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**WASTE LICENCE
Recommended Decision**

Licence Register Number:	W0283-01
Company Register Number:	297717
Applicant	Bord na Mona Plc
Location of Facility:	Drehid Mechanical Biological Treatment Facility, Coolcarrigan, Drummond and Carbury, County Kildare.

INTRODUCTION

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

This licence is for the operation of a Mechanical Biological Treatment (MBT) facility at Coolcarrigan, Drummond and Carbury, Co Kildare. The licence application outlines two possible operational configurations at the facility:

- Configuration A comprising MBT and associated composting plant for bio-stabilisation of residual waste; or,
- Configuration B comprising MBT, composting plant and also anaerobic digestion. Anaerobic digestion will produce biogas which will be utilised to produce electricity and heat in two combined heat and power (CHP) plants.

In order to facilitate the development of the facility under either configuration this licence has been prepared on the basis that configuration B is the scenario that will apply at the facility.

The integrated facility will carry out the following activities:

- (i) Acceptance and treatment of non-hazardous mixed residual municipal, commercial and industrial solid waste to maximise recovery of non-biodegradable waste fractions;
- (ii) Biological treatment of the biodegradable waste fraction by composting to produce bio-stabilised residual waste and compost-like output and by anaerobic digestion to produce bio-gas;
- (iii) Utilisation of bio-gas to generate electricity and heat in two combined heat and power plants (CHP); and,
- (iv) Production of solid recovered fuel (SRF) from the non-recyclable non-biodegradable fraction of the mixed waste.

The quantity of waste to be accepted at the facility is limited to 250,000 tonnes per annum of non-hazardous mixed residual municipal, commercial and industrial solid waste.

Waste must only be received in fully covered vehicles and can only be unloaded inside the appropriate waste reception building. All waste will be processed indoors. The waste processing buildings will operate under negative air pressure and all air will be extracted from the processing buildings and treated by dust filters, scrubbers and bio-filter units before discharge to atmosphere.

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

The licence sets out in detail the conditions under which Bord na Mona Plc will operate and manage this facility.

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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 Acts 1992 to 2013 / Waste Management Acts 1996 to 2012, 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	At approximately twelve-monthly intervals.
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.
BAT	Best Available 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.
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.

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.
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-waste	Biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises and comparable waste from food processing plants.
BOD	5 day Biochemical Oxygen Demand (without nitrification suppression).
CBOD	5 day Carbonaceous Biochemical Oxygen Demand (with nitrification suppression).
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
COD	Chemical Oxygen Demand.
Compost-like output	Bio-stabilised residual waste that has been screened and sanitised in accordance with the Animal By-Product Regulation (EC Regulation No 1069/2009).
Composting	For the purposes of this licence, composting shall mean the autothermic and thermophilic biological decomposition of organic fines and digestate (from anaerobic digestion) in the presence of oxygen and under controlled conditions by the action of micro-organisms and macro-organisms in order to produce a bio-stabilised residual waste.
Containment boom	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
CRO Number	Companies Registration Office Number.
Daily	During all days of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement on any one day.
Day	Any 24 hour period.
Daytime	0700 hrs to 1900 hrs.
dB(A)	Decibels (A weighted).
Digestate	The treated output, sanitised and free from offensive odours, from anaerobic digestion of biodegradable waste including, whether combined or separated, the solid/fibrous and liquid/liquor fractions.
DO	Dissolved oxygen.
Documentation	Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.

Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emission limits	Those limits, including concentration limits and deposition rates, established in <i>Schedule B: Emission Limits</i> , of this licence.
EMP	Environmental Management Programme.
Environmental damage	As defined in Directive 2004/35/EC.
EPA	Environmental Protection Agency.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC and any subsequent amendment published in the Official Journal of the European Community.
Evening Time	1900hrs to 2300hrs.
Facility	Any site or premises used for the purpose of the recovery or disposal of waste.
GC/MS	Gas chromatography/mass spectroscopy.
Green Waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
ha	Hectare.
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 facility is authorised to be operational.
Hours of waste acceptance	The hours during which the facility is authorised to accept waste.
ICP	Inductively coupled plasma spectroscopy.

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 waste	As defined in Section 5(1) of the Waste Management Acts 1996 to 2012.
IPPC	Integrated Pollution Prevention & Control.
K	Kelvin.
kPa	Kilopascals.
$L_{Aeq,T}$	This is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T).
Landfill Directive	Council Directive 1999/31/EC.
$L_{A,T}$	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.
Licence	A Waste Licence issued in accordance with the Acts.
Licensee	Bord na Mona Plc. CRO Number
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.
Local Authority	Kildare 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.
Mechanical-biological treatment	The treatment of residual municipal waste, unsorted waste or any other waste unfit for composting or anaerobic digestion in order to stabilise and reduce the volume of the waste.
Monthly	A minimum of 12 times per year, at intervals of approximately one month.
Municipal waste	As defined in Section 5(1) of the Acts.
Night-time	2300 hrs to 0700 hrs.
Noise-sensitive location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
NMP	Nutrient Management Plan.
Oil separator	Device installed according to the International Standard I.S. EN 858-2:2003 (Separator system for light liquids, (e.g. oil and petrol) – Part 2: Selection of normal size, installation, operation and maintenance).
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	At approximately three – monthly intervals.
Recyclable Materials	Those waste types, such as cardboard, batteries, gas cylinders, etc, which may be recycled.
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 facility toilet, washroom and canteen facilities.
Separate Collection	The collection of bio-waste 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.
Solid Recovered Fuel	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.
Specified emissions	Those emissions listed in <i>Schedule B: Emission Limits</i> , of this licence.
Specified Engineering Works	Those engineering works listed in <i>Schedule D: Specified Engineering Works</i> of this licence.
Stability	Potential biodegradability of organic matter which relates to the rate of reduction for decomposition properties. For the purposes of this licence, stability, as applicable to the outputs of biological treatment, is measured as respiration activity after 4 days of biological treatment (AT4) expressed in units of 'mg O2/g Dry Matter'.
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.
Storm water	Rain water run-off from roof and non-process areas.
The Agency	Environmental Protection Agency.
TOC	Total organic carbon.
Trade effluent	Trade effluent has the meaning given in the Water Services Act, 2007.
Trigger level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Water Services Authority	Kidare County Council.
Weekly	During all weeks of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement in any one week.
WWTP	Waste water treatment plant.

Decision & Reasons for the Decision

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any emissions from the activity will comply with and will not contravene any of the requirements of Section 40(4) of the Waste Management Acts 1996 to 2013.

In reaching this decision the Environmental Protection Agency has considered the documentation relating to the licence application (Register Number: W0283-01). This includes supporting documentation received from the applicant, the report of the Licensing Inspector and the Environmental Impact Assessment (EIA) report contained therein.

It is considered that the Environmental Impact Assessment Report (as included in the Inspectors Report dated (1st October 2013) contains a fair and reasonable assessment of the likely significant effects of the licensed activity on the environment. The assessment as reported is adopted as the assessment of the Agency. Having regard to this assessment, it is considered that the proposed activity, if managed, operated and controlled in accordance with the licence will not result in the contravention of any relevant environmental quality standards or cause environmental pollution.

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Acts 1996 to 2013, the Environmental Protection Agency (the Agency) proposes, under Section 46(8) of the said Acts, to grant this Waste Licence to Bord na Mona Plc., Main street, Newbridge, County Kildare to carry on the waste activities listed below at the Drehid Mechanical Biological Treatment Facility at Coolcarrigan, Drummond and Carbury, County Kildare, subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2013

Class D 8.	Biological treatment not specified elsewhere in this Schedule which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12.
Class D 13.	Blending or mixing prior to submission to any of the operations numbered D 1 to D 12 (if there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, amongst others, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12).
Class D 14.	Repackaging prior to submission to any of the operations numbered D 1 and D 13.
Class D 15	Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of "collection" in section 5(1), pending collection on the site where the waste is produced.

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2013

Class R 3.	Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals.
Class R 4.	Recycling/reclamation of metals and metal compounds.
Class R 5.	Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.
Class R 12.	Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11).
Class R 13.	Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).

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 Waste activities at this facility 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 facility shall be limited as set out in *Schedule A.1: Limitations*, of this licence.
- 1.3 Unless otherwise agreed by the Agency, only the wastes as outlined in *Schedule A.2 Waste Acceptance* of this licence shall be accepted at the facility. **Wastes accepted at the facility shall be suitable for treatment by the activities listed in *Schedule A.1: Waste Processes* of this licence and shall be compatible with the proposed end uses of the treatment outputs.**
- 1.4 For the purposes of this licence, the facility authorised by this licence is the area of land outlined in red on Drawing No. 6301-2700 (issue A) **Site Location Map** of the application. Any reference in this licence to "facility" shall mean the area thus outlined in red. The licensed activities shall be carried on only within the area outlined.
- 1.5 Waste Acceptance Hours and Hours of Operation
 - 1.5.1 Waste shall be accepted at, **or dispatched from**, the facility only between the hours of 0730 and 1815 Monday to Saturday inclusive, **unless otherwise agreed by the Agency**.
 - 1.5.2 Unless **otherwise agreed by the Agency**, or as may be necessary in an emergency, the mechanical treatment process shall be operated only during the hours of 0800 and 0200 Monday to Saturday inclusive.
 - 1.5.3 **The Solid Recovered Fuel Building and the biological treatment process may be operated on a continuous basis (24 hours per day, 7 days per week).**
- 1.6 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.
- 1.7 The facility 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 purposes of waste licensing under the Waste Management Acts 1996 to 2013 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 Prior to commencing waste activities the licensee must satisfy 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 facility. A copy of the consent shall be submitted to the Agency one month

before waste activities commence and a copy shall be made available for inspection by authorised persons of the Agency.

Reason: To clarify the scope of this licence.

Condition 2. Management of the Facility

2.1 Facility Management

2.1.1 The licensee shall employ a suitably qualified and experienced facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced deputy shall be present on the facility at all times during 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. In addition, the facility manager and his/her deputy or deputy shall successfully complete the training programme for a Certificate in Compost Facility Operation or equivalent agreed by the Agency.

2.2 Environmental Management System (EMS)

2.2.1 The licensee shall establish an Environmental Management System (EMS) in advance of the commencement of the activity. The EMS shall be updated on an annual basis.

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

2.2.2.1 Management and Reporting Structure.

2.2.2.2 Schedule of Environmental Objectives and Targets.

The licensee shall prepare 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).

2.2.2.3 Environmental Management Programme (EMP)

The licensee shall, not later than six months from the date of grant of this licence, submit to the Agency for agreement an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.2. Once agreed the EMP shall be established by the licensee. It 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.

2.2.2.4 Documentation

- (i) The licensee shall establish an environmental management documentation system which shall be to the satisfaction of the Agency.
- (ii) The licensee shall issue a copy of this licence to all relevant personnel whose duties relate to any condition of this licence.

2.2.2.5 Corrective Action

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

2.2.2.6 Awareness and Training

The licensee shall establish procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment. Appropriate records of training shall be maintained.

2.2.2.7 Communications Programme

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

2.2.2.8 Maintenance Programme

The licensee shall establish a programme for maintenance of all plant and equipment based on the instructions issued by the manufacturer/supplier or installer of the equipment. The programme shall include procedures for on-going detection and repair of air leaks in the air management system, the odour abatement system and in the waste processing buildings. 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).

2.2.2.9 Efficient Process Control

The licensee shall establish 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 facility, 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 Specified Engineering Works
- 3.2.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule D: Specified Engineering Works*, of this licence, for agreement by the Agency at least two months in advance, of the intended date of commencement of any such works. No such works shall be carried out without prior agreement by the Agency.
- 3.2.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 3.2.3 Following the completion of each 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.
- 3.3 Facility Notice Board
- 3.3.1 The licensee shall, within one month of the date of grant of this licence, provide a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm. The notice board shall be maintained thereafter.
- 3.3.2 The board shall clearly show:
- (iv) the name and telephone number of the facility;
 - (v) the normal hours of opening and operation;
 - (vi) the name of the licence holder;
 - (vii) an emergency out of hours contact telephone number;
 - (viii) the licence reference number; and
 - (ix) where environmental information relating to the facility can be obtained.
- 3.3.3 A plan of the facility clearly identifying the location of each storage and treatment area shall be displayed as close as is possible to the entrance to the facility. 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 facility are made.
- 3.3 Facility Security
- 3.3.1 Security and stock-proof fencing and gates shall be maintained at the facility. The base of the fencing shall be set in the ground. Subject to the implementation of the Decommissioning Management Plan (as required by Condition 10.2 of this licence) the requirement for such facility security may be removed.
- 3.3.2 **The licensee shall maintain a CCTV monitoring system which records all waste vehicle movements into and out of the facility. The CCTV system shall be operated at all times with digital date stamping. Copies of recordings shall be kept on site and made available to the Agency on request.**
- 3.3.3 There shall be no unauthorised public access to the facility.
- 3.3.4 Gates shall be locked shut when the facility is unsupervised.
- 3.3.5 The licensee shall remedy any defect in the gates and/or fencing as follows:-
- (i) A temporary repair shall be made by the end of the working day; and
 - (ii) A repair to the standard of the original gates and/or fencing shall be undertaken within three working days.
- 3.4 Facility Roads and Hardstanding

- 3.3.4 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.
- 3.3.5 The licensee shall provide and maintain an impermeable concrete surface in all areas of the facility used for the handling and storage of waste and emissions. The concrete surface shall be constructed to British Standard 8110 or an alternative as agreed by the Agency.
- 3.5 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.
- 3.6 Facility Office
- 3.6.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 3.6.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.
- 3.7 Weighbridge and Wheel Cleaning
- 3.7.1 The licensee shall provide and maintain a weighbridge and wheel cleaner at the facility.
- 3.7.2 The wheel cleaner shall be used by all vehicles leaving the facility as required to ensure that no wastewater, waste or storm water is carried off-site. All water from the wheel cleaning area shall be directed to a vehicle wash water interceptor sump.
- 3.7.3 **Vehicle wash water in the interceptor sump shall be reused for vehicle washing or sent off-site for disposal.**
- 3.7.4 The wheel cleaner **interceptor sump** shall be inspected on a **weekly** basis. **Silt, stones and other accumulated material shall be removed as required and sent off-site for disposal.**
- 3.8 Waste Inspection and Quarantine Areas
- 3.8.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility.
- 3.8.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other.
- 3.9 Waste Treatment Infrastructure
- 3.9.1 Waste treatment infrastructure shall at a minimum comprise the following:
- (i) Waste acceptance, inspection, storage and treatment/processing areas;
 - (ii) **Separate storage areas for all waste treatment outputs including any screened fractions;** and,
 - (iii) **Leachate and digestate liquor management infrastructure.**
- 3.9.2 Items of plant deemed critical to the efficient and adequate processing of waste at the facility (including *inter alia* waste loading vehicles and ejector trailers) shall be provided on the following basis:-
- (i) 100% duty capacity;
 - (ii) 20% standby capacity available on a routine basis; and
 - (iii) Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.
- 3.9.3 The 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 facility. These capacities shall be based on the licensed waste intake, as per *Schedule A: Limitations*, of this licence.

- 3.9.4 The quantity of waste to be accepted at the facility on a daily basis shall not exceed the duty capacity of the equipment at the facility. Any exceedance of this intake shall be treated as an incident.
- 3.10 Dust and Odour Abatement
- 3.10.1 The licensee shall provide and maintain adequate measures for the control of odours and dust emissions, including fugitive dust emissions, from the facility.
- 3.10.2 Dust curtains (or equivalent agreed by the Agency) shall be maintained on the entry/exit points of the waste treatment buildings. All other doors on the waste treatment buildings shall be kept closed where possible.
- 3.10.3 **All waste treatment buildings shall be adequately sealed and maintained at negative air pressure.**
- 3.10.4 **Air extracted from waste treatment buildings shall be vented through acid scrubbers and biofilters or alternative treatment facilities as may be agreed by the Agency.**
- 3.10.5 Air handling and odour abatement equipment including bio-filter volume/capacity and odour equipment shall be provided on the basis of 100% standby capacity.
- 3.11 Surface Water Management
- Surface water management infrastructure shall be provided and maintained at the facility during construction, operation, closure and decommissioning of the facility. As a minimum, the infrastructure shall be capable of the following:
- (i) the prevention of discharge of contaminated water, process effluent and/or leachate into surface water drains and courses; and
- (ii) the collection/diversion of run-off arising from paved areas.
- 3.12 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 3.13 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned.
- 3.14 Tank, Container and Drum Storage Areas
- 3.14.1 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).
- 3.14.2 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.
- 3.14.3 All drainage from bunded areas shall be treated as contaminated unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal, unless it can be deemed uncontaminated and does not exceed the trigger levels set for storm water emissions under 5.3 of this licence.
- 3.14.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.14.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.
- 3.14.6 **Liquid residues from the biological treatment processes shall be stored in sealed tanks or vessels that are vented through biofilters, or by other means agreeable to the Agency, in order to avoid the emission of odourous head gases.**

- 3.15 The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used, the absorbent material shall be disposed of at an appropriate facility.
- 3.16 Silt Traps and Oil Separators
- The licensee shall, within six months of date of grant of this licence, install and maintain silt traps and oil separators at the facility:
- (i) Silt traps to ensure that all storm water discharges, other than from roofs, from the facility 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) for Class I full retention.
- 3.17 The licensee shall provide shut-off valves on any storm water discharge lines.
- 3.18 Fire-water Retention
- 3.18.1 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.
- 3.18.2 In the event that a significant risk exists for the release of contaminated fire-water, the licensee shall, based on the findings of the risk assessment, prepare and implement, with the agreement of the Agency, a suitable risk management programme. The risk management programme shall be fully implemented within three months of date of notification by the Agency.
- 3.18.3 In the event of a fire or a spillage to storm water, the site storm water shall be diverted to the containment pond. The licensee shall examine, as part of the response programme in Condition 3.18.2 above, the provision of automatic diversion of storm water to the containment pond.
- 3.18.4 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 Conditions 3.18.1, 3.18.2 and 3.18.3 above.
- 3.19 All pump sumps, storage tanks or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach local or remote containment or separators, shall be fitted with high liquid level alarms (or oil detectors as appropriate) within six months from the date of grant of this licence.
- 3.20 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.
- 3.21 Groundwater Wells
- 3.21.1 All groundwater monitoring boreholes shall be adequately protected to prevent contamination or physical damage.
- 3.21.2 Groundwater wells shall be labelled in situ with their respective identification number and casing elevation in meters above ordinance datum Malin Head (mAOD Main Head).
- 3.21.3 Any new groundwater monitoring wells shall be constructed having regard to the guidance given in the Guidance Note Landfill Manual – Guidance Note on Landfill Monitoring, which was published by the Agency.
- 3.22 The licensee shall, within three months of the date of grant of this licence, install in a prominent location on the facility a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.

- 3.23 The licensee shall provide and maintain suitable infrastructure at the facility for the automated monitoring and recording of wind speed, wind direction, temperature and rainfall.

Reason: *To provide for appropriate operation of the facility 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
- (iii) 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.
 - (iv) For flow, no hourly or daily mean value, calculated on the basis of appropriate spot readings, shall exceed the relevant limit value.
 - (v) For all other parameters, no 30 minute mean value shall exceed the emission limit value.
- 4.2 The concentration and volume flow limits for emissions to atmosphere specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of:
- 4.2.1 From non-combustion sources:
Temperature 273K, Pressure 101.3 kPa (no correction for oxygen or water content).
- 4.2.2 From combustion sources:
Temperature 273K, Pressure 101.3 kPa, dry gas, 5% oxygen.
- 4.3 Where the ability to measure a parameter is affected by mixing before emission, then, with agreement from the Agency, the parameter may be assessed before mixing takes place.
- 4.4 Noise
- Noise from the facility shall not give rise to sound pressure levels ($L_{Aeq, T}$) measured at the boundary of the facility which exceed the limit value(s).
- 4.5 Dust and Particulate Matter
- Dust and particulate matter from the activity shall not give rise to deposition levels which exceed the limit value(s).

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

Condition 5. Emissions

- 5.1 No specified emission from the facility 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 facility boundary or any other legitimate uses of the environment beyond the facility boundary.
- 5.3 Storm water
- Unless otherwise agreed by the Agency in circumstances where it is satisfactorily demonstrated that discharge at a higher level will not cause environmental pollution, the trigger levels for storm water discharges from the facility measured at discharge points SW7 and SW8 are:
- (i) Suspended Solids: 35mg/l
 - (ii) Total Ammonia: 0.14 mg/l (as N)
 - (iii) BOD: 2.6 mg/l
- 5.4 Unless otherwise agreed by the Agency, all wastewater arising from waste treatment shall be reused in the process or sent off-site for treatment at a suitably authorised facility.
- 5.5 All sanitary effluent shall be sent off-site for treatment at a suitably authorised treatment facility.
- 5.6 There shall be no direct discharge to surface water or groundwater.
- 5.7 There shall be no clearly audible tonal component or impulsive component in the noise emissions from the facility at noise sensitive locations.
- 5.8 No substance shall be discharged in a manner, or at a concentration, that, following initial dilution, causes tainting of fish or shellfish.
- 5.9 The licensee shall ensure that all or any of the following:
- Vermin
 - Birds
 - Flies
 - Mud
 - Dust
 - Litter

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

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

Condition 6. Control and Monitoring

- 6.1 Test Programme
- 6.1.1 The licensee shall prepare to the satisfaction of the Agency, a test programme for abatement equipment installed to abate emissions to atmosphere. This programme shall be submitted to the Agency in advance of implementation.
 - 6.1.2 The programme, following agreement with the Agency, shall be completed within three months of the commencement of operation of the abatement equipment.
 - 6.1.3 The criteria for the operation of the abatement equipment as determined by the test programme, shall be incorporated into the standard operating procedures.
 - 6.1.4 The test programme shall as a minimum:

- (i) establish all criteria for operation, control and management of the abatement equipment to ensure compliance with the emission limit values specified in this licence; and
 - (ii) assess the performance of any monitors on the abatement system and establish a maintenance and calibration programme for each monitor.
- 6.1.5 A report on the test programme shall be submitted to the Agency within one month of completion.
- 6.2 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring*, of this licence.
 - 6.2.1 Analyses shall be undertaken by competent staff in accordance with documented operating procedures.
 - 6.2.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.
 - 6.2.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.
 - 6.2.4 Where any analysis is sub-contracted it shall be to a competent laboratory.
- 6.3 The licensee shall ensure that:
 - (i) sampling and analysis for all parameters listed in the Schedules to this licence; and
 - (ii) any reference measurements for the calibration of automated measurement systems;shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards that will ensure the provision of data of an equivalent scientific quality shall apply.
- 6.4 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. The use of alternative equipment, other than in emergency situations, shall be as agreed by the Agency.
- 6.5 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission/discharge (or ambient conditions where that is the monitoring objective).
- 6.6 The licensee shall ensure that groundwater monitoring well sampling equipment is available/installed on-site and is fit for purpose at all times. The sampling equipment shall be to Agency specifications.
- 6.7 All treatment/abatement and emission control equipment shall be calibrated and maintained in accordance with the instructions issued by the manufacturer/supplier or installer.
- 6.8 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.
- 6.9 The licensee shall prepare a programme, to the satisfaction of the Agency, for the identification and reduction of fugitive emissions using an appropriate combination of best available techniques. This programme shall be included in the Environmental Management Programme.
- 6.10 The integrity and water tightness of all underground pipes, 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 and within **three** months of the date of grant of this licence. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written

- record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 6.11 The drainage system (i.e., gullies, manholes, any visible drainage conduits and such other aspects as may be agreed) and 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.
- 6.12 An inspection for leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be carried out weekly. A log of such inspections shall be maintained.
- 6.13 Dust and Odour Control
- 6.13.1 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.
- 6.13.2 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.
- 6.13.3 The licensee shall undertake, at a frequency to be agreed or directed by the Agency, in any case to be no less than once every three years, an odour impact assessment. The assessment shall identify and quantify all significant odour sources at the facility and shall include an assessment of the suitability and adequacy of the odour abatement system. Any recommendations arising from the odour impact assessment shall be implemented following agreement by the Agency.**
- 6.14 Storm Water
- 6.14.1 A visual examination of the storm water discharges shall be carried out daily. A log of such inspections shall be maintained.
- 6.14.2 The licensee shall, within three months of the date of grant of this licence, develop and maintain to the satisfaction of the Agency a response programme to address instances where the trigger level values, as set in condition 5.3 of this licence, are achieved or exceeded. This response programme shall include actions designed to ensure that there will be no storm water discharges of environmental significance.
- 6.14.3 In the case of composite sampling of storm water discharges from the facility, a separate composite sample or homogeneous sub-sample (of sufficient volume as advised) shall be retained as required for EPA use.
- 6.15 Noise
- The licensee shall carry out a noise survey of the site operations annually. The survey programme shall be undertaken in accordance with the methodology specified in the 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)' as published by the Agency.
- 6.16 Litter Control
- 6.16.1 All loose litter or other waste, present on or in the vicinity of the facility, 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.
- 6.16.2 The licensee shall ensure that all vehicles delivering waste to, and removing waste and materials from, the facility are appropriately covered.
- 6.17 Nuisance Monitoring
- The licensee shall, on a daily basis, inspect the facility and its immediate surrounds for nuisances caused by vermin, birds, flies, mud, dust and odours. The licensee shall maintain a record of all nuisance inspections.
- 6.18 Pollutant Release and Transfer Register (PRTR)

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

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

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

Condition 7. Resource Use and Energy Efficiency

- 7.1 The licensee shall carry out an audit of the energy efficiency of the facility 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 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.
- 8.2 Waste shall only be accepted at the facility from Local Authority waste collection or transport vehicles or holders of valid waste collection permits, unless exempted or excluded, issued under the Waste Management (Collection Permit) Regulations 2007, or as may be amended. Copies of waste collection permits shall be maintained at the facility.
- 8.3 No hazardous waste or liquid waste shall be accepted at the facility.
- 8.4 **Waste Acceptance and Characterisation Procedures**
The licensee shall develop and maintain detailed written procedures for the acceptance, **storage and processing of all wastes arriving at the facility. The procedures shall, as a minimum, address the relevant requirements of Condition 8.5 of this licence.**
- 8.5 **Operational Controls – Waste Acceptance and Treatment**
8.5.1 Waste shall be accepted at the facility from known customers or new customers subject to initial waste profiling and waste characterisation off-site. The written

- records of this off-site waste profiling and characterisation shall be retained by the licensee for all active customers and for a two year period following termination of licensee/customer agreements.
- 8.5.2 The documentation of waste arriving at the facility shall be **checked at the point of entry to the facility. Subject to its verification, it shall be weighed, recorded and directed to the waste acceptance/quarantine area as appropriate.**
- 8.5.3 Any waste deemed unsuitable for processing at the facility and/or in contravention of this licence shall be immediately separated and removed from the facility at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine area to avoid odour nuisance, the attraction of vermin and any other nuisance or objectionable condition.
- 8.5.4 All waste processing shall **take place** inside an appropriate building.
- 8.5.5 Waste shall be stored in designated areas, protected as may be appropriate against spillage and leachate run-off. The waste shall be clearly labelled and appropriately segregated.
- 8.5.6 All biodegradable or odour-forming waste shall be treated within 24 hours or removed from the facility within 48 hours, except, in the case of waste to be removed from the facility, at Public Holiday weekends. At Public Holiday weekends, such waste shall be removed within 72 hours of its arrival or generation on site.
- 8.5.7 **At the end of each day all waste debris shall be cleaned from the floor and surfaces of the waste reception pit.**
- 8.5.8 All waste **treatment** plant shall be cleared of all waste and washed down at a **frequency to be agreed by the Agency.**
- 8.5.9 All biodegradable and odour-forming waste stored overnight at the facility shall be stored in suitably covered and enclosed containers.
- 8.5.10 No **outputs** from biological **treatment of** waste shall be deposited or stored outside the waste treatment buildings without prior written agreement by the Agency.
- 8.5.11 Scavenging shall not be permitted at the facility.
- 8.6 Operational Controls – **Biogas Treatment**
- 8.6.1 The CHP plant shall be suitable for biogas and shall be protected against the corrosive properties of biogas. In the event of an interruption to the supply of biogas, an alternative fuel such as gas or gas oil may be used if agreed by the Agency.
- 8.6.2 **The use of the flare unit shall be automatically recorded.**
- 8.6.3 **The destruction efficiency of the flare unit shall be determined annually. A record of the test results shall be maintained at the facility for inspection by the Agency.**
- 8.7 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.
- 8.8 The licensee shall ensure that, in advance of transfer to another person, waste shall be classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.
- 8.9 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off.
- 8.10 Fuels shall be stored only at appropriately bunded locations on the facility.

- 8.11 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.
- 8.12 Outputs of Biological Treatment
- 8.12.1 Organic fines shall only be used to make bio-stabilised residual waste and compost-like output.
- 8.12.2 In the case of bio-stabilised residual waste and compost-like output, stabilisation means the reduction of the decomposition properties of the waste to such an extent that offensive odours are minimised and that the respiration activity after four days is <10mg O₂/g DM until 1 January 2016 and <7mg O₂/g DM thereafter.
- 8.12.3 Bio-stabilised residual waste and compost-like output shall be treated as waste and shall be dispatched only for recovery or disposal at a landfill facility unless otherwise agreed by the Agency.
- 8.12.4 Bio-stabilised residual waste and compost-like output shall meet the requirements of Condition 8.12.2 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 facility).
- 8.13 Standards Regarding the Supply of Refuse Derived Fuel or Solid Recovered Fuel
- 8.13.1 Refuse derived fuel or solid recovered fuel produced at the facility 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.
- 8.13.2 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, prepared in accordance with *I.S. EN 15359:2011 Solid recovered fuels – Specifications and classes* unless otherwise agreed by the Agency, agreed between the licensee and the person or organisation.
- 8.13.3 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 Waste Incineration Directive or Industrial Emissions Directive.
- 8.13.4 The technical specification referred to in condition 8.13.1 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.
- 8.13.5 The licensee shall annually, or at a greater frequency if so instructed 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.
- 8.14 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.
- 8.15 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.
- 8.16 Unless agreed by the Agency the licensee shall not dispose of any waste that has been accepted at the facility for the purpose of a recovery activity.

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, in advance of the commencement of the activity, ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.2 The licensee shall, in advance of the commencement of the activity, ensure that a documented Emergency Response Procedure is in place that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.3 Incidents
- 9.3.1 In the event of an incident the licensee shall immediately:
- (i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
 - (ii) isolate the source of any such emission;
 - (iii) evaluate the environmental pollution, if any, caused by the incident;
 - (iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - (v) identify the date, time and place of the incident;
 - (vi) notify the Agency and other relevant authorities.
- 9.3.2 The licensee shall provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency, to:
- (i) identify and put in place measures to avoid recurrence of the incident; and
 - (ii) identify and put in place any other appropriate remedial actions.
- 9.4 Emergencies
- 9.5.1 In the event of a breakdown of equipment or any other occurrence which results in the closure of the **facility or cessation in waste treatment** any waste arriving at, or already collected, at the facility shall be transferred directly to an **alternative authorised facility** until such time as the **facility** is returned to a fully operational status. Such a breakdown event will be treated as an emergency and rectified as soon as possible.
- 9.5.2 All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.

Reason: To provide for the protection of the environment.

Condition 10. Decommissioning and Residuals Management

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

- 10.2.1 The licensee shall **maintain** a fully detailed and costed plan for the closure and decommissioning of the facility or part thereof. This plan shall have regard to the commitments given in the application documentation for Licence Register W0283-01 (as may be varied or notified in the AER and approved in writing by the Agency).
- 10.2.2 The licensee shall submit a **revised** Decommissioning Management Plan, for agreement by the Agency, prior to commencement of waste acceptance at the facility.
- 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 Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision when implementing Conditions 10.2.1 and 10.2.2 above.
- 10.3 The Decommissioning Management Plan shall include, as a minimum, the following:
- (i) a scope statement for the plan;
 - (ii) the criteria that define the successful decommissioning of the activity or part thereof, which ensures minimum impact on the environment;
 - (iii) a programme to achieve the stated criteria;
 - (iv) where relevant, a test programme to demonstrate the successful implementation of the decommissioning plan; and
 - (v) details of the costings for the plan and the financial provisions to underwrite those costs.
- 10.4 A final validation report to include a certificate of completion for the Decommissioning Management Plan, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

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

Condition 11. Notification, Records and Reports

- 11.1 The licensee shall notify the Agency, in writing, one month in advance of the intended date of commencement of the Scheduled Activity.
- 11.2 The licensee shall notify the Agency by both telephone and either email or webform, to the Agency's headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:
- (i) any release of environmental significance to atmosphere from any potential emissions point including bypasses;
 - (ii) any emission that does not comply with the requirements of this licence;
 - (iii) 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
 - (iv) 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.

- 11.3 In the case of any incident relating to discharges to water, the licensee shall notify the Local and Water Services Authority and Inland Fisheries Ireland as soon as practicable after such an incident.

- 11.4 The licensee shall make a record of any incident. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident. The record shall include all corrective actions taken to manage the incident, minimise wastes generated and the effect on the environment, and avoid recurrence. The licensee shall, as soon as practicable following incident notification, submit to the Agency the incident record.
- 11.5 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.
- 11.6 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 facility.
- 11.7 The licensee shall as a minimum keep the following documents at the site:
- (i) the licences relating to the facility;
 - (ii) the current EMS for the facility;
 - (iii) the previous year's AER for the facility;
 - (iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility;
 - (v) relevant correspondence with the Agency;
 - (vi) up-to-date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points;
 - (vii) up-to-date Standard Operational Procedures for all processes, plant and equipment necessary to give effect to this licence or otherwise to ensure that standard operation of such processes, plant or equipment does not result in unauthorised emissions to the environment;
 - (viii) any elements of the licence application or EIS documentation referenced in this licence.
 - (ix) records of all training undertaken by facility staff;
 - (x) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;
 - (xi) details of all nuisance inspections;
 - (xii) the names and qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring;
- This documentation shall be available to the Agency for inspection at all reasonable times.
- 11.8 A record shall be kept at the facility of the programme for the control and eradication of vermin and fly infestations at the facility. These records shall include as a minimum the following:
- (i) the date and time during which spraying of insecticide is carried out;
 - (ii) contractor details;
 - (iii) contractor logs and facility 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 facility boundary.
- 11.9 A record shall be kept of each consignment of process effluent, leachate and/or contaminated storm water removed from the facility. The record shall include the following:
- (i) the name of the carrier;

- (ii) the date and time of removal of process effluent, leachate and/or contaminated storm water from the facility;
 - (iii) the volume of process effluent, leachate and/or contaminated storm water, in cubic metres, removed from the facility on each occasion;
 - (iv) the name and address of the Waste Water Treatment Plant to which the process effluent, leachate and/or contaminated storm water was transported; and
 - (v) any incidents or spillages of process effluent, leachate and/or contaminated storm water during its removal or transportation.
- 11.10 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.
- 11.11 Waste Recovery Reports
- The licensee shall as part of the AER submit a report on the contribution by this facility to the achievement of the recovery targets and strategy stated in national and European Union waste policies.
- 11.12 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 EWC 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 **treated waste and other process outputs** 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; and
 - (viii) the tonnage and EWC Code for the waste materials recovered/disposed on-site.
- 11.13 The licensee shall maintain a written record for each load of waste arriving at and departing from the facility. The licensee shall record the following:
- (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 EWC/HWL 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.
- 11.14 **Each load of waste dispatched to landfill shall be accompanied by documentation verifying the type of treatment carried out on the waste and, in the case of municipal waste or treated municipal waste, its biodegradable content.**
- 11.15 The licensee shall submit report(s) 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.
- 11.16 All reports shall be certified accurate and representative by the facility 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 **€11,935**, 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 Waste Management Acts 1996 to 2013. 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 Waste Management Acts 1996 to 2013 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 **revision**, 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 **agreed** by the Agency in advance of the commencement of the activity. The ELRA shall be reviewed and updated as necessary to reflect any significant change on site, and in any case every three years following initial agreement. Review results are to be notified as part of the AER.

- 12.2.3 The licensee shall, prior to commencement of waste acceptance at the facility and to the satisfaction of the Agency, make financial provision to cover any liabilities associated with the activity (including closure and decommissioning).
- 12.2.4 As part of the measures identified in Condition 12.2.1, the licensee shall, to the satisfaction of the Agency, **maintain** financial provision to cover any liabilities associated with the operation (including closure, restoration and aftercare). 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.
- 12.2.5 The licensee shall revise the cost of closure and decommissioning annually and any adjustments shall be reflected in the maintenance of financial provision made under Condition 12.2.4.
- 12.2.6 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision when implementing Conditions 12.2.2, 12.2.3, 12.2.4 and 12.2.5 above.

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

SCHEDULE A: Limitations

A.1 Waste Processes

The following waste related processes are authorised:

- Acceptance and storage of non-hazardous residual household, commercial and industrial wastes
- Mechanical treatment of accepted wastes
- Biological treatment of residual biodegradable fraction including organic fines.
- Use of bio-gas in combined heat and power plants or in standby flare unit
- Production of solid recovered fuel
- Storage of waste treatment outputs

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



A.2 Waste Acceptance

Table A.2 Waste Categories and Quantities for Treatment

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

WASTE TYPE ^{Note 1}	MAXIMUM (TONNES PER ANNUM)
Non-hazardous mixed solid residual household, commercial and industrial wastes	250,000

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

SCHEDULE B: Emission Limits

B.1 Emissions to Air

Emission Point Reference No: A2-1, A2-2 (Bio-filter outlet stacks)
Location: Bio-filter/odour abatement building No. 1
Volume to be emitted: 100,600 Nm³/hr
Minimum discharge height: 20m above ground

Parameter	Emission Limit Value
Ammonia	50 mg/m ³
Hydrogen sulphide	5 mg/m ³
Mercaptans	5 mg/m ³
Amines	5 mg/m ³



Emission Point Reference No: A2-3, A2-4 (Bio-filter outlet stacks)
Location: Bio-filter/odour abatement building No. 2
Volume to be emitted: 32,500 Nm³/hr
Minimum discharge height: 20m above ground

Parameter	Emission Limit Value
Ammonia	50 mg/m ³
Hydrogen sulphide	5 mg/m ³
Mercaptans	5 mg/m ³
Amines	5 mg/m ³



Emission Point Reference No: A2-5, A2-6 (Bio-filter outlet stacks)
Location: Bio-filter/odour abatement building No. 3
Volume to be emitted: 85,500 Nm³/hr
Minimum discharge height: 20m above ground

Parameter	Emission Limit Value
Ammonia	50 mg/m ³
Hydrogen sulphide	5 mg/m ³
Mercaptans	5 mg/m ³
Amines	5 mg/m ³



Emission Point Reference No: A2-7 (CHP outlet stack)
Location: Biological treatment building No.1
Volume to be emitted: 6,400 Nm³/hr
Minimum discharge height: 20m above ground

Parameter	Emission Limit Value ^{Note 1, 2}
Dust	50 mg/m ³
NOx	500 mg/m ³
SO ₂	300 mg/m ³
CO	500 mg/m ³
H ₂ S	5 mg/m ³
HCl	30 mg/m ³
HF	5 mg/m ³

Note 1: Except as may be varied by agreement with the Agency.

Note 2: Normalised to 5% oxygen in the exhaust gases.

◆

B.2 Emissions to Water

There shall be no emissions to water of environmental significance.

◆

B.3 Noise Emissions

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

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

◆

B.4 Dust Deposition Limits

Level (mg/m ² /day) ^{Note 1}
350

Note 1: 30 day composite sample with the results expressed as mg/m²/day.

SCHEDULE C: Control & Monitoring

C.1.1. Control of Emissions to Air

Emission Point Reference No: A2-1, A2-2 A2-3, A2-4 A2-5, A2-6
(Bio-filter outlet stacks)

Description of Treatment: Acid scrubbing
Humidification
Bio-filtration

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

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

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

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

Emission Point Reference No: A2-7 (CHP outlet stack)
Description of Treatment: Biogas combustion

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

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

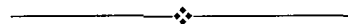


Emission Point Reference No: A2-8 (Biogas Flare)
Description of Treatment: Biogas Combustion

Control Parameter	Monitoring	Key Equipment ^{Note 1}
Automatic ignition	Continuous monitoring of biogas levels	Gas storage tank level monitoring
Temperature/pressure	Flow, temperature and pressure	Flow, temperature and pressure 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 flare unit shall be of an enclosed type design and the combustion air supply shall be controlled so as to achieve a minimum temperature of 900°C at the outlet with 0.3 seconds residence time.

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



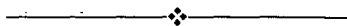
C.1.2. Monitoring of Emissions to Air

Emission Point Reference No: A2-1, A2-2 A2-3, A2-4 A2-5, A2-6
(Bio-filter outlet stacks)

Parameter	Monitoring Frequency	Analysis Method/Technique
Odour	Bi-annual ^{Note 1}	See Note 1
Ammonia	Monthly (at outlet of Biofilter)	Colorimetric indicator tubes ^{Note 2}
Hydrogen sulphide	Monthly (at outlet of Biofilter)	Colorimetric indicator tubes ^{Note 2}
Mercaptans	Monthly (at outlet of Biofilter)	Colorimetric indicator tubes ^{Note 2}
Amines	Monthly (at outlet of Biofilter)	Colorimetric indicator tubes ^{Note 2}

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

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



Emission Point Reference No: A2-7 (CHP outlet stack)

Parameter	Monitoring Frequency	Analysis Method/Technique
Dust	Monthly for the first twelve months of operation and quarterly thereafter	To be agreed with the Agency
NOx		
SO ₂		
CO		
H ₂ S		
HCl		
HF		

C.2 Monitoring of Biological Treatment Process

Parameter	Monitoring Frequency	Analysis Method/Technique
Anaerobic Digestion and Biogas		
Temperature	Continuous	Temperature probe/recorder
pH in digesters	Daily	pH probe
Pressure relief valve status (open/closed)	Continuous on each valve	Event and time recorder
Biogas flow	Continuous	Flow meter and recorder
Biogas pressure in digester system	Continuous	Pressure gauge and recorder
Biogas pressure in storage system	Continuous	Pressure gauge and recorder
Biogas pressure in CHP and flare systems	Continuous	Pressure gauge and recorder
CHP runtime	Continuous	Time recorder
Flare runtime	Continuous	Event and time recorder
Biogas Analysis (prior to use)		
Methane	Continuous	Probe with recorder
Carbon Dioxide	Continuous	Probe with recorder
Total halogenated hydrocarbons	Monthly	To be agreed
Sulphur Compounds	Monthly	To be agreed
Composting		
Temperature	Continuous	Temperature probe/recorder
Oxygen Content	Daily	Oxygen probe/recorder
Moisture	Daily	Subjective by operator
General		
Liquid level in percolate, leachate and liquor tanks	Continuous	Probe with recorder

C.3 Monitoring of Storm Water Emissions

Emission Point Reference No: SW7, SW8

Parameter	Monitoring Frequency	Analysis Method/Technique
Visual Inspection	Daily	Sample and examine for colour and odour.
Temperature	Quarterly	Standard method
Conductivity	Quarterly	Standard method
Dissolved Oxygen	Quarterly	Standard method
pH	Quarterly	Standard method
Chloride	Quarterly	Standard method
Total Ammonia (as N)	Quarterly	Standard method
Total Nitrogen	Quarterly	Standard method
Suspended Solids	Quarterly	Standard method
COD	Quarterly	Standard method
BOD	Quarterly	Standard method
Total Phosphate/Orthophosphate	Quarterly	Standard method
Nitrate	Quarterly	Standard method
Sulphate	Quarterly	Standard method
Metals ^{Note 1}	Annually	Standard method
Other ^{Note 2}	As may be agreed by the Agency	As may be agreed by the Agency

Note 1: Iron, manganese, zinc, lead, copper, mercury, nickel, chromium and cadmium.

Note 2: Any other parameters as may be required by the Agency.

C.4 Ambient Monitoring**C.4.1 Surface Water**

Location Reference No:

SW4 (River Cushaling downstream of storm water discharges)

Parameter	Monitoring Frequency	Analysis Method/Technique
Visual Inspection	Quarterly	Sample and examine for colour and odour.
Temperature	Quarterly	Standard method
Conductivity	Quarterly	Standard method
Dissolved Oxygen	Quarterly	Standard method
pH	Quarterly	Standard method
Chloride	Quarterly	Standard method
Total Ammonia (as N)	Quarterly	Standard method
Total Nitrogen	Annually	Standard method
Suspended Solids	Quarterly	Standard method
COD	Annually	Standard method
BOD	Quarterly	Standard method
Total Phosphate/Orthophosphate	Annually	Standard method
Nitrate	Annually	Standard method
Sulphate	Annually	Standard method
Faecal Coliforms	Annually	Standard Method
Total Coliforms	Annually	Standard Method
Metals ^{Note 1}	Annually	Standard method
Other ^{Note 2}	As may be agreed by the Agency	As may be agreed by the Agency

Note 1: Iron, manganese, zinc, lead, copper, mercury, nickel, chromium and cadmium.

Note 2: Any other parameters as may be required by the Agency.

C.4.2 Dust Deposition and Micro-Organisms

Location: Dust - monitoring stations D2, D5, D8, D9, D10, D11
 Micro-organisms - at upwind and downwind locations to be agreed by the Agency or at any other locations as may be required by the Agency

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

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

Note 2: Enumeration of colonies to be carried out as described in 'Standardised Protocol for the Sampling and Enumeration of Airborne Micro-organisms at Composting Facilities' - The Composting Association (1999) or alternative method and/or frequency as may be agreed by the Agency.

C.5 Groundwater Monitoring

Location: GW2D, GW2S, GW4D, GW3D, GW3S, GW11D

Parameter	Monitoring Frequency	Analysis Method/Technique
Groundwater levels (wells)	Biannually	Level meter
Conductivity	Biannually	Standard Method
Total Ammonia (as N)	Biannually	Standard Method
Chloride	Biannually	Standard Method
pH	Biannually	pH electrode/meter
Sulphate (as SO ₄)	Biannually	Standard Method
Metals/non-metals ^{Note 1}	Annually	Standard Method
Nitrate	Annually	Standard Method
Orthophosphate	Annually	Standard Method
Faecal Coliforms	Annually	Standard Method
Total Coliforms	Annually	Standard Method
Hazardous Compounds ^{Note 2}	Annually	Standard Method

Note 1: Metals and elements to be analysed by AA/ICP should include as a minimum: boron, cadmium, calcium, chromium (total), copper, iron, lead, magnesium, manganese, nickel, potassium, sodium and zinc.

Note 2: 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. Monitoring for the identified hazardous substances shall be carried out at least annually, unless a case for less frequent monitoring is agreed by the Agency

C.6 Noise Monitoring

Location: As agreed by the Agency

Period	Minimum Survey Duration
Daytime	4 hour survey with a minimum of 3 sampling periods at each noise monitoring location. ^{Note 2}
Evening-time	2 hours survey with a minimum of 1 sampling period at each noise monitoring location.
Night-time ^{Note 1}	3 hour survey with 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 within the relevant licence. Typically this will be either 15 minutes or 30 minutes in duration. This applies to day, evening and night time periods.



Schedule D: Specified Engineering Works

Specified Engineering Works
Construction of mechanical treatment building, biological treatment buildings and refining building.
Construction of Solid Recovered Fuel (SRF) Building and SRF Storage Area.
Construction of storm water drainage network and attenuation ponds.
Construction of waste water holding tank.
Any other works notified in writing by the Agency.



SCHEDULE E: Annual Environmental Report

Annual Environmental Report Content ^{Note 1}
Reporting Period.
Waste activities carried out at the facility.
Quantity and composition of waste received, recovered and disposed of during the reporting period and each previous year (relevant EWC codes to be used).
Amount of recyclables, bio-stabilised residual waste, compost-like output and RDF/SRF produced per annum.
Amount of bio-gas utilised per annum
Waste management record.
Waste recovery report.
Emissions from the facility
Resource consumption summary.
Complaints summary.
Schedule of Environmental Objectives and Targets.
Environmental management programme – report for previous year.
Environmental management programme – proposal for current year.
Pollutant Release and Transfer Register – report for previous year.
Pollutant Release and transfer Register – proposal for current year.
Noise monitoring report summary.
Ambient monitoring summary.
Tank and pipeline 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.
Development/Infrastructural works summary (completed in previous year or prepared for current year).
Reports on financial provision made under this licence, management and staffing structure of the installation/facility, and a programme for public information.
Review of Decommissioning 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.

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

