Please note that licence Reg. No. W0140-04 was transferred to Starrus Eco Holdings Limited on 13th June 2018. For further information on this please refer to Transfer Notification on the Agency's website.

LICENCE REG NO. W0140-05 WAS REVISED
Please note that licence Reg. no. W0140-05 was reviewed and replaced by the revised licence Reg. no. W0140-05

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

INDUSTRIAL EMISSIONS LICENCE

Licence Register Number:	**W0140-04**
Company Register Number:	**115425**
Licensee:	**Nurendale**
Location of Installation:	**Rathdrinagh, Beauparc, Navan, County Meath**

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

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: W0140-04

Further to notice dated 02/06/2016 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 Nurendale, Rathdrinagh, Beauparc, Navan, County Meath, CRO number 115425

to carry on the following activities

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

at Rathdrinagh, Beauparc, Navan, County Meath subject to the conditions as set out.

GIVEN under the Seal of the Agency this the 8th day of September 2016

PRESENT when the seal of the Agency
was affixed hereto:

Mary Turner, Authorised Person

INTRODUCTION

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

This licence is for the operation of an integrated waste management installation at Rathdrinagh, Beauparc, Navan, County Meath.

Nurendale is licensed to accept household, commercial, industrial, construction, demolition and bio- waste at this installation. The licence also authorises the provision of a civic amenity facility. The licensee is authorised to accept a maximum of 250,000 tonnes of non-hazardous waste per annum.

All waste will be processed within a building or enclosed area. The expanded operation will include the production of refuse derived fuel from municipal waste and the production of compost and/or digestate in a biological treatment facility in an extension to the current site boundary.

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

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

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 Nurendale 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.
Anaerobic digestion	The biological decomposition of biodegradable waste in the absence of oxygen and under controlled conditions by the action of micro-organisms in order to produce digestate and a combustible biogas.
Annually	All or part of a period of twelve consecutive months.
Application	The application by the licensee for this licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
Basic characterisation	A thorough determination, according to standardised analysis and behaviour testing methods, of the properties of 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.

Bioaerosol	An aerosol of biological particles.
Biodegradable waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard, including biowaste.
Biodegradable municipal waste (BMW)	The biodegradable component of municipal waste, typically composed of food and garden waste, wood, paper, cardboard and textiles.
Biogas	Combustible gas generated during the anaerobic digestion of waste and typically containing 50-75% methane, 30-45% carbon dioxide as well as other contaminants such as hydrogen sulphide, oxygen, nitrogen and ammonia.
Biological treatment	Composting, anaerobic digestion, mechanical-biological treatment or any other biological treatment process for stabilising and sanitising biodegradable waste, including pre-treatment processes.
Bio-stabilised residual waste	Residual biodegradable municipal waste that has been treated to achieve an EPA approved biodegradability stability standard (as defined in this licence) prior to landfilling or alternative use agreed.
Biowaste	As defined in section 5(1) of the Waste Management Act 1996 as amended.
BOD	5 day Biochemical Oxygen Demand (without nitrification suppression).
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
COD	Chemical Oxygen Demand.
Commercial Waste	As defined in Section 5(1) of the Waste Management Act 1996 as amended.
Compliance testing	Periodical testing by standard analysis and behaviour-testing methods to determine whether a waste complies with a condition and/or specific reference criteria. The tests focus on key variables and behaviour identified by basic characterisation.
Compost	Stable, sanitised and humus like material rich in organic matter and free from offensive odours resulting from composting of separately collected biowaste and which complies with the compost quality standards outlined in *Schedule E: Standards for Compost Quality* of this licence.
Composting	The autothermic and thermophilic biological decomposition of separately collected biowaste in the presence of oxygen and under controlled conditions by the action of micro-organisms and macro-organisms in order to produce compost.
Construction and demolition (C&D) waste	Wastes that arise from construction, renovation and demolition activities: chapter 17 of the LoW or as otherwise may be agreed.
Containment boom	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.

CRO	Company Register Number.
Daily	During all days of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement on any one day.
Day	Any 24 hour period.
Daytime	0700hrs to 1900hrs.
dB(A)	Decibels (A weighted).
Digestate	The treated output 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.
Environmental damage	As defined in Directive 2004/35/EC.
EPA	Environmental Protection Agency.
Evening Time	1900hrs to 2300hrs.
Existing combustion plant	As defined in Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants.
Facility	Any site or premises used for the purpose of the recovery of disposal of waste.
Fortnightly	A minimum of 24 times per year, at approximately two week intervals.

GC/MS	Gas chromatography/mass spectroscopy.
Green Waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
Groundwater	Has the meaning assigned to it by Regulation 3 of the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010).
ha	Hectare.
Hazardous Substances	Substances or mixtures as defined in Article 3 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures.
Heavy metals	This term is to be interpreted as set out in "Parameters of Water Quality, Interpretation and Standards" published by the Agency in 2001. ISBN 1-84095-015-3.
Hours of operation	The hours during which the installation is authorised to be operational.
Hours of waste acceptance	The hours during which the installation is authorised to accept waste.
ICP	Inductively coupled plasma spectroscopy.
IE	Industrial Emissions.
Incident	The following shall constitute as incident for the purposes of this licence: (i) an emergency; (ii) any emission which does not comply with the requirements of this licence; (iii) any exceedance of the daily duty capacity of the waste handling equipment; (iv) any trigger level specified in this licence which is attained or exceeded; and, (v) any indication that environmental pollution has, or may have, taken place.
Industrial Emissions Directive	Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast).
Industrial waste	As defined in Section 5(1) of the Waste Management Acts 1996 as amended.
Inert Waste	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.

Installation	A stationary technical unit or plant where the activity concerned referred to in the First Schedule of EPA Act 1992 as amended is or will be carried on, and shall be deemed to include any directly associated activity, which has a technical connection with the activity and is carried out on the site of the activity.
Irish Water	Irish Water, Colvill House, 24/26 Talbot Street, Dublin 1.
K	Kelvin.
kPa	Kilopascals.
$L_{Aeq,T}$	This is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T).
$L_{Ar,T}$	The Rated Noise Level, equal to the L_{Aeq} during a specified time interval (T), plus specified adjustments for tonal character and/or impulsiveness of the sound.
Leachate	Any liquid percolating through and emitted from waste accepted or being processed at the installation.
Licensee	Nurendale, Rathdrinagh, Beauparc, Navan, County Meath, CRO Number 115425.
Liquid waste	Any waste in liquid form and containing less than 2% dry matter.
List I	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
List II	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
List of Waste (LoW)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC, as amended by Commission Decision 2014/955/EU and any subsequent amendment published in the Official Journal of the European Community.
Local Authority	Meath 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.
Maturity	Characteristic of a composted material that makes the material fit for purpose and ready for use in a specific application.

Monthly	A minimum of 12 times per year, at intervals of approximately one month.
Municipal waste	As defined in Section 5(1) of the Waste Management Acts 1996 as amended.
New combustion plant	As defined in Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants.
Night-time	2300hrs to 0700hrs.
Noise-sensitive location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other installation or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Oil separator	Device installed according to the International Standard I.S. EN 858-2:2003 (Separator system for light liquids, (e.g. oil and petrol) – Part 2: Selection of normal size, installation, operation and maintenance).
On-site verification of waste	Rapid check methods to confirm that a waste is the same as that which has been subjected to compliance testing and that which is described in any accompanying documents. It may merely consist of a visual inspection of a load of waste before and after unloading at the waste installation.
Organic Fines	The undersize fraction obtained from the mechanical treatment of waste, characterised by a high organic content.
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.
Refuse derived fuel (RDF)	Fuel that has been produced in accordance with a technical standard from pre-treated non-hazardous municipal, commercial or industrial waste.
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.

SCADA	Supervisory Control and Data Acquisition.
Separate collection	The collection of biowaste separately from other kinds of waste in such a way as to avoid the different waste fractions or waste components from waste being mixed, combined or contaminated with other potentially polluting wastes, products or materials.
Sludge	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment, with greater than 2% dry matter.
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.
Solid Recovered Fuel (SRF)	Fuel that has been produced in accordance with a technical standard from pre-treated non-hazardous municipal, commercial or industrial waste.
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 agreed by the Agency.
Storage	Includes holding of waste.
Storm water	Rain water run-off from roof and non-process areas.
Temporary storage	In relation to waste is a period of less than six months as defined in the Waste Management Acts 1996 as amended.
The Agency	Environmental Protection Agency.

TOC	Total organic carbon.
Trade effluent	Trade effluent has the meaning given in the Water Services Act, 2007.
Trigger level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Waste	Any substance or object which the holder discards or intends or is required to discard.
Water Services Authority	Meath County Council.
WEEE	As defined in the European Communities (WEEE) Regulations, 2014 (S.I. No. 149 of 2014).
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.

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

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

The Agency accordingly hereby grants a revised licence to Nurendale 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 W0140-03.

In reaching this decision the Agency has considered the documentation relating to: the existing licence, Register Number W0140-03; the review application, Register Number: W0140-04, and the supporting documentation received from the applicant; the submissions received; the Inspector's Report dated 12th May 2016, the Proposed Determination dated 2nd June 2016; the objection received from the Applicant; the objections and submissions on objections received from other parties; the Technical Committee Report dated 16th August 2016 on the objections to the proposed determination and on the related submission(s) on objections received and has carried out an Environmental Impact Assessment (EIA) and an Appropriate Assessment of the likely significant effects of the licensed activities on European Sites.

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

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the licensed activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at River Boyne and River Blackwater SAC (site code 002299), River Boyne and River Blackwater SPA (site code 004232), Boyne Estuary SPA (site code 004080) and Boyne Coast and Estuary SAC (site code 001957).

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

The reasons for which the Agency determined that a Natura Impact Statement was required are as follows:

- It is proposed to discharge surface water to the southern land drain;
- A constructed wetland has been put in place to treat surface water prior to discharge; however, this has not yet been commissioned for use;
- The southern drain is linked to the Roughgrange River which in turn flows into the River Boyne. The River Boyne forms part of the River Boyne and River Blackwater SAC (Site code 002299).

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 proposed activities, individually or in combination with other plans or

projects, will not adversely affect the integrity of any European Site, in particular River Boyne and River Blackwater SAC (site code 002299), River Boyne and River Blackwater SPA (site code 004232), Boyne Estuary SPA (site code 004080) and Boyne Coast and Estuary SAC (site code 001957) 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.
- There will be no process discharge from the installation to the European Sites.
- Currently run-off from the existing external concrete areas is diverted to a holding tank prior to dispatch off-site for disposal. This run-off will be diverted to the constructed wetland for treatment prior to discharge to the southern land drain when the constructed wetland has been validated by the test programme required under the current licence.
- *Schedule B.2; Emissions to Water*, of this licence, sets emission limit values on emission to water from location SW1. There are no other surface water discharges from the installation to the southern land drain.
- *Schedule C.2.1: Monitoring of Emissions to Water,* of this licence, requires the monitoring of the treated run-off for a range of parameters including BOD, ammonia and metals.
- Condition 3.22.3 of this licence requires contaminated storm water to be diverted for collection if contaminated with fire-water. Condition 5.4 of this licence states that contaminated storm water shall not be discharged to surface water courses.
- Condition 3.27 of this licence requires the any sanitary effluent treatment system to satisfy the criteria set out in the *Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses (p.e < 10)*, or *Wastewater Treatment Manuals: treatment Systems for Small Communities, Business, Leisure Centres and Hotels*, published by the Environmental Protection Agency.
- Condition 3.12.3 of this licence requires the soak pit for the treatment of storm water run-off for the proposed extension to satisfy the criteria set out in the UK Building Research Establishment, Soakaway Design, Digest 365 of 2007, or equivalent as agreed by the Agency.
- *Schedule B.1: Emissions to Air,* of this licence, sets emission limits values on emissions to air from the installation to ensure these emissions do not exceed the ambient standard outside the installation's site boundary.

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Sites: River Boyne and River Blackwater SAC (site code 002299), River Boyne and River Blackwater SPA (site code 004232), Boyne Estuary SPA (site code 004080) and Boyne Coast and Estuary SAC (site code 001957).

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:

Nurendale, Rathdrinagh, Beauparc, Navan, County Meath, CRO Number 115425

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

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

at Rathdrinagh, Beauparc, Navan, County Meath subject to the following 12 Conditions, with the reasons therefor and associated schedules attached thereto.

Part II Schedule of Activities Refused

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

Part III Conditions

Condition 1. Scope

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

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

1.3 For the purposes of this licence, the installation authorised by this licence is the area of land outlined in red on Drawing No. 2009-101-103 of the application. Any reference in this licence to "installation" shall mean the area thus outlined in red. The licensed activities shall be carried on only within the area outlined.

1.4 No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in

(i) a material change or increase in:

- the nature or quantity of any emission;
- the abatement/treatment or recovery systems;
- the range of processes to be carried out;
- the fuels, raw materials, intermediates, products or wastes generated, or

(ii) any changes in:

- site management, infrastructure or control with adverse environmental significance;

shall be carried out or commenced without prior notice to, and without the agreement of, the Agency.

1.5 Waste Acceptance Hours and Hours of Operation

1.5.1 Unless otherwise agreed by the Agency, waste shall be accepted at and waste, compost, digestate and other materials dispatched from the installation only between the hours of 0800 and 1830 Monday to Friday inclusive and 0900 to 1400 on Saturdays.

1.5.2 Waste shall be accepted at the civic amenity facility only between the hours of 0800 and 1830 Monday to Friday inclusive and 0900 to 1600hrs on Saturdays.

1.5.3 Except for the biological treatment (inclusive of the combined heat and power plant) and RDF/SRF manufacturing processes which may operate continuously, or as may be otherwise agreed by the Agency, the installation shall be operated only during the hours of 0730 and 1900 Monday to Friday inclusive and 0830 and 1700 on Saturdays.

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

1.7 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.

1.8 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.

1.9 This licence shall have effect in lieu of the licence granted on 26 March 2009 (Register Number W0140-03).

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

Condition 2. Management of the Installation

2.1 Installation Management

2.1.1 The licensee shall employ a suitably qualified and experienced installation manager who shall be designated as the person in charge. The installation manager or a nominated, suitably qualified and experienced deputy shall be present on the installation at all times during its operation or as otherwise required by the Agency.

2.1.2 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience as required and shall be aware of the requirements of this licence.

2.2 Environmental Management System (EMS)

2.2.1 The licensee shall maintain and implement an Environmental Management System (EMS), 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 Procedures that ensure employee involvement in ensuring compliance with environmental legislation.

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

2.2.2.7 Schedule of Environmental Objectives and Targets.

The licensee shall maintain and implement a Schedule of Environmental Objectives and Targets. The schedule shall, as a minimum, provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production and the prevention, reduction and minimisation of waste and shall include waste reduction targets. The schedule shall include time frames for the achievement of set targets and shall address a five-year period as a minimum. The schedule shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

2.2.2.8 Environmental Management Programme (EMP)

The licensee shall maintain and implement an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.7. The EMP shall include:

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

- the time within which they may be achieved.

The EMP shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

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

2.2.2.9 Documentation

(i) The licensee shall 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

2.2.2.10.1 The licensee shall establish maintain and implement procedures to ensure that corrective and preventative action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for persons initiating further investigation and corrective and preventative action in the event of a reported non-conformity with this licence shall be defined.

2.2.2.10.2 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.

2.2.2.10.3 All corrective and preventative actions shall be documented.

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.

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. The Public Awareness and Communications Programme shall include a specific programme of outreach to interested local residents on matters relating to the prevention of nuisance and other factors at the installation. The programme shall be agreed by the Agency and a report on the programme shall be prepared and submitted to the Agency as part of the AER.

2.2.2.14 Maintenance Programme

The licensee shall maintain and implement a programme for maintenance, inclusive of preventative 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:

3.2.1 Energy efficiency, and

3.2.2 The environmental impact of eventual decommissioning.

3.3 Specified Engineering Works

3.3.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule D: Specified Engineering Works*, of this licence, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.

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

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

(i) A description of the works;

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

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

3.4 Installation Notice Board

3.4.1 The licensee shall 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.

3.4.2 The board shall clearly show:

(i) the name and telephone number of the installation;

(ii) the normal hours of opening;

(iii) the name of the licence holder;

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

(v) the licence reference number; and

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

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

3.5 Installation Security

3.5.1 Security and stockproof fencing and gates shall be maintained at the installation. Subject to the implementation of the decommissioning management plan (as required by condition 10 of this licence), the requirement for such site 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 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:-

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

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

3.6 Installation Roads and Hardstanding

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

3.6.2 The licensee shall maintain an impermeable concrete surface in all areas of the installation associated with the movement, processing, storage and handling of waste, compost, digestate, other materials and emissions. The surfaces shall be concreted and constructed to British Standard 8110 or an alternative as agreed by the Agency. The licensee shall remedy any defect in concrete surfaces within five working days.

3.7 Installation Office

3.7.1 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.

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

3.8 Waste Inspection and Quarantine Areas

3.8.1 A Waste Inspection Area and a Waste Quarantine Area shall be 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 these areas shall be directed to the trade effluent collection & storage system.

3.9 Weighbridge and Wheel Cleaner

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

3.9.2 The wheel cleaner shall be used by all vehicles leaving the installation as required to ensure that no wastewater, waste, trade effluent or storm water is carried off-site. All water from the wheel cleaning area shall be diverted for collection and safe disposal.

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

3.10 Waste treatment infrastructure

3.10.1 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, treatment and combustion infrastructure; and

(v) Air handling and odorous air treatment infrastructure.

3.10.2 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:-

a) 100% duty capacity;

b) 20% standby capacity available on a routine basis;

c) provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.

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

(i) 100% duty capacity; and

(ii) 50% standby capacity.

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

3.10.5 The quantity of residual, food and odour forming waste to be accepted at the installation shall not exceed the daily duty capacity of the equipment at the installation. Any exceedance of this intake shall be treated as an incident.

3.11 Dust/Odour control

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

3.11.2 Installation of odour management infrastructure shall at a minimum include the following:

a) Dust curtains (or equivalent approved by the Agency) shall be maintained on the entry and exit points from all waste buildings. All other doors shall be kept closed at all times.

b) All buildings, vessels and other structures for the storage or treatment of residual, food and odour-forming waste shall be maintained at negative air pressure with ventilation gases being subject to treatment.

c) The biofilter associated with Building 1 shall not be operated.

3.12 Storm Water Management

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

a) the prevention of discharge of contaminated water, process effluent and/or leachate into surface water drains and courses; and
b) the collection/diversion of run-off arising from paved areas.

3.12.2 The licensee shall provide shut-off valves on discharge lines to surface water.

3.12.3 The soak pit or percolation area for the treatment of storm water arising in the vicinity of Building 4 shall be designed and built to satisfy the criteria set out in the UK Building Research Establishment, Soakaway Design, Digest 365 of 2007, or equivalent as agreed by the Agency.

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

3.14 Civic Amenity Facility

3.14.1 The licensee may provide and maintain a Civic Amenity Facility.

3.14.2 The licensee shall provide and maintain appropriate receptacles at the Civic Amenity Facility for the storage of various waste types.

3.14.3 The facility shall not be used as a transfer station for disposal of waste by commercial waste disposal contractors or local authority waste collection vehicles.

3.14.4 All waste deposited in the Civic Amenity Facility shall be:-

a) into a skip;

b) into the hopper of the compactor for disposal;

c) into a designated receptacle for recovery; or

d) in the case where inspection is required, into a designated inspection area.

3.14.5 The licensee shall assign and clearly label each container at the Civic Amenity Facility to indicate its contents.

3.14.6 All residual, food and odour-forming waste accepted at the Civic Amenity Facility shall be removed from this area at the end of the working day.

3.14.7 No individual items of other waste may be stored at the Civic Amenity facility for longer than four months.

3.14.8 The licensee shall have regard to any relevant guidance published by the Agency under the National Hazardous Waste Management Plan.

3.15 Construction and Demolition Waste Recovery

The licensee shall maintain a construction and demolition waste recovery area. This infrastructure shall at a minimum comprise the following: -

a) a fully enclosed building or enclosure capable of containing any significant emissions arising from the treatment and storage of construction and demolition waste;

b) an impermeable concrete slab;

c) collection and disposal infrastructure for all run-off;

d) appropriate bunding to provide visual and noise screening;

e) adequate containment of all stockpiles to minimise dust generation.

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

3.17 In the case of composite sampling of aqueous emissions from the operation of the installation, a separate composite sample or homogeneous sub-sample (of sufficient volume as advised) shall be refrigerated immediately after collection and retained as required for Agency use.

3.18 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned.

3.19 Tank, Container and Drum Storage Areas

3.19.1 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).

3.19.2 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

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

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

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

3.19.6 Liquid residues from the biological treatment processes shall be stored in sealed tanks or vessels that are vented to the odour control system, or by other means agreeable to the Agency, in order to avoid the emission of odorous head gases.

3.19.7 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.

3.20 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.

3.21 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)

3.22 Fire-water Retention

3.22.1 The licensee shall carry out a risk assessment to determine if the activity should have a fire-water retention facility. The licensee shall submit the assessment and a report to the Agency on the findings and recommendations of the assessment within six months of the date of grant of this licence.

3.22.2 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 a suitable risk management programme.

3.22.3 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 risk management programme, 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.

3.22.4 The licensee shall have regard to the Environmental Protection Agency Draft Guidance Note to Industry on the Requirements for Fire-Water Retention Facilities when implementing this condition.

3.23 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 three months from the date of grant of this licence.

3.24 Pipework

3.24.1 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.

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

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

3.25 Groundwater

3.25.1 All wellheads, as shown on Drawing No. PWS/002 of the licence application, shall be adequately protected to prevent contamination or physical damage.

3.25.2 Groundwater wells shall be labelled in situ with their respective identification number and casing elevation in meters above ordinance datum Malin Head (mAOD Malin Head).

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

3.26 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.

3.27 The licensee shall provide and maintain a Wastewater Treatment plant at the installation for the treatment of sanitary effluent arising on-site. Any waste water treatment system and percolation area shall satisfy the criteria, as might be relevant, set out in:

- *Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses (p.e < 10)*, or
- Wastewater Treatment Manuals: treatment Systems for Small Communities, Business, Leisure Centres and Hotels,

published by the Environmental Protection Agency.

3.28 Natural gas, or biodiesel (meeting CEN standard EN14214) shall be used in the boilers on site. In the event of an interruption to the supply of natural gas or biodiesel, an alternative fuel such as gas oil may be used with the prior written agreement of the Agency.

3.29 Virgin wood chip only shall be used as a fuel in the biomass furnace. In the event of an interruption of the supply of virgin wood chip an alternative biomass fuel may be used where agreed by the Agency. No waste shall be burned in the biomass furnace.

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 Unless otherwise specified in the schedules to this licence, 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 (other than gas compression engine and flare):

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

4.2.3 In the case of combustion gases from gas compression engine and flare:

Temperature 273K, Pressure 101.3 kPa, dry gas; 5% oxygen.

4.3 Emission limit values for emissions to waters in this licence shall be interpreted in the following way:

4.3.1 Continuous Monitoring

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

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

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

4.3.2 Composite Sampling

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

(ii) For parameters other than pH and flow, eight out of ten consecutive composite results, based on flow proportional composite sampling, shall not exceed the emission limit value. No individual results similarly calculated shall exceed 1.2 times the emission limit value.

4.3.3 Discrete Sampling

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

4.4 Compost and Digestate Quality Test Results

The digestate quality standard set out in *Schedule E: Standards for Compost and Digestate Quality* of this licence shall apply to any compost or digestate that is proposed to be dispatched for use from the installation and shall be applied after the composting or anaerobic digestion phase (as relevant) and prior to mixing with other materials.

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

4.6 Noise

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

4.7 Dust and Particulate Matter

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

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

Condition 5. Emissions

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

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

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

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

5.5 Other than stormwater, there shall be no direct emissions to ground or groundwater.

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

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

(i) Vermin
(ii) Birds
(iii) Flies
(iv) Mud
(v) Dust
(vi) Litter

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

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

Condition 6. Control and Monitoring

6.1 Test Programmes

6.1.1 Constructed Wetland

a) The licensee shall prepare and implement a test programme for the operation of the constructed wetland. The test programme shall cover at least three growing seasons.

b) The criteria for the operation of the constructed wetland, as determined *inter alia* by the test programme on an ongoing basis, shall be incorporated into the standard operating procedures.

c) An annual report on the test programme shall be provided as part of the AER.

6.1.2 Abatement Equipment

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

b) The programme shall be completed within three months of the commencement of operation of the abatement equipment.

c) The criteria for the operation of the abatement equipment, as determined by the test programme, shall be incorporated into the standard operating procedures.

d) The test programme shall as a minimum:

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

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

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

6.2.1 Analyses shall be undertaken by competent staff in accordance with documented operating procedures.

6.2.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.

6.2.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.

6.2.4 Where any analysis is sub-contracted it shall be to a competent laboratory.

6.3 The licensee shall ensure that:

(i) sampling and analysis for all parameters listed in the Schedules to this licence; and

(ii) any reference measurements for the calibration of automated measurement systems;

shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards that will ensure the provision of data of an equivalent scientific quality shall apply.

6.4 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. The use of alternative equipment, other than in emergency situations, shall be as agreed by the Agency.

6.5 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission/discharge (or ambient conditions where that is the monitoring objective).

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

6.7 All treatment/abatement and emission control equipment shall be calibrated and maintained in accordance with the instructions issued by the manufacturer/supplier or installer.

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

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

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

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

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

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

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

6.15 Litter Control

6.15.1 All loose litter or other waste, placed on or in the vicinity of the installation, other than in accordance with the requirements of this licence, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10:00am of the next working day after such waste is discovered.

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

6.16 Dust/Odour Control

6.16.1 The licensee shall undertake, within one year of the date of grant of this licence and thereafter at a frequency to be agreed or directed by the Agency, and in any case no less than once every three years, an odour impact assessment. The assessment shall identify and quantify all significant odour sources at the installation and shall include an assessment of the suitability and adequacy of the odour control system. Any recommendations arising from the odour impact assessment shall be implemented following agreement by the Agency.

6.16.2 The licensee shall prepare, maintain and implement a programme to demonstrate negative pressure and building envelope integrity throughout all buildings where residual, food or other odour-forming waste is deposited, held, 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.

6.16.3 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.

6.16.4 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.

6.16.5 No chemicals shall be used to mask odour emissions from the installation except where this is satisfactory to the Agency.

6.17 Monitoring Locations

6.17.1 Dust monitoring location AD3 shall, upon commencement of construction of Building 4, be moved to the new eastern boundary of the installation, to a location to be agreed by the Agency.

6.17.2 The licensee shall provide an additional dust monitoring location (to be identified as AD5) at the southern boundary of the installation.

6.17.3 The licensee shall maintain an appropriately scaled drawing showing all the monitoring locations that are stipulated in this licence including any noise-sensitive locations and private wells to be monitored. The drawing shall include the eight-digit national grid reference of each monitoring point.

6.18 Nuisance Monitoring

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

6.19 Vermin and Flies

6.19.1 The licensee shall establish, maintain and implement a programme for the control and eradication of vermin and fly infestations at the installation. This proposal should include as a minimum: operator training, details on the rodenticides and insecticides

to be used, mode and frequency of application and measures to contain sprays within the installation boundary.

6.19.2 No chemicals shall be used for fly control except as part of a programme for the control and eradication of fly infestations.

6.20 Noise

6.20.1 The licensee shall carry out a noise survey of the site operations within one year of the date of grant of this licence and thereafter 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.

6.20.2 During night-time operations:

- outdoor machinery and vehicle movements shall be prohibited;
- reversing sirens or warning signals on vehicles shall be of a flat spectrum (white noise) type;
- any fans or other equipment on the outside of the buildings that are not essential for night-time operation of the installation shall be turned off; and
- all practicable measures shall be taken to limit noise emissions from any remaining outside equipment.

6.21 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.

6.22 The licensee shall, within six months of the date of grant of this licence, develop, establish and maintain a Data Management System for collation, archiving, assessing and graphically presenting the monitoring data generated as a result of this licence.

6.23 Biomass furnace and dryer off-gas

6.23.1 The biomass furnace shall, at all times that off-gases from the thermal dryer are directed to it for treatment, be maintained at a temperature of 850°C with a gas retention time of two seconds unless otherwise agreed by the Agency and if the test programme determines that alternative parameters will ensure compliance with this licence.

6.23.2 There shall be no bypass of air abatement systems for dryer off-gases.

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

Condition 7. Resource Use and Energy Efficiency

7.1 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this licence. The audit shall be carried out in accordance with the guidance published by the Agency, "Guidance Note on Energy Efficiency Auditing". The energy efficiency audit shall be repeated at intervals as required by the Agency.

7.2 The audit shall identify all practicable opportunities for energy use reduction and efficiency and the recommendations of the audit will be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

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

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

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

Condition 8. Materials Handling

8.1 The licensee shall ensure that waste generated in the carrying on of the activity shall be prepared for re-use, recycling or recovery or, where that is not technically or economically possible, disposed of in a manner which will prevent or minimise any impact on the environment.

8.2 Disposal or recovery of waste on-site shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.

8.3 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor to an appropriately authorised facility. 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 The licensee shall ensure that, in advance of transfer to another person, waste shall be classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.

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

8.6 All waste and material storage, including temporary holding, shall be carried out in designated areas which are clearly labelled and appropriately segregated and inside buildings, vessels or appropriately enclosed areas protected as may be appropriate against spillage, leachate run-off and dust and odour emission, unless otherwise agreed by the Agency.

8.7 No waste classified as green list waste in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended) shall be consigned for recovery without the agreement of the Agency.

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

8.9 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.

8.10 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.

8.11 Waste Acceptance and Characterisation Procedures

8.11.1 The licensee shall within three months of the date of grant of this licence develop and thereafter maintain and implement detailed written procedures and criteria for:

(i) basic characterisation, compliance testing, acceptance, on-site verification and handling of all wastes arriving at the installation;

(ii) rejection of unacceptable incoming waste; and
(iii) ensuring adequate storage capacity exists in advance of waste acceptance.

8.11.2 Waste shall be accepted at the installation from known waste producers or new waste producers subject to initial waste profiling and basic characterisation off-site. The written records of this off-site waste profiling and characterisation shall be retained by the licensee for all active waste producers and for a two year period following termination of licensee/waste producer agreements.

8.11.3 Waste shall only be accepted at the installation from local authority waste collection or transport vehicles or holders of 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.

8.11.4 No hazardous waste shall be accepted at the installation except at the civic amenity facility.

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

8.11.6 Waste arriving at the installation shall be inspected and (civic amenity facility excepted) have its documentation checked at the point of entry to the installation and, subject to this verification, shall be weighed, documented and directed to the appropriate waste transfer/treatment building or quarantine area. Each load of waste arriving at a building shall be inspected upon tipping within this building. Only after such inspection shall the waste be processed for disposal or recovery.

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

8.11.8 Any waste deemed unsuitable for processing or storage at the installation and/or in contravention of this licence shall be immediately separated and removed from the installation at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine area to avoid odour nuisance, the attraction of vermin and any other nuisance or objectionable condition.

8.11.9 Unless agreed by the Agency the licensee shall not dispose of any waste that has been accepted at the installation for the purpose of a recovery activity. The condition shall not apply to non-recyclable waste that is separated for disposal by the licensee from the incoming waste.

8.12 Operational Controls

8.12.1 All waste treatment, processing and storage shall be carried out inside a building or enclosed vessel or, in the case of storage of recycled construction and demolition waste, in an appropriately enclosed or covered area.

8.12.2 All residual, food and other odour-forming waste accepted at the installation shall be treated within 72 hours of its arrival at the installation or removed from the installation.

8.12.3 Any organic fines generated at the facility shall be:

- processed and put into the biological treatment chambers within 24 hours of its generation at the facility or
- removed from the installation.

8.12.4 The floor and surfaces of the feedstock bays shall be cleaned from waste debris daily or when cleared of waste and in any event every 72 hours.

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

8.12.6 Scavenging shall not be permitted at the installation.

8.12.7 Other than to allow for vehicle movements building doors shall be kept closed.

8.12.8 Any waste wood which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating and which includes, in particular, such wood waste originating from construction and demolition waste, shall not:

- be used in the production of compost, or
- burned in the biomass furnace.

8.12.9 There shall be no mixing of:

- organic fines (and other feedstocks not conducive to the production of high quality compost and digestate suitable for direct land application), or
- bio-stabilised residual waste,

with

- separately collected biowaste (and other feedstocks intended to be used in the production of high quality compost and digestate suitable for direct land application), or
- compost and digestate that complies with the quality standard set out in *Schedule E: Standards for Compost and Digestate Quality* of this licence or an alternative quality standard.

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

- waste and feedstock intended to be used in the production of high quality compost and digestate suitable for direct land application, and
- organic fines and other waste and feedstocks not conducive to the production of high quality compost and digestate suitable for direct land application.

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

8.12.11 There shall be no storage of biogas at the installation.

8.12.12 Waste acceptance shall not commence at Building 4 without the prior agreement of the Agency.

8.13 Biogas Treatment

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

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

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

8.13.4 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.

8.14 Quality of Compost and Digestate

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

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

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

standard for compost as set out at *Table E.2 Maximum Metal Concentration Limits* of *Schedule E: Standards for Compost and Digestate Quality* of this licence shall be handled as waste and shall not be reused in the process. A record shall be kept on site of all batches that do not meet the relevant quality standard. Where handled as a waste details shall be recorded as per Condition 11 of the licence.

8.14.4 Compost and digestate shall be suitable for agricultural/horticultural improvement or ecological benefit without causing direct or indirect adverse impacts on human, animal or plant health and without causing environmental pollution.

8.14.5 Where an alternative compost or digestate quality standard is agreed by the Agency, the digestate and compost monitoring programme associated with the agreed alternative digestate and compost quality standard may be employed in lieu of the digestate compost quality monitoring requirements of this licence provided that details and results of the alternative monitoring programme are maintained on-site for inspection by the Agency and are reported to the Agency in accordance with the reporting requirements of this licence.

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

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

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

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

8.15 Compost and Digestate Monitoring

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

8.15.2 Compost and 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 compost or digestate is produced per year.

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

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

8.15.3 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.

8.16 Outputs, other than quality compost, of biological treatment

8.16.1 Biologically treated material resulting from the treatment of:

- organic fines, and
- other feedstocks not conducive to the production of high quality compost and digestate suitable for direct land application,

shall be classified and handled as bio-stabilised residual waste.

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

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

8.16.4 In the case of bio-stabilised residual waste, stabilisation means the reduction of the decomposition properties of the waste to such an extent that offensive odours are minimised and the respiration activity after four days is <7mg O2/g DM.

8.16.5 Bio-stabilised residual waste shall meet the requirements of Condition 8.16.4 or an alternative protocol as may be agreed by the Agency based on biological treatment process parameters (e.g. validated residence time and temperature parameters at the treatment installation).

8.17 Bio-stabilised Residual Waste Monitoring

8.17.1 Bio-stabilised residual waste analysis shall be carried out at the frequency specified below, unless otherwise agreed or instructed by the Agency.

(a) Every 500 tonnes of biostabilised residual waste dispatched from the installation.

8.17.2 The frequency of monitoring may be reduced if agreed by the Agency on foot of an alternative protocol being in place that empirically correlates biological treatment process parameters (e.g. validated residence time and temperature parameters at the treatment facility) with respiration activity.

8.18 Wrapping of baled municipal waste

8.18.1 The wrapping of baled municipal waste, RDF, SRF and other waste shall be carried out in such a manner that:

- the waste is fully enclosed by the wrap,
- the emission of odour from the wrapped bales is prevented,
- access by vermin is prevented, and
- the discharge of leachate and other liquids from the wrapped bale is prevented.

8.18.2 The licensee shall maintain and implement a bale identity and tracking system.

8.18.3 Each bale shall be labelled with:

- its date of production,
- its content and LoW code and
- the name of the installation and its licence register number.

8.18.4 Bales of waste shall be dispatched from the installation in order of the date of first production of the bale, as labelled in accordance with condition 8.18.3, unless otherwise agreed by the Agency.

8.18.5 The licensee shall maintain and implement documented operating procedures for the baling and wrapping of waste.

8.18.6 The integrity of each wrapped bale shall be inspected fortnightly and prior to its dispatch from the installation. Any damaged bales (or those that do not meet the requirements of condition 8.18.1 above) shall be repaired within 24 hours of damage being detected. No damaged bales shall be dispatched from the installation. Records of these checks and repairs shall be maintained at the installation.

8.19 Waste storage

Unless otherwise agreed by the Agency, the maximum quantity of waste stored at the installation at any one time shall be restricted by the Waste and Materials Storage Plan.

8.20 Waste and Materials Storage Plan

8.20.1 The licensee shall, within six months of the date of grant of this licence, develop and thereafter maintain and implement a Waste and Materials Storage Plan for all waste, other feedstocks, digestate, compost, recycled materials (whether classified as waste or not) and waste water stored and held at the installation.

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

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

8.20.4 The Waste and Materials Storage Plan shall incorporate:

(i) the recommendations of the fire risk assessment required by condition 9.5 of this licence;

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

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

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

(v) limitations, as may be necessary, on waste storage arrangements to be used during warm weather to prevent odours arising;

(vi) 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);

(vii) details of the drainage system superimposed on the above drawing or plan; and

(viii) a designated fire quarantine area.

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

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

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

(i) clearly labelled;

(ii) appropriately segregated; and

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

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

8.21 Standards Regarding the Supply of Refuse Derived Fuel (RDF) or Solid Recovered Fuel (SRF)

8.21.1 Refuse derived fuel or solid recovered fuel produced at the installation shall be classified and specified in accordance with *I.S. EN 15359:2011 Solid recovered fuels - Specifications and classes* unless otherwise agreed by the Agency.

8.21.2 No refuse derived fuel or solid recovered fuel shall be supplied to a person or organisation for combustion except where there is in place a technical specification. The technical specification shall be prepared, unless otherwise agreed by the Agency, in accordance with *I.S. EN 15359:2011 Solid recovered fuels - Specifications and classes* and shall be agreed between the licensee and the recipient person or organisation.

8.21.3 No solid recovered fuel classified as waste shall be supplied for combustion in any facility or installation that has not been granted a licence or permit under the Industrial Emissions Directive.

8.21.4 The technical specification referred to in Condition 8.21.1 shall set out the criteria to be met in order that combustion of the refuse derived fuel or solid recovered fuel will not lead to failure to comply with the conditions of a licence or permit as may be applicable at the destination incineration or co-incineration facility.

8.21.5 The licensee shall annually, or at a greater frequency if so instructed by the Agency and unless otherwise agreed by the Agency, demonstrate, using a method agreed or specified by the Agency, that the treatment process for the manufacture of refuse derived fuel or solid recovered fuel results in a materially significant net increase in calorific value over the mixed waste introduced to the treatment process.

8.21.6 Bulky metallic and non-metallic parts shall be removed prior to processing waste into RDF/SRF.

8.22 Only waste that has been subject to treatment may be dispatched for disposal at a landfill facility. Treatment shall reflect published EPA guidance as set out in *Municipal Solid Waste - Pre-treatment and Residuals Management*, EPA, 2009. With the agreement of the Agency, this condition shall not apply to:

(i) Inert waste for which treatment is not technically feasible; and

(ii) Other waste for which such treatment does not contribute to the objectives of the Landfill Directive as set out in Article 1 of the Directive by reducing the quality of the waste or the hazards to human health or the environment.

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

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

Condition 9. Accident Prevention and Emergency Response

9.1 The licensee shall maintain a documented Accident Prevention Procedure 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 maintain a documented Emergency Response Procedure that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.

9.3 Incidents

9.3.1 In the event of an incident the licensee shall immediately:

(i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;

(ii) isolate the source of any such emission;

(iii) evaluate the environmental pollution, if any, caused by the incident;

(iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;

(v) identify the date, time and place of the incident;

(vi) notify the Agency and other relevant authorities.

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

9.4 Emergencies

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

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

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

9.4.4 In the event that monitoring of local wells indicates that the installation is having a significant adverse effect on the quantity and/or quality of the water supply this shall be treated as an emergency and the licensee shall provide an alternative supply of water to those affected.

9.5 The licensee shall arrange, within six months of the date of grant of this licence and every three years thereafter or as directed by the Agency, for the completion, by an independent and appropriately qualified consultant, of a fire risk assessment for the installation. The assessment shall examine all relevant factors on site that impinge on fire risk and prevention. The assessment shall have regard to the EPA *Guidance Note: Fire Safety at Non-Hazardous Waste Transfer Stations*, 2013.

9.6 Any recommendations in the fire risk assessment shall be implemented according to a schedule that is satisfactory to the Agency.

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

Condition 10. Decommissioning and Residual Management

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

10.2 Decommissioning Management Plan (DMP)

10.2.1 The licensee shall maintain, to the satisfaction of the Agency, a fully detailed and costed plan for the decommissioning or closure of the site or part thereof.

10.2.2 This plan shall be reviewed and submitted to the Agency for agreement within three months of the date of grant of the licence.

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

10.2.4 The licensee shall have regard to the Environmental Protection Agency's Guidance on Assessing and Costing Environmental Liabilities (2014) and, as appropriate, Guidance on Financial Provision for Environmental Liabilities (2015) and the baseline report, when implementing Condition 10.2.

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

(i) a scope statement for the plan;

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

(iii) a programme to achieve the stated criteria;

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

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

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

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

Condition 11. Notification, Records and Reports

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

(i) an incident or accident that significantly affects the environment;

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

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

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

(v) any incident with the potential for environmental contamination of surface water or groundwater, or posing an environment threat to air or land, or requiring an emergency response by the Local Authority.

The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions.

11.2 The following shall be notified, as soon as practicable after the occurrence of any incident which relates to a discharge to water:

11.2.1 Inland Fisheries Ireland in the case of discharges to receiving waters.

11.2.2 Irish Water and/or the water services authority in the case of discharges upstream of a drinking water abstraction point.

11.3 The licensee shall make a record of any notification made under Conditions 11.1 and 11.2. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident or accident. The record shall include all corrective actions taken to manage the incident or accident, minimise wastes generated and the effect on the environment, and avoid recurrence. In the case of a breach of a condition, measures to restore compliance. The licensee shall, as soon as practicable following notification, submit to the Agency the record.

11.4 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.

11.5 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the installation.

11.6 The licensee shall as a minimum ensure that the following documents are accessible at the site:

(i) the licences relating to the installation;

(ii) the current EMS for the installation including all associated procedures, reports, records and other documents;

(iii) the previous year's AER for the installation;

(iv) records of all inspections, 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, emission points and drainage arrangements at the installation;

(vii) up-to-date Standard Operational Procedures for all processes, plant and equipment necessary to give effect to this licence or otherwise to ensure that standard operation of such processes, plant or equipment does not result in unauthorised emissions to the environment; and

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

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

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

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

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

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

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

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

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

(vi) details of any rejected consignments;

(vii) details of any approved waste mixing;

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

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

(x) the quantity and destination (including name and address of recipient if landspread) of compost and digestate dispatched from the installation.

11.9 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.

11.10 A record shall be kept of each consignment of trade effluent, leachate and/or contaminated storm water removed from the installation. 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 installation;

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

(iv) the results of any waste analyses required under *Schedule C.*4: *Tankered Effluent and Waste Monitoring,* of this licence;

(v) the name and address of the treatment plant to which the trade effluent, leachate and/or contaminated storm water was transported; and

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

11.11 A record shall be kept at the installation of the programme for the control and eradication of vermin and fly infestations at the installation. These records shall include as a minimum the following:

(i) the date and time during which spraying of insecticide is carried out;

(ii) contractor details;

(iii) contractor logs and installation inspection reports;

(iv) details of the rodenticide(s) and insecticide(s) used;

(v) operator training details;

(vi) details of any infestations;

(vii) mode, frequency, location and quantity of application; and

(viii) measures to contain sprays within the installation boundary.

11.12 Waste Recovery Reports

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

11.13 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.

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 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 €14,118 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 commencement of enforcement to the 31st day of December, and shall be paid to the Agency within one month from the date of grant of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Environmental Protection Agency Act 1992 as amended and all such payments shall be made within one month of the date upon which demanded by the Agency.

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

12.2 Environmental Liabilities

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

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

12.2.3 The licensee shall, to the satisfaction of the Agency and prior to annual waste acceptance exceeding 165,000 tonnes and in any event within six months of the date of grant of this licence, make financial provision to cover any liabilities associated with the operation (including closure and decommissioning). The amount of indemnity held shall be reviewed and revised as necessary, but at least annually. Proof of renewal or revision of such financial indemnity shall be included in the annual 'Statement of Measures' report identified in Condition 12.2.1.

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

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

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

SCHEDULE A: Limitations

A.1 Authorised Processes

The following waste related processes are authorised:

(i) Biological treatment of waste and associated processes including:
- waste pre-treatment and preparation for biological treatment by composting and/or anaerobic digestion;
- 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.

(ii) Mechanical treatment of solid waste and associated processes including:
- mechanical separation of material fractions of waste;
- segregation of recyclable fractions of waste;
- operation of a biomass furnace, including treatment of off-gases from thermal drying of waste;
- thermal drying of waste;
- production of solid recovered fuel and refuse derived fuel;
- storage of waste and outputs of waste treatment; and
- processes for the management and mitigation of environmental emissions.

(iii) Mechanical treatment of construction and demolition waste and associated processes including:
- mechanical separation of material fractions and their subsequent treatment or further refinement by mechanical means including crushing, screening, sorting and blending;
- recovery or recycling of construction and demolition waste;
- storage of waste and outputs of waste treatment; and
- processes for the management and mitigation of environmental emissions.

(iv) Reception and storage of waste pending transfer and associated processes including:
- storage of waste not intended for treatment at the installation;
- operation of a civic amenity facility; and
- processes for the management and mitigation of environmental emissions.

(v) Operation of a constructed wetland for the treatment of stormwater prior to discharge.

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

A.2 Waste Acceptance

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

Table A.2 Waste Accepted

Non-hazardous waste type Note 1		**Maximum** Note 2 (Tonnes per annum)
Household, commercial & industrial waste	Including: • mixed residual waste, • mixed dry recyclable waste, • segregated recyclable waste, and • WEEE, but excluding biowaste.	110,000
Biowaste and biodegradable waste for treatment at the biological treatment facility within the installation Note 3		20,000
Construction & demolition waste		120,000
Total		**250,000**

Note 1: Any proposals to accept other compatible non-hazardous waste types must be agreed in advance by the Agency.
Note 2: The limitation on individual non-hazardous waste types may be varied with the agreement of the Agency subject to the total limit for non-hazardous waste staying the same.
Note 3: The limit on waste acceptance at the biological treatment facility within the installation includes biodegradable waste generated at the installation for biological treatment, e.g. fines from the mechanical treatment of waste.

A.3 Limitations on the acceptance of hazardous waste at the civic amenity site

Maximum amount of household hazardous waste and hazardous waste from business customers and other non-household sources including farms that, because of its nature or composition, is similar to household hazardous waste that may be accepted at the civic amenity site	5 tonnes

SCHEDULE B: Emission Limits

B.1 Emissions to Air

B.1.1 Emission Limit Values for Biofilters:

Emission Point Reference No: Biofilter emission (A2-1)

Location: Biological treatment facility (Building 4)
Grid reference X: 297551.50, Y: 269250.70

Minimum discharges height: 15m above ground

Parameter	Emission Limit Value
Odour	700 Ou_E/m^3

B.1.2 Emission Limit Values for the Biomass Furnace at the Refuse Derived Fuel Facility:

Emission Point Reference No: A2-2

Location: Biomass furnace, as indicated on Drawing No. 3 (Rev. C) of the licence application or at an alternative location as may be agreed by the Agency.

Grid reference X: 297519.963, Y: 269092.271

Minimum discharge height: 16m above ground.

Maximum Volume Flow: 21,670Nm^3/hr

Parameter	**Emission Limit Value (mg/Nm^3 11% O_2)**	**Emission limit value (mg/Nm^3, 273.15K, 101.3kPa, corrected for water vapour content, 6% O_2)**	
	Column A	Column B	Column C
	The limit values in Column A are applicable until the limit values in Column B or Column C become applicable	For existing combustion plant from 1/1/2025 Note 1	For new combustion plant from 20/12/2018
Total Particulates	200	50	30
NOx as NO_2	400	400	300
Sulphur dioxide	150	150 Note 2	150 Note 2
CO	800	800	800

Note 1: From 1/1/2030 if rated thermal input of the existing medium combustion plant is less than or equal to 5MW.
Note 2: The limit value does not apply in the case of plants firing exclusively woody solid biomass.

B.1.3 Emission Limit Values for Biogas Combustion

Emission Point Reference Nos: Gas utilisation engines: A2-4 and A2-5

Location: As indicated on Drawing No. 3 (Rev. C) of the licence application or alternative locations as may be agreed by the Agency.

Grid references:

A2-4 X: 297497.9, Y: 269155.9

A2-5 X: 297494.6, Y: 269164.3

Minimum discharge height: 17m above ground.

Maximum flow volume: A2-4: 5,500 Nm^3/hr

A2-5: 3,800 Nm^3/hr

Parameter	**Emission Limit Value (mg/Nm^3 5% O_2)**	**Emission limit value (mg/Nm^3, 273.15K, 101.3kPa, corrected for water vapour content, 15% O_2)**	
	Column A	Column B	Column C
	The limit values in Column A are applicable until the limit values in Column B or Column C become applicable	For existing combustion plant from 1/1/2025 Note 1	For new combustion plant from 20/12/2018
NOx as NO_2	500	190	190
SO_2	250	60	40
CO	1,400	1,400	1,400
Total VOCs (incl. CH_4)	1,000	1,000	1,000

Note 1: The limit values in Column B are applicable from 1/1/2030 if rated thermal input of the existing combustion plant is less than or equal to 5MW.

B.1.4 Emission Limit Values for Dust/Carbon Filters at the refuse derived fuel facility:

Emission Point Reference No: A2-6

Location: As indicated on Drawing No. 3 (Rev. C) of the licence application or as agreed by the Agency.

Minimum discharges height: 14m above ground

Maximum flow volume: 3,800Nm^3/hr

Parameter	**Emission Limit Value**
Odour	500 Ou_E/m^3

B.1.5 Dust Deposition Limits:

Emission Point Reference No: AD1, AD2, AD3, AD4 and AD5

Location: As indicated on Drawing No. 3 (Rev. C) of the licence application or as agreed by the Agency.

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

Emission Point Reference No: SW1, stormwater emission from constructed wetland

Name of Receiving Waters: Southern land drain which connects to the Roughgrange River.

Location: Southern boundary of site

Parameter	Emission Limit Value (mg/l)
BOD	5
Suspended Solids	25
Total ammonia (as NH_4)	1.0

B.3 Emissions to Sewer

There shall be no process effluent emissions to sewer.

B.4 Noise Emissions

Noise sensitive location Reference No: NSL1, NSL2, NSL3, NSL4[Note 1]

Location: As indicated on Drawing No. 3 (Rev. C) of the licence application or as agreed by the Agency.

Daytime dB $L_{Ar,T}$ (30 minutes)	Evening dB $L_{Ar,T}$ (30 minutes)	Night-time dB $L_{Aeq,T}$ (15-30 minutes)
55	50	45 [Note 2]

Note 1: NSL reference no. NSL4 shall be moved once construction of the biological treatment facility (building 4) commences.

Note 2: There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity of any noise-sensitive location.

SCHEDULE C: Control & Monitoring

C.1.1. Control of Emissions to Air

Emission Point Reference Nos: Gas utilisation engines: A2-4 and A2-5

Description of Treatment: Combined heat and power plant - 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 [Note 2]	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.

Note 2: When gas engines are not operational biogas shall be automatically routed to the flare stack for treatment.

Emission Point Reference No: Flare: A2-3

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

Description of Treatment: Biogas Combustion

Control Parameter	Monitoring	Key Equipment [Note 1]
Automatic ignition	Continuous monitoring of biogas levels	Pressure gauge or equivalent approved
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.

Emission Point Reference No: A2-2

Description of Treatment: RDF facility – biomass furnace

Control Parameter	Monitoring	Key Equipment [Note 1]
Feedstock level	Continuous with alarm/call-out	Level detector
Continuous burn	Continuous with alarm/call-out	Flame detector or equivalent approved
Combustion chamber temperature	Continuous with alarm/call-out	Temperature probe
Combustion chamber residence time	Continuous with alarm/call-out	Calculation
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
Biomass furnace operation	Continuous	Standard equipment
Status of air feed supply from thermal dryer (open/closed)	Continuous	Event and time recorder

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: A2-1 (Building 4)

Description of Treatment: Acid scrubbing (where applied)
Bio-filtration

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

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

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

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

C.1.2. Monitoring of Emissions to Air

Emission Point Reference No: **A2-1, A2-6**

Description of Treatment: **Biofilters, carbon filter**

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

Emission Point Reference No: **A2-3, A2-4**

Description of Treatment: **Combined heat and power engines - biogas combustion**

Parameter	Monitoring	Analysis Method/Technique
NOx (as NO_2) **SOx (as SO_2)** **H_2S** **Total VOCs (including CH_4)** **Total non-methane volatile organic compounds**	Monthly for first twelve months of operation and quarterly thereafter	Standard methods
CO	Continuous	

Emission Point Reference No: **A2-2**

Description of Treatment: **RDF facility – biomass furnace**

Parameter	Monitoring	Analysis Method/Technique
Total particulates NOx (as NO_2) SOx (as SO_2) **Arsenic** **Chromium** **Copper** **Lead** **Manganese** **Nickel** **Tin** **Cadmium** **Mercury**	Monthly for first twelve months of operation and quarterly thereafter	Standard methods
CO	Continuous	
Dioxins	Annually during routine operation. Twice during the test programme required under Condition 6.1 of this licence.	

C.2.1. Monitoring of Emissions to Water

Emission Point Reference No: SW 1

Control Parameter	Monitoring	Key Equipment
Visual inspection	Daily	-
Conductivity	Weekly	Meter/probe
Suspended solids	Weekly	Meter/probe
TOC	Weekly	Meter/probe, standard method
Ammonia (as NH4)	Weekly	Standard Method
BOD	Quarterly	Standard Method
Sulphate (as SO_4)	Quarterly	Standard Method
Metals	Annually	Standard Method

C.3.1. Control of Emissions to Sewer

There shall be no process effluent emissions to sewer.

C.3.2. Monitoring of Emissions to Sewer

There shall be no process effluent emissions to Sewer.

C.4 Tankered Effluent, Waste, Compost and Digestate Analysis

Parameter	Monitoring Frequency	Analysis method/technique
Trade effluent sent off-site for disposal: BOD, COD, Metals, Mineral oils, Chloride, Ammonia (as NH_4), Sulphate, Suspended solids, pH	Quarterly	Standard methods
Digestate and compost	Per conditions of this licence	Standard methods
Municipal waste dispatched to landfill: BMW content	As may be specified by the Agency or as required to generate a site specific BMW factor	Waste characterisation or other methods as may be specified
Other [Note 1]		

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

C.5 Ambient Monitoring

Noise Monitoring

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

Ambient Air Monitoring

Monitoring Point Ref. Nos: For dust: AD1, AD2, AD3, AD4 and AD5
For other parameters: To be agreed by the Agency

Location: For dust: As indicated on Drawing No. 3 (Rev. C) of the licence application or as agreed by the Agency.
For other parameters: According to a protocol or at locations to be agreed by the Agency

Parameter	Monitoring Frequency Note 1	Analysis Method/Technique
Dust (mg/m^3/day)	Quarterly Note 1	Bergerhoff Note 2
Bacteria	Quarterly	Grab sample Note 3
Aspergillus fumigatus	Quarterly	Grab sample Note 3

Note 1: Twice during the period May to September, or as otherwise specified in writing by the Agency.

Note 2: Standard method VD12119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute).

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

Groundwater Monitoring

Location: - BH-1 and BH-2 on-site wells and another location to be agreed by the Agency.

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

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

Soil Monitoring

Location: - To be agreed

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

C.6 Monitoring of Biological Treatment Processes

Parameter	Monitoring Frequency	Monitoring equipment/method
• **Composting process**		
Temperature	Continuous	Temperature probe/recorder
Oxygen Content	Daily	Oxygen Probe with recorder
Moisture	Daily	Subjective by operator.
• **Composting process (curing)**		
Temperature	Continuous	Temperature probe
Moisture	Daily	Subjective by operator.
• **Anaerobic digestion process**		
Temperature	Continuous	Temperature probe and recorder
pH	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 CHP and flare systems	Continuous	Pressure gauge and recorder
CHP runtime	Continuous	Time recorder
Flare runtime	Continuous	Time recorder
• **Biogas analysis from anaerobic digestion**		
CH_4	Continuous	Probe with recorder
CO_2	Continuous	Probe with recorder
Total halogenated hydrocarbons	Monthly	To be agreed
H_2S	Monthly	To be agreed
• **General**		
Liquid level in percolate, leachate and liquor tanks	Continuous	Probe with recorder

SCHEDULE D: Specified Engineering Works

Specified Engineering Works
Installation of major waste processing equipment/capacity.
Installation of a biological treatment facility.
Installation of a combined heat and power plant.
Installation of a biomass furnace and commissioning of thermal dryer.
Any other works notified in writing to the Agency.

SCHEDULE E: Standards for Compost and Digestate Quality

Compost and Digestate Quality

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

N, P, K, NH_4-N, NO_3-N, pH and dry matter content shall be measured and reported upon in compost and digestate quality reports in order to facilitate the end use of the compost and digestate.

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

1. Stability

Table E.1- Maximum Respiration Activity

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

2. Metals [Note 1, 2 & 3]

Table E.2 – Maximum Metal Concentration Limits

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

Note 1: These limits should not be taken as an indication of suitability for addition to soil as the cumulative metal additions to soil should be first calculated.

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

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

3. Pathogens

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

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

Table E.3 – Pathogenic Organism Content Limits

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

Where n = Number of samples to be tested.

4. Impurities

Table E.4 – Impurity Content Limits

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

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

5. Organic Matter

Table E.5 – Organic Matter Content Limit

Parameter	Digestate Limit
Organic Matter	≥ 20%

6. Miscellaneous

Table E.6 – Maturity Test

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

SCHEDULE F: Annual Environmental Report

Annual Environmental Report Content Note 1
Reporting Period.
Waste activities carried out at the installation.
Quantity and composition of waste recovered, received and disposed of during the reporting period and each previous year (relevant EWC codes to be used).
Waste recovery report.
Full title and a written summary of any procedures developed by the licensee in the year which relates to the installation operation.
Review of Nuisance Controls.
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.
Review of the programme for the control and eradication of vermin and fly infestations.
Tank and pipeline testing and inspection 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.
Volume of trade effluent/leachate and/or contaminated storm water produced and volume transported off-site.
Development/Infrastructural works summary, including reports on test programmes (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 residuals management plan/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.
Any other items specified by the Agency.

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

Sealed by the seal of the Agency on this the 8th day of September 2016.

PRESENT when the seal of the Agency
Was affixed hereto:

Mary Turner, Authorised Person