trailer, skip or other container unique identification number (where relevant);

(v) the name of the producer(s)/collector(s) of the waste as appropriate;

(vi) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;

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

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

(ix) details of the treatment(s) to which the waste has been subjected;

(x) the classification and coding of the waste, including whether MSW or otherwise;

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

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

(xiii) where loads or wastes are removed, or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed.

11.13 A record shall be kept of each consignment of trade effluent, leachate and/or contaminated storm water removed from the facility. The record shall include the following:

(i) the name of the carrier;

(ii) the date and time of removal of trade effluent, leachate and/or contaminated storm water from the facility;

(iii) the volume of trade effluent, leachate and/or contaminated storm water, in cubic metres, removed from the facility on each occasion;

(iv) the name and address of the Waste Water Treatment Plant to which the trade effluent, leachate and/or contaminated storm water was transported; and

(v) any incidents or spillages of trade effluent, leachate and/or contaminated storm water during its removal or transportation.

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

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

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

Condition 12. Financial Charges and Provisions

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of €18,274, 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 the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Environmental Protection Agency Act 1992 as amended, and all such payments shall be made within one month of the date upon which demanded by the Agency.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased, the licensee shall contribute such sums as determined by the Agency to defray its costs in regard to items not covered by the said annual contribution.

12.2 Irish Water Charges

The licensee shall pay to Irish Water such sum as may be determined from time to time, having regards to the variations in the cost of providing drainage and the variation in effluent reception, treatment, monitoring, sampling and analysis costs. Payment to be made on demand from Irish Water.

12.3 Environmental Liabilities

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

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

12.3.3 The licensee shall, prior to commencement of the anaerobic digestion activity and associated odour control, to the satisfaction of the Agency, make financial provision to cover any liabilities associated with the operation (including closure, restoration and aftercare). The amount of financial provision held shall be reviewed and revised as necessary, but at least annually. Proof of renewal or revision of such financial indemnity shall be included in the annual 'Statement of Measures' report identified in Condition 12.3.1 above.

12.3.4 The licensee shall revise the cost of closure, restoration and aftercare annually and any adjustments shall be reflected in the financial provision made under Condition 12.3.3 above.

12.3.5 The licensee shall have regard to the Environmental Protection Agency's Guidance on Assessing and Costing Environmental Liabilities (2014) and Guidance on Financial Provision (2015) and the baseline report when implementing Conditions 12.3.2, 12.3.3 and 12.3.4 above.

Reason:	***To provide for adequate financing for monitoring and financial provisions for measures to protect the environment and to provide for the requirements of Irish Water in accordance with Section 99E of the EPA Act 1992 as amended.***

SCHEDULE A: Limitations

A.1 Waste Processes

The following waste related processes are authorised:

(i) Sludge drying and associated processes including:

- sludge pre-treatment and preparation for drying,
- stabilisation of sludge through the addition of lime,
- combustion of waste wood as fuel for the drying process, and
- processes for the management and mitigation of environmental emissions.

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

- waste pre-treatment and preparation for anaerobic digestion,
- digestate treatment,
- biogas combustion in combined heat and power plant and flare,
- storage of waste and outputs of waste treatment, and
- processes for the management and mitigation of environmental emissions.

(iii) General waste handling, transfer and associated processes including:

- sorting, separating, shredding, compacting, bailing, repackaging of recyclable wastes for transfer,
- storage of waste pending transfer,
- recovery of dry recyclable waste, and
- processes for the management and mitigation of environmental emissions.

No additions to these processes are permitted unless approved in advance by the Agency.

A.2 Waste Acceptance

Table A.2 Waste Categories and Quantities for Treatment

WASTE TYPE Note 1	MAXIMUM (TONNES PER ANNUM)
Non-hazardous sludge and food waste sludge, sludges from industrial and municipal waste water treatment plants for treatment in a sludge dryer and anaerobic digesters - activities as listed in *Schedule A.1(i)and (ii)* above	40,000
Non-hazardous liquid waste that is conducive to treatment by anaerobic digestion - activities as listed in *Schedule A.1(ii)* above.	5,000
Mixed dry recyclables for activities as listed in *Schedule A.1(iii)* above	20,000

Note 1: Any proposals to accept other compatible waste streams must be approved in advance by the Agency and the total amount of waste must be within the amount specified.

SCHEDULE B: Emission Limits

B.1.1 Emission Limit Values for Boiler Stack

Emission Points Reference No.: A1 Sludge Dryer Boiler Stack

Location: 209710E, 079775N

Minimum discharge height: 16.5 m above ground

Maximum flow volume (each gas engine): 11,600 Nm^3/hr

Parameter	Emission Limit Value
Nitrogen oxides (NOx as NO_2)	250 mg/m^3
Carbon monoxide	150 mg/m^3
Dust / Particulates as PM_{10} and $PM_{2.5}$	20 mg/m^3

B.1.2 Emission Limit Value for Biofilter and Carbon filter

Emission Point reference no: A2 Existing Biofilter

Location: Wastewater treatment plant area (209708E, 079819N)

Minimum discharge height: 2.75 m above ground

Maximum flow volume: 2,000 Nm^3/hr

Parameter	Emission Limit Value
Odour	1,000 Ou_E/m^3

Emission Point reference no: A3 Odour Control Unit (Carbon filter)

Location: Materials Recovery Building (209652E, 079780N)

Minimum discharge height: 15 m above ground

Maximum flow volume: 29,980 Nm^3/hr

Parameter	Emission Limit Value
Odour	1,500 Ou_E/m^3

B.1.3 Emission Limit Values for Biogas Combustion

Emission Points Reference No.: A4 CHP Plant Gas Engine (209623E, 079732N)
Minimum discharge height: 19 m above ground
Maximum flow volume: 3,000 Nm^3/hr

Parameter	Emission Limit Value (mg/Nm^3)
Nitrogen oxides (NOx as NO_2)	190
Sulphur dioxide	40
Carbon monoxide	1,400
Total VOCs (incl. CH_4)	1000
Total non-methane volatile organic compounds	75

B.1.4 Dust Deposition Limits

Level (mg/m^2 /day) Note 1
350

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

B.2 Emissions to Water

There shall be no emissions to water of environmental significance.

B.3 Emissions to Sewer

Emission Point Reference No.: SE1

Location: 209701E, 079869N

Volume to be emitted: Maximum in any one day: 170 m^3
Maximum rate per hour: 7 m^3

Parameter	Emission Limit Value	
Temperature	25°C (max.)	
pH	6.0 – 8.5	
	Daily Concentration (mg/l)	**Daily Load (kg/day)**
BOD	20	3.4
COD	125	21.25
Suspended Solids	35	5.95
Total Nitrogen (as N)	10	1.7
Ammonia (as N)	0.5	0.085
Total Phosphorus (as P)	1	0.17
Chloride	350	59.5
Sulphate	100	17
Cyanide	0.01	0.0017
VOC	0.05	0.0085
Semi VOC	0.05	0.0058
Lead	0.005	0.0009
Zinc	0.1	0.017
Copper	0.03	0.0051
Cadmium (Total)	0.005	0.0009
Arsenic (Total)	0.02	0.0034
Chromium	0.015	0.0026
Nickel	0.025	0.0043
Faecal Coliforms	<250 FC/100 ml	

B.4 Noise Emissions

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

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

SCHEDULE C: Control & Monitoring

C.1.1. Control of Emissions to Air

Emission Point Reference No: A1 (Bag Filter)
A2 (Biofilter)
A3 (Carbon Filter)

Description of Treatment: Bag filtration
Carbon filtration
Bio-filtration

Control Parameter	Monitoring	Key Equipment Note 1
Bag Filter		
Filter Integrity	Differential Pressure	Manometer
Airflow	Pitot tube/flowmeter	Filter
Carbon filter and Bio-filter		
Ammonia	Biannually (at inlet and outlet)	Colorimetric indicator tubes Note 2
Hydrogen sulphide	Biannually (at inlet and outlet)	Colorimetric indicator tubes Note 2
Mercaptans	Weekly (at inlet and outlet)	Colorimetric indicator tubes Note 2
Amines	Biannually (at inlet and outlet)	Colorimetric indicator tubes Note 2
Organics	Biannually (at inlet and outlet)	Adsorbent tubes and pumps/GC
Biofilter Bed Media Note 3		
Intake Air	Weekly	Fan/Motor/Belt assembly
Differential Pressure	Weekly	Manometer
Gas loading	Weekly	Flowmeter
Sprinkler System	Daily	Visual Inspection
Visual Inspection of Bed Note 2	Weekly	Visual Inspection
pH Return Water	Monthly	Standard Method
Bed material – moisture	Biannually	Standard Method
Other as required by the Agency		
General - Biofilter		
Fan Operation	Daily visual check	System is operational
Negative pressure across biofilter	Monthly	Air current tubes
		SCADA control system

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.
Note 2: Or an alternative method 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.

Emission Point Reference No: A4 (CHP Plant)
Location: As per Drawing No. 15-193-02 Rev C
Description of Treatment: Biogas combustion

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

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

Emission Point Reference No: A5 (Standby Biogas Flare)
Location: As per Drawing No. 15-193-02 Rev C
Description of Treatment: Biogas Combustion

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

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

C.1.2. Monitoring of Emissions to Air

Emission Point Reference No.: A1 - Boiler

Parameter	Monitoring Frequency	Analysis Method/Technique
NOx	Quarterly	Flue gas analyser
CO	Quarterly	Flue gas anlyser
Particulates as PM_{10} and $PM_{2.5}$	Quarterly	Isokinetic/Gravimetric

Emission Point Reference No: A2 - Biofilters
A3 – Carbon filters

Parameter	Monitoring Frequency	Analysis Method/Technique
Odour	Quarterly	Olfactometric Note 1

Note 1: Odour measurements shall be by olfactometric measurement and analysis shall be for mercaptans, hydrogen sulphide, ammonia, and amines.

Emission Point Reference No: A4

Description of Treatment: CHP plant - biogas combustion

Parameter	Monitoring	Analysis Method/Technique
Nitrogen oxides (NOx as NO2)	Monthly for the first twelve months of operation and quarterly thereafter	Flue gas analyser
Sulphur dioxide		Flue gas analyser
Total VOCs (incl. CH4)		As agreed by Agency
Total non-methane volatile organic compounds		As agreed by Agency
Carbon Monoxide	Continuous	CO Analyser

C.2 Monitoring of Biological Treatment Processes

Parameter	Monitoring Frequency	Monitoring equipment/method
Anaerobic digestion process		
Temperature	Continuous	Temperature probe and recorder
pH in digesters	Daily	pH probe
Pressure relief valve status (open/closed)	Continuous on each valve	Event and time recorder
Biogas flow	Continuous	Flow meter and recorder
Biogas pressure in digester system	Continuous	Pressure gauge and recorder
Biogas pressure in storage system	Continuous	Pressure gauge and recorder
Biogas pressure in CHP and flare systems	Continuous	Pressure gauge and recorder
CHP runtime	Continuous	Time recorder
Flare runtime	Continuous	Time recorder
Tank mixing systems status (on/off)	Continuous	Event and time recorder
Biogas analysis from anaerobic digestion (prior to use)		
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.3.1 Control of Emissions to Water

There shall be no emissions to water of environmental significance.

C.3.2 Monitoring of Emissions to Water

There shall be no emissions to water of environmental significance.

C.3.3 Control of Storm Water Emission

Emission Point Reference No: SW1 (209710E, 079874N)

Description of Treatment: Four Oil interceptors/Silt Traps

Control Parameter	Monitoring	Key Equipment Note 1
Oil Removal	Mineral Oil content in water at discharge point (visual)	Class I, Full Retention Oil Interceptor Shut-off valve
Suspended Solids		Silt traps

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

C.3.4 Monitoring of Storm Water Emission

Emission Point Reference No.: SW1 (209710E, 079874N)

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

Note 1: Where there is evident gross contamination, additional samples should be analysed and the full suite of parameters shown tested.

Note 2: The analyses shall be carried out by a competent laboratory using standard and internationally accepted procedures.

C.4.1. Control of Emissions to Sewer

Emission Point Reference No.: SE1 (207697E, 079871N)

Description of Treatment: Waste Water Treatment Plant

Control Parameter	Monitoring	Key Equipment [Note 1]
pH	Continuous	pH meter with recorder
Temperature	Continuous	Temperature probe with recorder
Flow	Continuous	Flow meter with recorder
Effluent (pH) Neutralisation (to pH > 6.8)	Continuous	IBC level sensor Caustic soda dosing pump Condensate feed pump with low level protection
Urea dosing		IBC level sensor Urea dosing pump
Anoxic zone		Submersible mixer
Blowers		Pressure switch Temperature switch
MBR tank (membrane filtration)	Continuous	Level probe Level sensor Flow meter
Final permeate pumping		Submersible pump
Fats, oil and grease removal	Fats, oil and grease content in trade effluent as a result of canteen activities	Grease removal equipment. [Note 2]

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

Note 2: Grease removal equipment shall comply with the requirements of European standards (EN) or plumbing and drainage institute (PDI) standards or as otherwise specified by Irish Water.

C.4.2 Monitoring of Emissions to Sewer

Emission Point Reference No.: SE1 (207697E, 079871N)

Parameter	Monitoring Frequency Note 1 & 2	Analysis Method/Technique
Flow to sewer	Continuous	In line Flow meter with recorder
Temperature	Continuous	Temperature Probe with recorder
pH	Continuous	pH meter with recorder
Chemical Oxygen Demand	Weekly	Standard Method
Biochemical Oxygen Demand	Monthly	Standard Method
Suspended Solids	Weekly	Standard Method
Total Nitrogen	Quarterly	Standard Method
Sulphate	Quarterly	Standard Method
Chloride	Quarterly	Standard Method
Total Phosphorous	Quarterly	Standard Method
Ammonia	Quarterly	Standard Method
Cyanide	Biannually	Standard Method
Mercury	Biannually	Standard Method
VOC	Quarterly	Standard Method
Semi VOC	Quarterly	Standard Method
Metal suite	Annually	AA/ICP
Faecal coliforms	Quarterly	Standard Methods
Respirometry	As requested	Standard Method

Note 1: All samples excluding those for pH and temperature shall be collected on a 24-hour flow proportional composite sampling basis.

Note 2: Sampling shall take place on alternate week days on a rolling basis to ensure representative samples are obtained for site operations which may vary across the working week.

C.5 Waste and Digestate Monitoring

Type	Parameter	Frequency	Analysis Method /Techniques
Inlet and outlet flow of anaerobic digesters	TOC, COD, N, P, Cl	Weekly	Standard method
Digester contents	- Volatile fatty acids - Alkalinity	Daily	Standard method
Digestate	Per conditions of this licence		Standard method
Boiler Ash	Weight Metals analysis	Per load Annual	Weighbridge Records Standard Method
Dried Sludge Granulate	Weight Metals, N & P analysis	Per load Annual	Weighbridge Records Standard Method
Other Note 1			

Note 1: Analytical requirements to be determined on a case by case basis.

C.6 Noise Monitoring

Location: N1, N2, N3 and NSR (as submitted in review Application Form, received 21/10/2016)

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

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

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

C.7 Ambient Monitoring

C.7.1 Dust and Odour Monitoring

Monitoring Point Reference No.: D1, D2, and D3

Location: 209701E 079882N, 209701E 079733N, 209578E 079790N

Parameter	Monitoring Frequency	Analysis Method/ Technique
Dust deposition	Three times a year	VDI 2119 Bergerhoff method

Location: At entrance gate and site boundary

Parameter	Monitoring Frequency	Analysis Method/ Technique
Odour	Daily	Sniff Test

C.7.2 Groundwater Monitoring

Location: [Note 1]

MW1 – E209704, 79731 (south-eastern boundary of site)
MW2 – E209589, 79778 (western boundary of site)
MW3 – At location of TP1 from Trial Pit Examination March/April 2005- site of previous location of a diesel storage unit)

Parameter	Monitoring Frequency	Analysis Method/Technique
pH	Biannually	pH electrode/meter
Conductivity	Biannually	Conductivity meter
COD	Biannually	Standard Method
Diesel Range Organics	Biannually	Standard Method
Petrol Range Organics	Biannually	Standard Method
Nitrate	Biannually	Standard Method
Total Ammonia	Biannually	Standard Method
Chloride	Biannually	Standard Method
Cadmium	Biannually	Standard Method
Cobalt	Biannually	Standard Method
Iron	Biannually	Standard Method
Manganese	Biannually	Standard Method
Arsenic	Biannually	Standard Method
Organohalogens [Note 2]	Biannually	GC-MS

Note 1: Locations shown on Drawing No. 2004_121_Emissions Points, dated 15/06/2006.
Note 2: Screening for priority pollutant list substances (such as US EPA volatile and/or semi-volatile compounds).

C.7.3 Soil Monitoring

Monitoring Location: As per the 'Baseline Report' or alternative monitoring location(s) as approved by the Agency [Note 1]

Parameter	Monitoring Frequency	Analysis Method/Techniques
Relevant hazardous Substances [Note 2]	Every ten years	Standard Method

Note 1: As per the 'Baseline Report'.

SCHEDULE D: Specified Engineering Works

Specified Engineering Works
Construction of anaerobic digesters and associated tanks and infrastructure including gas engine and flare.
Installation of negative pressure and odour control unit in Building 2.
Installation of general transfer station infrastructure and waste sorting equipment.
Any other works notified in writing by the Agency.

SCHEDULE E: Standards for Digestate Quality

Digestate Quality

The following criteria are deemed a quality standard for the use of digestate as a soil improver if applied to land in accordance with statutory obligations and requirements under any other enactments or regulations. The following criteria should not be deemed as criteria for fertiliser. 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 digestate quality reports to facilitate the end use of the digestate.

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

1. Stability

Table E.1. - 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 fail shall use the average of the triplicate RBP values that each sample test generates.

2. Metals and other pollutants [Note 1, 2 & 3]

Table E.2 – Maximum Metal Concentration Limits

Parameter (mg/kg, dry mass)	Digestate Limit (mg/kg dry matter)
Cadmium (Cd)	1.5
Chromium (Cr)	150
Copper (Cu)	150
Mercury (Hg)	1
Nickel (Ni)	75
Lead (Pb)	150
Zinc (Zn)	400
API [Note 4] and other impurities in incoming industrial sludge	To be agreed for each incoming sludge and as an aggregate

Note 1: These limits should not be taken as an indication of suitability for addition to soil as the cumulative metal additions to soil should be first calculated.
Note 2: Incoming sludges (other than sewage sludges) shall be monitored quarterly (on a client by client basis) for the parameters outlined in this table and also for selenium (Se) and molybdenum (Mo).
Note 3: Monitoring of arsenic (As) is required if waste timber is used in the anaerobic digestion process.
Note 4: Active Pharmaceutical Ingredient (API).

3. Pathogens

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

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

Table E.3 – Pathogenic Organism Content Limits

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

Where n = Number of samples to be tested.

4. Impurities

Table E.4 – Impurity Content Limits

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

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

5. Organic Matter

Table E.5 – Organic Matter Content Limit

Parameter	Digestate Limit
Organic Matter	≥ 20%

6. Miscellaneous

Table E.6 – Maturity Test

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

SCHEDULE F: Annual Environmental Report

Annual Environmental Report Content [Note 1]
Emissions from the installation.
Waste management record.
Resource consumption summary.
Complaints summary.
Schedule of Environmental Objectives and Targets.
Environmental management programme – report for previous year.
Environmental management programme – proposal for current year.
Pollutant Release and Transfer Register – report for previous year.
Pollutant Release and Transfer Register – proposal for current year.
Noise monitoring report summary.
Ambient monitoring summary.
Tank and pipeline assessment report.
Reported incidents summary.
Energy efficiency audit report summary.
Report on the assessment of the efficiency of use of raw materials in processes and the reduction in waste generated.
Report on progress made and proposals being developed to minimise water demand and the volume of trade effluent discharges.
Development/Infrastructural works summary (completed in previous year or prepared for current year).
Reports on financial provision made under this licence, management and staffing structure of the installation, and a programme for public information.
Review of Closure, Restoration & Aftercare Management Plan.
Statement of measures in relation to prevention of environmental damage and remedial actions (Environmental Liabilities).
Environmental Liabilities Risk Assessment Review (every three years or more frequently as dictated by relevant on-site change including financial provisions.
Destination and uses of digestate produced.
Any other items specified by the Agency.

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

Sealed by the seal of the Agency on this the 5th day of July 2018.

PRESENT when the seal of the Agency
Was affixed hereto:

Dr Karen Creed, Authorised Person