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County Wexford
Ireland

WASTE LICENCE

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| Licence Register Number: | W0195-02 |
| Company Register Number: | 72366 |
| Licensee: | Padraig Thornton Waste Disposal Limited |
| Location of Facility: | Kilmainhamwood Compost Ballynalurgan Kilmainhamwood Kells County Meath |



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WASTE MANAGEMENT ACT 1996 AS AMENDED

WASTE LICENCE

Decision of the Agency, under Section 46(8)(a) of the Waste Management Act 1996 as amended

Waste Licence Register No: **W0195-02**

Further to notice dated the 1st day of October 2013, the Agency in exercise of the powers conferred on it by the Waste Management Act 1996 as amended, for the reasons hereinafter set out in the attached Decision, grants this revised waste licence to Padraig Thornton Waste Disposal Limited, Thorntons Recycling Centre, Killeen Road, Ballyfermot, Dublin 10, CRO Number 72366 to carry on the waste activities set out below at Kilmainhamwood Compost, Ballynalurgan; Kilmainhamwood, Kells, County Meath subject to twelve conditions, as set out in the schedules attached thereto.

A copy of the Decision is attached.

Licensed Waste Activities

Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Act 1996 as amended:

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| 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 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). |

Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act 1996 as amended:

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| 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 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). |

Sealed by the seal of the Agency on this the 26th day of February 2014

PRESENT when the seal of the Agency was affixed hereto:

Mary Turner, ~~Director~~ Authorised Person



INTRODUCTION

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

This licence is for the operation of an indoor composting facility at Ballynalurgan, Kilmainhamwood, Kells, County Meath. The quantity of waste to be accepted at the facility is limited to 40,000 tonnes per annum. Only non-hazardous biodegradable wastes (primarily municipal bio-waste, sewage sludge, industrial sludges, household and commercial waste) can be accepted for composting at this facility.

Wastes must only be received in fully covered vehicles and can only be unloaded inside the appropriate reception building. All waste will be composted in composting bays with forced aeration from underfloor aeration channels. Air will be extracted from the composting building by means of extraction fans and will be treated by a scrubber and biofilter system before discharge to atmosphere.

The licensee must manage and operate the facility to ensure that the activities do not cause environmental pollution. 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 Padraig Thornton Waste Disposal Limited 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 Act 1992, as amended / Waste Management Act 1996, as amended unless otherwise defined in the section.

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| Adequate lighting | 20 lux measured at ground level. |
| AER | Annual Environmental Report. |
| Aerosol | A suspension of solid or liquid particles in a gaseous medium. |
| Agreement | Agreement in writing. |
| Annually | 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. |
| Bio-stabilised residual waste | Residual biodegradable municipal waste including organic fines 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. |

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| BOD | 5 day Biochemical Oxygen Demand (without nitrification suppression). |
| CEN | Comité Européen De Normalisation – European Committee for Standardisation. |
| COD | Chemical Oxygen Demand. |
| Compost | Stable, sanitised and humus like material rich in organic matter and free from offensive odours resulting from composting, of separately collected bio-waste which complies with the compost quality standards outlined in <i>Schedule E: Standards for Compost Quality</i> , of this licence. |
| Composting | The autothermic and thermophilic biological decomposition of separately collected bio-waste in the presence of oxygen and under controlled conditions by the action of micro-organisms and macro-organisms in order to produce compost. |
| Condition | A condition of this licence. |
| 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). |
| 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. |
| Emergency | Those occurrences defined in Condition 9 of 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. |

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| 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 of disposal or waste. |
| Forced aeration | The supply of air to a compost pile, by pumping (positive pressure) or by sucking air through the composting material (negative pressure). |
| Fortnightly | A minimum of 24 times per year, at approximately two week intervals. |
| GC/MS | Gas chromatography/mass spectroscopy. |
| Green Waste | Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation. |
| 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. |
| HFO | Heavy Fuel Oil as defined in Council Directive 1999/32/EC and meeting the requirements of S.I. No. 119 of 2008. |
| 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. |

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| 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 Act 1996, as amended. |
| Inert waste | Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater. |
| In-vessel composting | Different composting methods in which material for composting is contained in a building, reactor or vessel. |
| 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 | Padraig Thornton Waste Disposal Limited, Unit S3B, Henry Road, Park West Business Park, Dublin 12. CRO Number 72366. |
| Liquid waste | Any waste in liquid form and containing less than 2% dry matter. |

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| 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 | Meath County Council. |
| Maintain | Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately. |
| Mass flow limit | An emission limit value expressed as the maximum mass of a substance that can be emitted per unit time. |
| Mass flow threshold | A mass flow rate above which a concentration limit applies. |
| Maturity | Characteristic of a composted material that makes the material fit for purpose and ready for use in a specific application. |
| Mechanical-biological treatment | The treatment of residual municipal waste, unsorted waste or any other bio-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. |

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| 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. |
| Sludge | The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment, with greater than 2% dry matter. |
| 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. |
| 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. |
| 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 | Meath 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. |

Windrow An elongated pile of composting material that is periodically turned.

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 Act 1996, as amended.

In reaching this decision the Environmental Protection Agency has considered the documentation relating to the current licence, Register Number: W0195-01, and the review application, Register Number: W0195-02. This includes supporting documentation received from the applicant, all submissions and objections received and the reports of its Inspectors 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 17 July 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.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on European Sites. In this context, particular attention was paid to the European site at Killyconny Bog (Cloghbally) [site code: 6] and the Agency considered, for the reasons set out below, that the activity is not directly connected with or necessary to the management of this site as European Site and that it can be excluded on the basis of objective scientific information, that the activity, individually or in combination with other plans or projects, will have a significant effect on a European site, and accordingly the Agency determined that an Appropriate Assessment of the activity is not required. It has been determined that this facility does not have the potential for significant effects on any European site due to the absence of significant environmental emissions, the absence of pathways and the distance to European sites mitigates against the potential for significant effects on any European site.

Given the nature and location of the proposed expanded activity, and the potential sources, pathways and receptors, there will be no resulting impact on the designated European Site(s) either as a result of the development or in combination with any other developments.

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act 1996, as amended the Environmental Protection Agency (the Agency) under Section 46(8) of the said Acts, hereby grants this Waste Licence to Padraig Thornton Waste Disposal Limited, Unit S3B, Henry Road, Park West Business Park, Dublin 12, to carry on the waste activities listed below at Kilmainhamwood Compost, Ballynalurgan, Kilmainhamwood, Kells, County Meath, 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 Act 1996, as amended

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| 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 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 Act 1996, as amended

| | |
|--------------------|---|
| 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 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: Waste Processes*, 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 for the production of compost or bio-stabilised residual waste.
- 1.4 For the purposes of this licence, the facility authorised by this licence is the area of land outlined in red on Figure 2B 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 Operations
 - 1.5.1 Waste shall be accepted at the facility only between the hours of 08:00 to 18:00 Monday to Friday inclusive and 08:00 to 13:00 on Saturdays.
 - 1.5.2 Waste shall not be accepted or handled at the facility on Sundays or Bank Holidays without prior agreement by the Agency.
 - 1.5.3 Waste shall be handled at the facility only between the hours of 08:00 to 18:00 Monday to Friday inclusive and 08:00 to 13:00 on Saturdays.
- 1.6 Waste Types and Additives
 - 1.6.1 Unless otherwise agreed by the Agency, wastes accepted for biological treatment/composting at the facility shall only be:
 - (i) Non-hazardous;
 - (ii) Conducive to biological treatment/composting;
 - (iii) Able to facilitate the achievement of the output quality standards specified in *Schedule E: Standards for Compost Quality*, of this licence or an alternative quality standard for compost as may be agreed by the Agency; and,
 - (iv) Compatible with the proposed end use.
 - 1.6.2 Any waste wood which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating and which includes, in particular, such wood waste originating from construction and demolition waste shall not be permitted for use in the biological treatment/composting process.
- 1.7 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.
- 1.8 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.
- 1.9 This licence is for purposes of waste licensing under the Waste Management Act 1996, as amended only and nothing in this licence shall be construed as negating the licensee's statutory obligations, or requirements under any other enactments or regulations.
- 1.10 This licence is being granted in substitution for the waste licence granted to the licensee on 21 July 2005 (Register No: W0195-02). The previous waste licence (Register No: W0195-01) is superseded by this licence.

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.

2.2 Environmental Management System (EMS)

- 2.2.1 The licensee shall maintain an Environmental Management System (EMS). 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 maintain a Schedule of Environmental Objectives and Targets. The schedule shall, as a minimum, provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production and the prevention, reduction and minimisation of waste 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 maintain 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 maintained 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 maintain 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 maintain 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 maintain 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 maintain 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 maintain 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 ongoing detection and repair of air leaks in the air management system, the odour management system and in the waste processing building. 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 maintain 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 facility 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;
 - (iii) Any other information requested in writing by the Agency; and,
 - (iv) Certification by a competent validator that the works, as required by this licence, have been satisfactorily completed.
- 3.3 Facility Notice Board
- 3.3.1 The licensee shall maintain 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:
- (i) the name and telephone number of the facility;
 - (ii) the normal hours of opening;
 - (iii) the name of the licence holder;
 - (iv) an emergency out of hours contact telephone number;
 - (v) the licence reference number; and
 - (vi) where environmental information relating to the 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.
- 3.4 Facility Security
- 3.4.1 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.
- 3.4.2 Gates shall be locked shut when the facility is unsupervised.
- 3.4.3 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.

3.5 Facility Roads and Hardstanding

- 3.5.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.
- 3.5.2 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 compost outputs. The concrete surface shall be constructed to British Standard 8110 or an alternative as agreed by the Agency. The licensee shall remedy any defect in concrete surfaces within five working days.

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

3.7 Facility Office

- 3.7.1 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.
- 3.7.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.

3.8 Weighbridge and Wheel Cleaning

- 3.8.1 The licensee shall maintain a weighbridge at the facility.
- 3.8.2 The licensee shall provide and maintain wheel cleaning equipment at the facility. The wheel cleaning equipment shall be used by all vehicles leaving the facility as required to ensure that no wastewater, waste or storm water is carried off-site. Unless otherwise agreed by the Agency all water from the wheel cleaning area shall be reused in the composting process.

3.9 Waste Inspection and Quarantine Areas

- 3.9.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility.
- 3.9.2 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.

3.10 Compost Facility

- 3.10.1 Appropriate infrastructure for the storage and composting of waste shall be maintained at the facility. This infrastructure shall at a minimum comprise the following:
 - (i) Waste acceptance/inspection and quarantine areas;
 - (ii) Processing area used for biological treatment;
 - (iii) Storage area(s) for composting outputs including any screened fractions;
 - (iv) Storage areas, tanks, pipelines for the collection, storage or distribution of leachate or liquid wastes; and,
 - (v) Air handling/odour abatement equipment.

3.11 Waste Processing Plant

- 3.11.1 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.
- 3.11.2 The licensee shall prepare and maintain a report 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. A copy of the report shall be retained on-site.
- 3.11.3 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.
- 3.12 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.
- 3.13 **Odour Abatement**
- The licensee shall maintain an odour abatement system at the facility which satisfies the following requirements:
- (i) An air management system to ensure no significant escape of odours or dust from the building and to include negative pressure throughout the building;
 - (ii) Enclosed composting bays;
 - (iii) Acid scrubber unit; and
 - (iv) Biofilter(s) of appropriate size and structure.
- 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 Condition 5.3.
- 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.
- 3.15 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 maintain silt traps and oil separators at the facility to ensure that all storm water discharges, other than from roofs, from the facility pass through a silt trap and oil separator in advance of discharge. The silt traps and oil separator shall be in accordance with I.S. EN-858-2: 2003 (separator systems for light liquids).
- 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 Any new groundwater monitoring wells shall be constructed having regard to the guidance given in the Guidance Note *Landfill Manual – Guidance Note of Landfill Monitoring*, which was published by the Agency.
- 3.21.2 Groundwater wells shall be labelled in situ with their respective identification number and their casing elevation in meters above ordinance datum Malin Head (mAOD Main Head).
- 3.21.3 All groundwater monitoring boreholes at the facility shall be adequately protected to prevent contamination or physical damage.
- 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 to the public 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 and rainfall.
- 3.24 The licensee shall maintain a Wastewater Treatment Plant at the facility for the treatment of sanitary effluent arising on-site. Any waste water treatment system and percolation area shall satisfy the criteria set out in the Code of Practice *Wastewater Treatment and Disposal Systems Serving Single Houses* (p.e < 10), published by the Environmental Protection Agency.

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

Condition 4. Interpretation

4.1 Interpretation of Compost Quality Test Results

The limits as specified in *Schedule E: Standards for Compost Quality*, of this licence shall apply to compost immediately after the composting phase and prior to mixing with other materials. No sample shall exceed 1.2 times the quality limit values specified in *Schedule E: Standards for Compost Quality*, of this licence.

4.2 Failure of a Compost Quality Standard Parameter

4.2.1 A test failure shall be treated as an incident. The licensee shall, inter alia, evaluate any feedstock and/or process changes relevant to the sampled batch of material prior to the sampling date. The licensee shall specify the corrective actions to be taken, which shall include any re-sampling or reuse of the material back into the composting process.

4.2.2 The process subject to the failed test result shall be tested against all parameters in *Schedule E: Standards for Compost Quality*, of this licence in order to re-validate the process in question. The process shall be deemed to be stable and conducive to standard compliance only after three successive batches have passed through the process. The normal testing programme shall then be re-instated. The licensee shall notify the Agency when the process has been re-validated and considered to be in compliance with the requirements of this condition.

4.3 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).

There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the facility boundary.

4.4 Dust and Particulate Matter

Dust and particulate matters 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

The trigger levels for storm water discharges from the facility are:

- (i) Suspended Solids: 25mg/l
- (ii) Total Ammonia: 0.14 mg/l (as N)
- (iii) BOD: 2.6 mg/l,

unless otherwise agreed by the Agency in circumstances where it is satisfactorily demonstrated that discharge at a higher level will not cause environmental pollution.

5.4 Unless otherwise agreed by the Agency all leachate shall be reused in the composting process. There shall be no discharge of leachate to surface water.

- 5.5 There shall be no direct discharge to groundwater.
- 5.6 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 and to provide for Section 52 of the Waste Management Act 1996, as amended.*

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 within six months of the date of grant of this licence. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 6.11 The 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/Odour Control
 - 6.13.1 Dust curtains or equivalent mechanisms shall be maintained on the entry/exit points of the waste processing building to avoid the egress of dust. All other doors of the waste processing building shall be kept closed where possible.
 - 6.13.2 The licensee shall maintain adequate measures for the control of odours and dust emissions, including fugitive dust emissions, from the facility.
 - 6.13.3 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.
 - 6.13.4 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.

6.14 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 emissions of environmental significance.

6.15 Noise

The licensee shall carry out a noise survey of the site operations on a quarterly basis. 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 Bio-aerosol Monitoring

The licensee shall within one month of the date of grant of this licence and every three years thereafter consult with the Agency to determine whether an alternative technique or methodology should be utilised for bio-aerosol monitoring.

6.19 Compost Monitoring

6.19.1 Unless otherwise agreed or directed by the Agency, compost analysis shall be carried out at the frequency as specified below:

- (i) Every six months where more than 500 and up to 1,000 tonnes of compost is produced per year.
- (ii) At intervals of at least every 1,000 tonnes of compost produced or every 3 months, whichever comes first, where more than 1,000 and up to 10,000 tonnes of compost is produced per year.
- (iii) Every month where more than 10,000 tonnes of compost is produced per year.

6.19.2 If the composition of the feedstock changes significantly, or if significant modifications are made to the process, the process must be re-validated by testing batches until three successive batches achieve the relevant standard.

6.20 Quality of Compost

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

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

- 6.20.3 Treated bio-waste that fails to meet the quality standard for compost as set out in Tables E.1 Maximum Respiration Activity, E.3 Pathogenic Organism Content Limits, E.4 Impurity Content Limits and E.5 Organic Matter Content Limit of *Schedule E: Standards for Compost Quality*, of this licence may be reused in the process or treated as waste. Treated bio-waste that fails to meet the quality standard for compost as set out in Table E.2 Maximum Metal Concentration Limits of *Schedule E: Standards for Compost Quality*, of this licence shall be handled as waste and shall not be reused in the process. A record shall be kept on site of all batches that do not meet the relevant quality standard. Where handled as a waste details shall be recorded as per Condition 11.11 of this licence.
- 6.20.4 Compost shall be suitable for agricultural/horticultural improvement or ecological benefit without causing direct or indirect adverse impacts on human, animal or plant health and without causing environmental pollution.
- 6.20.5 Where an alternative compost quality standard is agreed by the Agency, in accordance with Condition 6.20.2 above, the compost monitoring programme associated with the agreed alternative compost quality standard may be employed in lieu of the compost quality monitoring requirements of this licence provided that details and results of the alternative monitoring programme are maintained on-site for inspection by the Agency and are reported to the Agency in accordance with the reporting requirements of this licence.
- 6.21 Bio-stabilised Residual Waste
- 6.21.1 Organic fines, when treated at the facility, shall only be used to make bio-stabilised residual waste.
- 6.21.2 Bio-stabilised residual waste shall be treated as waste and shall be dispatched only for recovery or disposal at a landfill facility unless otherwise agreed by the Agency.
- 6.21.3 Where bio-stabilised residual waste is to be deposited in a landfill it shall meet the following standard:
- (i) Decomposition properties of bio-waste are reduced to such an extent that offensive odours are minimised; and,
 - (ii) Respiration Activity after 4 days (AT4) is < 10 mg O₂/g Dry Matter (until 1 January 2016) and < 7 mg O₂/g Dry Matter thereafter.
- 6.22 Bio-stabilised Residual Waste Monitoring
- 6.22.1 Bio-stabilised residual waste analysis shall be carried out at the frequency specified below, unless otherwise agreed or instructed by the Agency:
- (i) Every 500 tonnes of bio-stabilised residual waste dispatched from the facility.
- 6.22.2 The frequency of monitoring may be reduced if agreed by the Agency on foot of an alternative protocol being in place that empirically correlates biological treatment process parameters (e.g. validated residence time and temperature parameters at the treatment facility) with respiration activity.
- 6.23 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.
- 6.24 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.

- 6.25 Examination of the operation and maintenance of the air emissions abatement system.
- 6.25.1 The licensee shall, for a period of three months to be agreed by the Agency and within six months of the date of grant of this licence, carry out an examination of the effectiveness of the air emissions abatement system installed at the facility. The analysis shall include at least the following:
- analysis and characterisation of the air emission extracted for treatment in the abatement system (inputs), including building air and air extracted from the closed composting tunnels to the extent that these can be representatively sampled separately;
 - analysis and characterisation of the biofilter inlet and outlet gases;
 - a mass balance of air flows and contaminants.
- 6.25.2 Analysis and characterisation under this condition shall be carried out fortnightly.
- 6.25.3 In addition to the parameters specified in *Schedule B.1 Emissions to Air*, of this licence, the licensee shall include TOC and dust/particulates analysis in the characterisation of the air streams specified in Condition 6.25.1 and biological analysis (bacteria and *Aspergillus fumigatus*) in the characterisation of the biofilter inlet and outlet gases.
- 6.25.4 All analysis of samples, unless otherwise agreed by the Agency, shall be carried out in an appropriate accredited laboratory.
- 6.25.5 The examination referred to in this Condition (Condition 6.25) shall be carried out every 3 years or an alternative frequency as may be agreed by the Agency.

Reason: *To provide for the protection of the environment by way of treatment and monitoring of emissions and to provide for Section 52 of the Waste Management Act 1996, as amended.*

Condition 7. Resource Use and Energy Efficiency

- 7.1 The licensee shall, as required by the Agency, carry out an audit of the energy efficiency of the facility. 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 at the facility 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
 - 8.4.1 The licensee shall maintain detailed written procedures for the acceptance and handling of all wastes at the facility. These procedures shall provide for the characterisation of wastes as necessary to demonstrate compliance with the requirements of Condition 1.6 of this licence.
 - 8.4.2 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.
 - 8.4.3 The licensee shall ensure that incoming waste (and intermediate compost) is stored in a manner to prevent nuisance from odour, dust vermin birds etc.
 - 8.4.4 All waste processing shall take place inside an appropriate building.
 - 8.4.5 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.
 - 8.4.6 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 Operational Controls
 - (i) Scavenging shall not be permitted at the facility.
 - (ii) Gates shall be locked shut when the facility is unsupervised.
 - (iii) The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
 - (iv) Fuels shall be stored only at appropriately bunded locations on the facility.
 - (v) All leachate from composting operations shall be collected and re-used in the composting process where possible. Leachate from the composting operations that is not re-used on-site shall be tankered off-site for appropriate treatment or re-use at a location to be agreed in advance by the Agency.
 - (vi) The licensee shall ensure that all entry and exit points for the waste storage area, waste processing building or enclosed structure for biological treatment remain closed at all times other than to facilitate the delivery/removal of wastes from that structure.
 - (vii) To provide for indoor aerobic composting, the licensee shall provide the composting material with: a 5% minimum concentration of oxygen within the pore spaces, appropriate moisture levels, pH 6.0-9.0, appropriate C:N ratio.
 - (viii) The licensee shall on a daily basis monitor and record the temperature and the moisture content of the material at a number of locations to be agreed in advance by the Agency.

- 8.6 Where sludge or slurry is being accepted at the facility the licensee shall ensure that an enclosed tank is provided for storage of the sludge or slurry and to provide a safe coupling system for loading/unloading from road tankers.
- 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 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.
- 8.11 No waste shall be deposited or stored outside the waste processing building without prior written agreement by the Agency.
- 8.12 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.
- 8.13 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.
- 8.14 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 14 June 2006, on shipments of waste and associated national regulations.
- 8.15 While awaiting collection, compost shall be stored in areas protected against uncontrolled run-off and nuisance formation.
- 8.16 The licensee shall ensure that where:
- (i) Organic fines; and
 - (ii) Separately collected biodegradable waste
- are stored, processed or composted in the same building, the areas used to store materials (i) and (ii) and their treated outputs shall be physically separated from each other by a wall or such substantial physical barrier to prevent cross contamination and mixing. The area used to store or process each of these waste types and their treated outputs shall be designated and adequately labelled to indicate whether only: (i) organic fines, or (ii) separately collected biodegradable waste, can be stored there.
- 8.17 There shall be no mixing of:
- (i) organic fines or outputs from the treatment of this waste; with
 - (ii) separately collected biodegradable waste or with the compost derived from separately collected biodegradable waste.
- 8.18 Leachate and other liquors arising separately from the treatment of biodegradable waste and organic fines, where these are to be reintroduced as process liquors, shall not be mixed and shall not be reintroduced to a treatment process from which they did not originate. Such liquors shall only be mixed where agreed by the Agency and for the purpose of off-site treatment or disposal.
- 8.19 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 (including treatment). The licensee shall not dispose of any residues arising from treatment processes carried out at the facility unless recovery options are not reasonably available.

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

Condition 9. Accident Prevention and Emergency Response

- 9.1 The licensee shall maintain a documented Accident Prevention Procedure that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.2 The licensee shall maintain a documented Emergency Response Procedure that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.3 Emergencies
 - 9.3.1 In the event of a complete breakdown of equipment or any other occurrence which results in the closure of the waste processing building, any waste arriving, or already collected, at the facility shall be transferred directly to appropriate landfill facilities or any other appropriate facility until such time as the waste processing building is returned to a fully operational status. Such a breakdown event shall be treated as an emergency and rectified as soon as possible.
 - 9.3.2 All significant spillages occurring at the facility shall be treated as an emergency. All such spillages shall be immediately cleaned up and dealt with so as to minimise the effect on the environment.
 - 9.3.3 No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.
- 9.4 Incidents
 - 9.4.1 In the event of an incident the licensee shall immediately:
 - (i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
 - (ii) isolate the source of any such emission;
 - (iii) evaluate the environmental pollution, if any, caused by the incident;
 - (iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - (v) identify the date, time and place of the incident; and
 - (vi) notify the Agency and other relevant authorities.
 - 9.4.2 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.

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

Condition 10. Decommissioning & Residuals Management

- 10.1 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery any soil, subsoil, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.
- 10.2 Decommissioning Management Plan (DMP)
- 10.2.1 The licensee shall prepare, to the satisfaction of the Agency, a fully detailed and costed plan for the decommissioning or closure of the facility or part thereof. This plan shall be submitted to the Agency for agreement within six months of the date of grant of the licence.
- 10.2.2 The plan shall be reviewed annually and proposed amendments thereto notified to the Agency for agreement as part of the AER. No amendments may be implemented without agreement by the Agency.
- 10.2.3 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision when implementing Condition 10.2.1 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 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 DMP, for all or part of the facility 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 licence shall notify the Agency by both telephone and facsimile, if available, 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.

- 11.2 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.
- 11.3 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.
- 11.4 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.
- 11.5 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility.
- 11.6 The licensee shall as a minimum keep the following documents at the facility:
- (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; and
 - (xiii) Records of all compost quality testing, including monitoring undertaken in conjunction with third party compost quality assurance schemes.

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

- 11.7 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.
- 11.8 A record shall be kept of each consignment of trade effluent, leachate and/or contaminated storm water removed from the facility. The record shall include the following:-
- (i) the name of the carrier;
 - (ii) the date and time of removal of trade effluent, leachate and/or contaminated storm water from the facility;
 - (iii) the volume of trade effluent, leachate and/or contaminated storm water, in cubic metres, removed from the facility on each occasion;
 - (iv) the name and address of the Waste Water Treatment Plant to which the trade effluent, leachate and/or contaminated storm water was transported; and
 - (v) any incidents or spillages of trade effluent, leachate and/or contaminated storm water during its removal or transportation.
- 11.9 The licensee shall submit to the Agency, by the 31st March of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule F: Annual Environmental Report*, of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.
- 11.10 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.
- 11.11 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall 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 the waste and its appropriateness to accept the consigned waste stream, to include its permit/licence details and issuing authority, if required;
 - (iv) written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site;
 - (v) details of all waste consigned abroad for Recovery and classified as 'Green' in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended). The rationale for the classification must form part of the record;
 - (vi) details of any rejected consignments;
 - (vii) details of any approved waste mixing; and
 - (viii) a record of the quantity of compost and bio-stabilised residual waste produced per annum. A summary of this record shall be reported in the AER.
- 11.12 Where compost product contains sewage sludge the licensee shall retain the following records on site:
- (i) A copy of the notifications to the Local Authority as required under Article 8(1) and Article 8(3) of the Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998 to 2001.

- (ii) This shall include, inter alia, sludge analysis, records of sludge quantities, sludge properties, treatment type and location/name of the recipient of the sludge (sludge meaning compost containing treated sludge).
- 11.13 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.
- 11.14 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 €10,897 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 Act 1996, as amended. The first payment shall be a pro-rata amount for the period from the date of grant of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of grant of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Waste Management Act 1996, as amended and all such payments shall be made within one month of the date upon which demanded by the Agency.
- 12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased, the licensee shall contribute such sums as determined by the Agency to defray its costs in regard to items not covered by the said annual contribution.

12.2 Environmental Liabilities

- 12.2.1 The licensee shall as part of the AER, provide an annual statement as to the measures taken or adopted at the site in relation to the prevention of environmental damage, and the financial provisions in place in relation to the underwriting of costs for remedial actions following anticipated events (including closure) or accidents/incidents, as may be associated with the carrying on of the activity.
- 12.2.2 The licensee shall arrange for the completion, by an independent and appropriate qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) which addresses the liabilities from past and present activities. The assessment shall include those liabilities and costs identified in Condition 10 for execution of the DMP. A report on this assessment shall be submitted to the Agency for agreement within twelve months of date of grant of this licence. The ELRA shall be reviewed as necessary to reflect any significant change on site, and in any case every three years following initial agreement. Review results are to be notified as part of the AER.
- 12.2.3 As part of the measures identified in Condition 12.2.1, the licensee shall, within six months of the date of grant of this licence and to the satisfaction of the Agency, make financial provision to cover any liabilities associated with the activity (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.

- 12.2.4 The licensee shall revise the cost of closure, restoration and aftercare annually and any adjustments shall be reflected in the financial provision made under Condition 12.2.3.
- 12.2.5 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 and 12.2.3 above.

Reason: *To provide for adequate financing for monitoring and financial provisions for measures to protect the environment and to provide for the requirements of Section 52 of the Waste Management Act 1996, as amended.*

SCHEDULE A: Limitations**A.1 Waste Processes**

The following waste related processes are authorised:

- Storage and composting of biodegradable waste.
- Storage and biological treatment of organic fines.

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 Biological Treatment/Composting**

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 biodegradable waste for composting including industrial and sewage biosolids, separated household and catering waste and other non-hazardous biodegradable material and household waste | 40,000 |

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: (BF1) Biofilter 1
(BF2) Biofilter 2

| Parameter | Emission Limit Value |
|-------------------|----------------------|
| Ammonia | 50 ppm(v/v) |
| Hydrogen sulphide | 5 ppm (v/v) |
| Mercaptans | 5 ppm (v/v) |
| Amines | 5 ppm (v/v) |

**B.2 Emissions to Water**

There shall be no emissions to water of environmental significance.

B.3 Noise Emissions

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



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: (BF1) Biofilter 1
(BF2) Biofilter 2

Description of Treatment: Acid scrubbing
Biofiltration

| Control Parameter | Monitoring | Key Equipment ^{Note 1} |
|--|--|--|
| Air extraction | Continuous with alarm/call-out | SCADA control system Pumps/engines Pressure gauges |
| Acid scrubbing | Daily visual check of scrubber flow Daily visual check of pressure drop | Flow and level meters Pressure gauges |
| Biofilter - | | |
| Inlet and outlet gases: ^{Note 2} | | |
| Ammonia | Monthly | Colorimetric indicator tubes ^{Note 3} |
| Hydrogen sulphide | Monthly | Colorimetric indicator tubes ^{Note 3} |
| Mercaptans | Monthly | Colorimetric indicator tubes ^{Note 3} |
| Bed Media - ^{Note 4} | | |
| 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 - | | |
| Sprinkler system | Daily visual check | System is operational |
| 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: Samples of biofilter outlet gases shall be of undiluted emissions taken from a representative covered area directly above the biofilter bed media.

Note 3: Or an alternative method agreed by the Agency.

Note 4: The biofilter shall be examined to ensure that no channelling is evident. Turning, restructuring and the addition of supplementary bed materials or total replacement of bed materials shall be carried out as required subject to bed performance.

C.1.2 Monitoring of Emissions to Air

Emission Point Reference No: BF1 (Biofilter 1)
BF2 (Biofilter 2)

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

Note 1: Odour measurements shall be by olfactometric measurement.

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

C.2 Monitoring of Composting Process

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|--------------------------------------|----------------------|----------------------------|
| Composting process - | | |
| Temperature | Continuous | Temperature probe/recorder |
| Oxygen Content | Daily | Oxygen Probe with recorder |
| Moisture | Daily | Subjective by operator |
| Composting process (curing) - | | |
| Temperature | Continuous | Temperature probe |
| Moisture | Daily | Subjective by operator |

C.3 Monitoring of Storm Water Emissions

Emission Point Reference No: SW3 (combined storm water emission point) ^{Note 1}

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|----------------------|----------------------|---------------------------|
| pH | Quarterly | Standard method |
| Total ammonia (as N) | Quarterly | Standard method |
| Suspended solids | Quarterly | Standard method |
| BOD | Quarterly | Standard method |
| Mineral oils | Quarterly | Standard method |
| Chlorides | Quarterly | Standard method |

Note 1: The monitoring requirements in this schedule shall apply to the separate discharges of roof runoff and yard run off until the two discharges are combined. Thereafter, the combined discharge is designated as SW3 and the monitoring requirements of this schedule shall apply to SW3.

C.4 Ambient Monitoring

Location Reference No: SW1 (downstream of storm water discharge)
 SW2 (upstream of storm water discharge)

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|----------------------|----------------------|---------------------------|
| pH | Quarterly | Standard method |
| Total ammonia (as N) | Quarterly | Standard method |
| Suspended solids | Quarterly | Standard method |
| BOD | Quarterly | Standard method |
| Mineral oils | Quarterly | Standard method |
| Chlorides | Quarterly | Standard method |



Location: Dust - monitoring stations D1, D2 and D3
 Micro-organisms - at agreed upwind and downwind locations or at any other locations as may be required by the Agency

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|-----------------------|-----------------------------|-------------------------------|
| Dust deposition | Quarterly ^{Note 1} | VDI 2119 (Bergerhoff method) |
| Bacteria | 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: BH1, BH2, BH3

| Parameter | Monitoring Frequency | Analysis Method/Techniques |
|---------------------------------------|----------------------|----------------------------|
| Groundwater levels (wells) | Biannually | Level meter |
| 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

Schedule D: Specified Engineering Works

| Specified Engineering Works |
|---|
| Extension to waste processing building. Extension of storm water drainage network. Any other works notified in writing by the Agency. |



J

Schedule E: Standards for Compost Quality

Compost Quality

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

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

The criteria apply to the compost just after the final composting/curing phase and prior to mixing with any other materials.

1. Stability

Table E.1 - Maximum Respiration Activity

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



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

Table E.2 – Maximum Metal Concentration Limits

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

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

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

Note 3: Monitoring of Arsenic (As) is required if waste timber is used in the composting process.



3. Pathogens

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

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

Table E.3 – Pathogenic Organism Content Limits

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

Where n = Number of samples to be tested.



4. Impurities

Table E.4 – Impurity Content Limits

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

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



5. Organic Matter

Table E.5 – Organic Matter Content Limit

| Parameter | Compost Limit |
|----------------|---------------|
| Organic Matter | ≥ 20% |



6. Miscellaneous

Table E.6 – Maturity Test

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



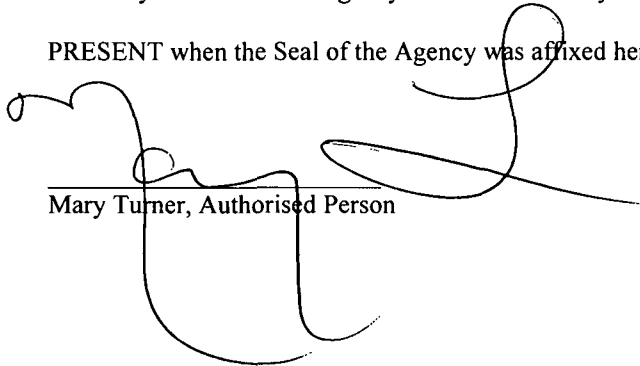
SCHEDULE F: Annual Environmental Report

| Annual Environmental Report Content ^{Note 1} |
|--|
| <p>Reporting Period.</p> <p>Waste activities carried out at the facility.</p> <p>Quantity and composition of waste recovered, received and disposed of during the reporting period and each previous year (relevant EWC codes to be used).</p> <p>Emissions from the facility.</p> <p>Waste management record.</p> <p>Waste recovery report.</p> <p>Amount of compost and bio-stabilised residual waste produced per annum.</p> <p>Review of Nuisance Controls.</p> <p>Resource consumption summary.</p> <p>Complaints summary.</p> <p>Schedule of Environmental Objectives and Targets.</p> <p>Environmental management programme – report for previous year.</p> <p>Environmental management programme – proposal for current year.</p> <p>Pollutant Release and Transfer Register – report for previous year.</p> <p>Pollutant Release and transfer Register – proposal for current year.</p> <p>Noise monitoring report summary.</p> <p>Ambient monitoring summary.</p> <p>Tank and pipeline testing and inspection report.</p> <p>Reported incidents summary.</p> <p>Energy efficiency audit report summary.</p> <p>Report on the assessment of the efficiency of use of raw materials in processes and the reduction in waste generated.</p> <p>Report on progress made and proposals being developed to minimise water demand and the volume of trade effluent discharges.</p> <p>Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.</p> <p>Review of Decommissioning Management Plan.</p> <p>Statement of measures in relation to prevention of environmental damage and remedial actions (Environmental Liabilities).</p> <p>Environmental Liabilities Risk Assessment Review (every three years or more frequently as dictated by relevant on-site change) including financial provisions.</p> <p>Achievement of compost quality standards.</p> <p>Destination and uses of compost produced.</p> <p>Any other items specified by the Agency.</p> |

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

Sealed by the Seal of the Agency on this the 26th day of February 2014

PRESENT when the Seal of the Agency was affixed hereto:-



 Mary Turner, Authorised Person

