

SCANNED

21 JUN 2007



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

**WASTE LICENCE
Recommended Decision**

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| Licence Register Number: | W0223-01 |
| Applicant: | Fingal County Council |
| Location of Facility: | Newtown, Kilshane Cross, Dublin 15 |

INTRODUCTION

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

This waste management facility at Newtown, Kilshane Cross, Dublin 15 consists of the following:

- A ‘Construction and Demolition Waste Recovery Unit’ (C&D) processing 75,000 tonnes per annum (tpa);*
- A ‘Waste Transfer Station’ dealing with 65,000 tonnes per annum of municipal solid waste;*
- A ‘Biological Waste Treatment Unit’ treating 45,000 tpa of source separated and separately collected domestic and commercial organic waste, and;*
- A ‘Sludge Hub Centre’ treating i.e. drying 26,511 tpa of sludge from wastewater treatment facilities in Fingal County Council’s functional area.*

It is proposed that the facility will operate between 7 a.m. and 10 p.m. Monday to Saturday and will normally be closed on Sundays and Bank Holidays.

The licence sets out in detail the conditions under which Fingal County Council will operate and manage this facility.

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Glossary of Terms

All terms in this licence should be interpreted in accordance with the definitions in the Environmental Protection Agency Acts 1992 and 2003 / Waste Management Acts 1996 to 2005, unless otherwise defined in this section.

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| Aerosol | A suspension of solid or liquid particles in a gaseous medium. |
| Adequate lighting | 20 lux measured at ground level. |
| AER | Annual Environmental Report. |
| Agreement | Agreement in writing. |
| Anaerobic Digestion | The biological decomposition of biowaste in the absence of oxygen and under controlled conditions by the action of micro-organisms (including methanogenic bacteria) in order to produce biogas and digestate. |
| Annually | At approximately twelve monthly intervals. |
| Attachment | Any reference to Attachments in this licence refers to attachments submitted as part of this licence application. |
| Application | The application by the licensee for this licence. |
| Appropriate facility | A waste management facility, duly authorised under relevant law and technically suitable. |
| BAT | Best Available Techniques. |
| Bi-annually | All or part of a period of six consecutive months. |
| 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. |
| Biogas | The mixture of carbon dioxide, methane, and trace gases resulting from the controlled anaerobic digestion of biowaste. |
| Biological Treatment | Biological Treatment involves composting, anaerobic digestion, mechanical-biological treatment or any other process for stabilising biodegradable waste. |
| BOD | 5 day Biochemical Oxygen Demand. |
| 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 biowaste which complies with the environmental quality classes outlined in Schedule E of this licence. |
| Composting | The autothermic and thermophilic biological decomposition of separately collected biowaste in the presence of oxygen and under controlled conditions by the action of micro-organisms and macro-organisms in order to produce compost. |

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| Commercial Waste | As defined in Section 5(1) of the Waste Management Acts 1996 to 2005. |
| Construction and Demolition Waste | Wastes that arise from construction, renovation and demolition activities: Chapter 17 of the EWC or as otherwise may be agreed. |
| Curing | Also known as maturing - the latter stage of the composting process which involves the stabilisation of the composted material under conditions of reduced microbial activity. The curing stage occurs after the most intensive thermophilic/mesophilic composting stage and does not typically require active management for composting purposes (e.g. by aeration, turning, moisture control etc.). It is typically characterised by the storage of composted material over a prolonged period (e.g. prior to its use) where the autothermic temperature of the material gradually decreases over time and until maturity standards have been achieved. |
| Containment boom | A boom which can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses. |
| 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 | 0800 hrs to 2200 hrs. |
| dB(A) | Decibels (A weighted). |
| DO | Dissolved Oxygen. |
| Documentation | Any report, record, result, 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. |
| EMP | Environmental Management Programme. |
| Emission Limits | Those limits, including concentration limits and deposition rates established in <i>Schedule B</i> of this licence. |
| Environmental Damage | Has the meaning given it in Directive 2004/35/EC. |
| EPA | Environmental Protection Agency. |
| European Waste Catalogue (EWC) | A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC and any subsequent amendment published in the Official Journal of the European Community. |
| Facility | Any site or premises used for the purposes of the recovery or disposal of 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. |

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| Green waste | Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation. |
| 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. |
| Hours of Operation | The hours during which the facility is authorised to be operational. |
| Hours of Waste Acceptance | The hours during which the facility is authorised to accept waste. |
| ICP | Inductively Coupled Plasma Spectroscopy. |
| Incident | The following shall constitute an incident for the purposes of this licence: <ul style="list-style-type: none">(i) an emergency;(ii) any emission which does not comply with the requirements of this licence;(iii) any exceedence of the daily duty capacity of the waste handling equipment;(iv) any trigger level or warning or action level specified in this licence which is attained or exceeded; and,(v) any indication that environmental pollution has, or may have; taken place. |
| 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. |
| Industrial Waste | As defined in Section 5(1) of the Waste Management Acts 1996 to 2005. |
| 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 must 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 | Kilo Pascals. |
| Landfill Directive | Council Directive 1999/31/EC. |

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| Leq | Equivalent continuous sound level. |
| Licence | A Waste Licence issued in accordance with the Waste Management Acts 1996 to 2005. |
| Licensee | Fingal County Council, P.O. Box 174 County Hall, Swords, Fingal, Co. Dublin |
| Liquid Waste | Any waste in liquid form and containing less than 2% dry matter. |
| List I | As listed in the EC Directives 76/464/EEC and 80/68/EEC and amendments. |
| List II | As listed in the EC Directives 76/464/EEC and 80/68/EEC and amendments. |
| Local Authority | Fingal County Council. |
| Maintain | Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to adequately perform its function. |
| Mass Flow Limit | An Emission Limit Value which is expressed as the maximum mass of a substance which can be emitted per unit time. |
| Mass Flow Threshold | A mass flow rate, above which, a concentration limit applies. |
| Mechanical/Biological Treatment | The treatment of residual municipal waste, unsorted waste or any other biowaste 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 approximately monthly intervals. |
| Municipal waste | As defined in Section 5(1) of the Waste Management Acts 1996 to 2005. |
| Night-time | 2200 hrs to 0800 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. |
| Oil Separator | Device installed according to the International Standard I.S.EN 858-2:2003 (Separator systems for light liquids, (e.g. oil and petrol)-Part 2: Selection of nominal size, installation, operation and maintenance. |
| PRTR | Pollutant Release and Transfer Register |
| Quarterly | All or part of a period of three consecutive months beginning on the first day of January, April, July or October. |
| Regional Fisheries Board | Eastern Regional Fisheries Board. |
| Water Services Authority | Fingal County Council. |
| Sanitary Effluent | Waste water from facility toilet, washroom and canteen facilities |
| Sample(s) | Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments. |
| Separate | The collection of biowaste separately from other kinds of waste in such a |

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| Collection | 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. |
| Specified Emissions | Those emissions listed in <i>Schedule B: Emission Limits</i> of this licence. |
| Specified Engineering Works | Engineering works listed in <i>Schedule D: Specified Engineering Works</i> of this licence. |
| Stabilised Biowaste | Waste resulting from the mechanical/biological treatment of unsorted waste or residual municipal waste including treated biowaste which does not comply with the environmental quality classes outlined in Schedule E of this licence. |
| Standard Method | A National, European or internationally recognised procedure (eg, 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 and from the Construction and Demolition Waste Recovery Area. |
| The Agency | Environmental Protection Agency. |
| TA Luft | Technical Instructions on Air Quality Control - TA Luft in accordance with art. 48 of the Federal Immission Control Law (BImSchG) dated 15 March 1974 (BGBl. I p.721). Federal Ministry for Environment, Bonn 1986, including the amendment for Classification of Organic Substances according to section 3.1.7 TA.Luft, published in July 1997. |
| Temporary storage | In relation to waste is a period of less than six months as defined in the Waste Management Acts 1996 to 2005. |
| TOC | Total Organic Carbon. |
| Trade Effluent | Trade Effluent has the meaning given in the Water Pollution Acts 1977 and 1990. |
| Trigger Level | A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee. |
| WEEE | As defined in S.I. No. 340 of 2005. |
| Weekly | During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with at least one measurement in any one week. |
| WWTP | Waste Water Treatment Plant. |

Decision & Reasons for the Decision

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any emissions from the activity will comply with and will not contravene any of the requirements of Section 83(5) of the Section 40(4) of the Waste Management Acts 1996 to 2005.

In reaching this decision the Environmental Protection Agency has considered the application and supporting documentation received from the applicant, the submission received from a third party and the report of its inspector.

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Acts 1996 to 2005, the Environmental Protection Agency (the Agency) proposes, under Section 40(1) of the said Act to grant this Waste Licence to **Fingal County Council, P.O. Box 174, County Hall, Swords, Co. Dublin** to carry on the waste activity/activities listed below at **Newtown, Kilshane Cross, Dublin 15** subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2005

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| Class 11. | Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule. |
| Class 13. | Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced. |

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2005

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| Class 2. | Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes). |
| Class 3. | Recycling or reclamation of metals and metal compounds. |
| Class 4. | Recycling or reclamation of other inorganic materials. |
| Class 9. | Use of any waste principally as a fuel or other means to generate energy. |
| Class 11. | Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule. |
| Class 13. | Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such 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 Activities Licensed, and shall be as set out in the licence application or as modified under Condition 1.5 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: Limitations*, of this licence.
- 1.3 The facility shall be controlled, operated, and maintained and emissions shall take place as set out in this licence. All programmes required to be carried out under the terms of this licence, become part of this licence.
- 1.4 For the purposes of this licence, the facility is the area of land outlined in red on Drawing No. 1234/01/301 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 **Prior to acceptance of waste containing animal by-products the licensee shall satisfy the Agency that it has obtained written approval from the Department of Agriculture and Food to process and treat animal by-products in composting/biogas facilities.**
- 1.6 Waste Acceptance Hours and Hours of Operation
 - 1.6.1 **With the exception of emergencies or as may be agreed by the Agency, waste shall be accepted at or dispatched from the facility only between the hours of 7.30 a.m. and 9.30 p.m. Monday to Saturday inclusive.**
 - 1.6.2 The facility, **other than the Biological Waste treatment Unit**, shall be operated only during the hours of 7 a.m. and 10 p.m. Monday to Saturday inclusive.
 - 1.6.3 The facility shall not be operated, **other than the Biological Waste treatment Unit**, on Sundays or on Public Holidays without the agreement of the Agency.
- 1.7 No alteration to, or reconstruction in respect of, the activity or any part thereof which 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 This licence is for the purposes of waste licensing under the Waste Management Acts 1996 to 2005 only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.
- 1.9 **Having regard to the nature of the activity and arrangements necessary to be made or made in connection with the carrying on of the activity, the specified**

period for the purposes of Section 41(1) of the Waste Management Acts 1996 to 2005, is 5 years.

Reason: To clarify the scope of this licence.

Condition 2. Management of the Facility

2.1 Facility Management

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

2.1.2 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience, as required and shall be aware of the requirements of this licence. In addition, the facility manager and his/her deputy shall successfully complete FAS waste management training programme or equivalent agreed by the Agency.

2.2 Environmental Management System (EMS)

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

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

2.2.2.1 Management and Reporting Structure.

2.2.2.2 Schedule of Environmental Objectives and Targets.

The licensee shall **prepare and 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, **not later than six months from the date of commencement of licensed activities, submit to the Agency for agreement** an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.2. Once agreed the EMP shall be **established and maintained** by the licensee. It shall include:

- (i) designation of responsibility for targets;
- (ii) the means by which they may be achieved;
- (iii) 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) (**Condition 11.10**).

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

2.2.2.4 Documentation

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

2.2.2.6 Awareness and Training

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

2.2.2.8 Maintenance Programme

The licensee shall **establish and maintain** a programme for maintenance of all plant and equipment based on the instructions issued by the manufacturer/supplier or installer of the equipment. Appropriate record keeping and diagnostic testing shall support this maintenance programme. The licensee shall clearly allocate responsibility for the planning, management and execution of all aspects of this programme to appropriate personnel (see Condition 2.1 above).

2.2.2.9 Efficient Process Control

The licensee shall **establish and 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 all infrastructure referred to in this licence in advance, of the commencement of the licensed activities or as required by the conditions of this licence.
- 3.2 Facility Notice Board
- 3.2.1 The licensee shall within four months of the date of grant of this notice provide and 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.
- 3.2.2 The board shall clearly show:-
- (i) the name and telephone number of the facility;
 - (ii) the normal hours of operation and 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.
- 3.2.3 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 it is legible at all times. The plan shall be replaced as material changes to the facility are made.
- 3.3 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.
- 3.4 In the case of composite sampling of aqueous emissions from the operation of the facility a separate composite sample or homogeneous sub-sample (of sufficient volume as advised) should be refrigerated immediately after collection and retained as required for EPA use.
- 3.5 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.
- 3.6 Tank, Container and Drum Storage Areas
- 3.6.1 All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds should be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004).
- 3.6.2 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 which could be stored within the bunded area.

- 3.6.3 All drainage from bunded areas shall be treated as hazardous waste unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal.
- 3.6.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.6.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.
- 3.7 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.
- 3.8 The licensee shall, where anaerobic digestion is used for biological waste treatment, establish and maintain a gas compression engine for the utilisation of the biogas produced, and a flare for back-up purposes when the gas compression engine is out of operation.**
- 3.9 Silt Traps and Oil Separators
- The licensee shall install and maintain silt traps and oil separator at the facility to ensure that all storm water discharges from the facility pass through a silt trap and oil separator in advance of discharge. The separator shall be a Class I full retention separator and the silt traps and separator shall be in accordance with I.S. EN 858-2:2003 (separator systems for light liquids)
- 3.10 Firewater Retention
- 3.10.1 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 from the date of grant of this licence.
- 3.10.2 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 from date of notification by the Agency.
- 3.10.3 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 9.2** the provision of automatic diversion of storm water to the containment pond. The licensee shall have regard to any guidelines issued by the Agency with regard to firewater retention.
- 3.10.4 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 3.10.1 and 3.10.2** above.
- 3.11 All pump sumps, storage tanks, lagoons or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach local or remote containment or separator, shall be fitted with high liquid level alarms (or oil detectors as appropriate).

- 3.12 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 objectives and targets set out in Condition 2.2 of this licence for the reduction in fugitive emissions.
- 3.13 **All groundwater monitoring wells, the monitoring of which is required by this licence**, shall be adequately protected to prevent contamination or physical damage and shall be constructed having regard to the guidance given in the Agency's landfill manual "Landfill Monitoring".
- 3.14 The licensee shall, within three months of the date of grant of this licence, install in a prominent location on the site a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.
- 3.15 The licensee shall operate a weather monitoring station on the site at a location agreed by the Agency, which records conditions of wind speed and wind direction.
- 3.16 Specified Engineering Works
- 3.16.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule D: Specified Engineering Works*, of this licence, to the Agency for its agreement at least two months in advance of the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.
- 3.16.2 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.
- 3.16.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall, as **appropriate**, include the following information:
- (i) A description of the works;
 - (ii) As-built drawings of the works;
 - (iii) Any other information requested in writing by the Agency.
- 3.17 Facility Security
- 3.17.1 Security and stockproof fencing and gates shall be installed and maintained. The base of the fencing shall be set in the ground. Subject to the implementation of the restoration and aftercare plan and to the agreement of the Agency, the requirement for such site security may be removed.
- 3.17.2 The licensee shall install a CCTV system which records all truck movement into and out of the facility; the CCTV system shall be operated at all times and copies of recording kept on site and made available to the Agency on request.
- 3.17.3 Gates shall be locked shut when the facility is unsupervised.
- 3.17.4 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.
- 3.18 Facility Roads and Site Surfaces
- 3.18.1 Effective site roads shall be provided and maintained to ensure the safe and nuisance-free movement of vehicles within the facility.
- 3.18.2 The licensee shall provide and maintain an impermeable concrete surface in **all areas of the facility used for the handling and/or storage of waste or for the movement or parking of vehicles**; the surfaces shall be concreted and constructed to British Standard 8110 or an alternative as agreed by the Agency. The licensee shall remedy any defect in concrete surfaces within five working days.

- 3.19 Facility Office
- 3.19.1 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.
- 3.19.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.
- 3.20 Waste Inspection and Quarantine Areas
- 3.20.1 Waste Inspection Areas and a Waste Quarantine Areas shall be provided and maintained in the **Waste Transfer Station Building, the Biological Waste Treatment Unit and the Construction and Demolition Waste Management Area.**
- 3.20.2 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.
- 3.21 Weighbridge and Wheel Cleaners
- 3.21.1 The licensee shall provide and maintain a weighbridge at the facility.
- 3.21.2 The licensee shall provide and maintain a **wheel cleaner at the facility.**
- 3.21.3 The wheel cleaner shall be used by all vehicles leaving the **Construction and Demolition Waste Recovery Unit and any other vehicle as may be specified by the Agency** as required to ensure that no waste is carried off-site. All water from the wheel cleaning area shall be directed to the trade effluent drainage network.
- 3.21.4 The wheel-wash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel-wash and disposed of appropriately.
- 3.22 Waste handling, ventilation and processing plant
- 3.22.1 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 backup and spares in the case of breakdown of critical equipment.
- 3.22.2 In advance of the commencement of waste activities, the licensee shall provide a report for the agreement of the Agency detailing the duty and standby capacity in tonnes per day, of all waste handling and processing equipment to be used at the facility. These capacities shall be based on the licensed waste intake, as per *Schedule A: Limitations*, of this licence.
- 3.22.3 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 exceedence of this intake shall be treated as an incident.
- 3.22.4 If sludges are being accepted the licensee must ensure that an enclosed tank be provided for storage of sludge/slurry to ensure safe coupling system for loading/unloading from road tankers.
- 3.23 Wastewater Treatment System
- 3.23.1 The licensee shall provide and maintain (or have maintained) a Wastewater Treatment system at the facility for the treatment of trade effluent arising on-site. The specification of the treatment plant shall be as to ensure compliance with the conditions of this licence.
- 3.23.2 **All runoff from areas used for the handling and storage of waste shall discharge to the wastewater treatment system.**

3.24 Construction and Demolition Waste Recovery Area

3.24.1 In advance of the **acceptance of Construction and Demolition Waste at the facility**, the licensee shall provide and maintain a construction and demolition waste recovery area. This infrastructure shall at a minimum comprise the following:

- (i) an impermeable concrete slab;
- (ii) collection and disposal infrastructure for all run-off;
- (iii) appropriate bunding to provide visual and noise screening;
- (iv) All stockpiles shall be adequately contained to minimise dust generation;
- (v) In advance of the commencement of waste activities, the licensee shall implement measures to minimise dust generation at this facility and shall as instructed by the Agency install a sprinkling irrigation system for the control of dust nuisance from the facility. Any remedial works necessary to control dust must be implemented within a time-scale to be agreed by the Agency.

3.24.2 Only Construction and Demolition waste shall be accepted at this Area. Wastes that are capable of being recovered shall be separated and shall be stored temporarily in this area in advance of being subjected to other recovery activities at the facility or transport off the facility.

3.25 Biological Waste Treatment Unit

Appropriate infrastructure for the composting of waste shall be established and maintained at the facility in the **Biological Waste Treatment Building** shown on Drawing No. **1234/01/303** in advance of any waste being composted. This infrastructure shall at a minimum comprise the following:

- (i) **Waste acceptance/ inspection and storage areas;**
- (ii) **Curing and storage areas;**
- (iii) **A waste quarantine area;**
- (iv) Installation and maintenance of integrity and negative pressure throughout the building to ensure no significant escape of odours or dust.
- (v) Installation of an odour management system which satisfies the following requirements:-
 - (a) Provision of 100% duty capacity and 20% stand by capacity, back ups and spares must be provided for the air handling, ventilation and abatement plant.
 - (b) Emissions from the biofilter shall not exceed those ELVs as set out in *Schedule B: Emission Limits*, of this licence.
- (vi) To provide for 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.
- (vii) Prior to commencement of composting activities a continuous monitoring system shall be installed and maintained at the facility. All facility operations linked to the telemetry system shall also have a manual control which will be reverted to in the event of break in power supply or during maintenance. As a minimum the system shall record and relay temperature and oxygen content of the compost at all stages during its production.

- (viii) All trade effluent, leachate and/or storm water from composting operations, **unless reused in the process** shall be collected and treated.

3.26 Leachate Management Infrastructure

- 3.26.1 Leachate management infrastructure shall be provided and maintained at the facility as described in the Application documentation, or as may be varied by a licence condition.
- 3.26.2 All structures for the storage and/or treatment of leachate shall be fully enclosed except for inlet and outlet piping.

3.27 Dust/Odour Control

In advance of the date of commencement of the waste activities at the facility, the licensee shall install a **system** and provide adequate measures for the control of odours and dust emissions, including fugitive dust emissions, from the facility. The system shall at a minimum include the following:

- 3.27.1 Dust curtains (or equivalent approved by the Agency) shall be maintained on the entry/exit points from the waste transfer building; all other doors in this building shall be kept closed where possible.
- 3.27.2 Unless otherwise agreed by the Agency, **all buildings processing putrescible or odorous waste** shall be maintained at negative air pressure with ventilated gases being subject to treatment as agreed by the Agency.
- 3.27.3 Provision of 100% duty capacity and 20% standby capacity, backups and spares must be provided for the air handling, ventilation and abatement plant.

3.28 Surface Water Management

The licensee shall provide dedicated on-site storage tank(s) to provide for the collection of clean roof water runoff from any site building(s). This water shall be re-used in the process where possible.

3.30 Fuel Use

Natural gas, **biogas** or biodiesel meeting CEN standard EN14214 shall be used in the boilers or Combined Heat & Power plant and sludge drying process on site. In the event of an interruption to the supply of natural gas, **biogas** or biodiesel, an alternative fuel such as gas oil (sulphur content not exceeding 0.2% by mass until December 31st 2007 and not exceeding 0.1% by mass thereafter) may be used with the prior written agreement of the Agency.

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| <i>Reason: To provide for appropriate operation of the facility to ensure protection of the environment.</i> |
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Condition 4. Interpretation

- 4.1 Emission limit values for emissions to atmosphere in this licence shall be interpreted in the following way:

- 4.1.1 Continuous Monitoring:
- (i) No 24 hour mean value shall exceed the emission limit value.
 - (ii) 97% of all 30 minute mean values taken continuously over an annual period shall not exceed 1.2 times the emission limit value.
 - (iii) No 30 minute mean value shall exceed twice the emission limit value.
- 4.1.2 For Non-Continuous Monitoring
- (i) For any parameter where, due to sampling/analytical limitations, a 30 minute sample is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.
 - (ii) For flow, no hourly or daily mean value, calculated on the basis of appropriate spot readings, shall exceed the relevant limit value.
 - (iii) For all other parameters, no 30 minute mean value shall exceed the emission limit value.
- 4.2 The concentration and volume flow limits for emissions to atmosphere specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of:
- 4.2.1 In the case of non-combustion gases:
Temperature 273K, Pressure 101.3 kPa (no correction for oxygen or water content).
- 4.2.2 In the case of combustion gases (**gas compression engine and flare**):
Temperature 273K, Pressure 101.3 kPa, dry gas; **5% oxygen** for liquid and gas fuels; 6% oxygen for solid fuels.
- 4.2.3 In the case of combustion gases (**other than gas compression engine and flare**):
Temperature 273K, Pressure 101.3 kPa, dry gas; 3% oxygen for liquid and gas fuels; 6% oxygen for solid fuels.
- 4.3 Emission limit values for emissions to sewer/waters in this licence shall be interpreted in the following way:-
- 4.3.1 Continuous monitoring:
- (i) No flow value shall exceed the specified limit.
 - (ii) No pH value shall deviate from the specified range.
 - (iii) No temperature value shall exceed the limit value.
- 4.3.2 Composite Sampling:
- (i) No pH value shall deviate from the specified range.
 - (ii) For parameters other than pH and flow, eight out of ten consecutive composite results, based on flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value.
- 4.3.3 Discrete Sampling
For parameters other than pH and temperature, no grab sample value shall exceed 1.2 times the emission limit value.
- 4.4 **Compost/Digestate Quality**
- 4.4.1 **No sample shall exceed 1.2 times the quality limit values set.**

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

4.6 Noise

Noise from the facility shall not give rise to sound pressure levels (Leq,T) measured at **the boundary** of the facility which exceed the limit value(s).

4.7 Dust and Particulate Matter

Dust and particulate matter from the activity shall not give rise to deposition levels which exceed the limit value(s).

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

Condition 5. Emissions

- 5.1 No specified emission from the facility shall exceed the emission limit values set out in *Schedule B: Emission Limits* of this licence. There shall be no other emissions of environmental significance.
- 5.2 No emissions, including odours, from the activities carried on at the site shall result in an impairment of, or an interference with amenities or the environment beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary.
- 5.3 Emissions to Surface Water
- 5.3.1 No trade effluent, leachate and/or contaminated storm water shall be discharged to surface water drains and surface water courses.
- 5.4 No substance shall be discharged in a manner, or at a concentration that, following initial dilution, causes tainting of fish or shellfish.
- 5.5 Odour
- The trigger level for odour, as required by Schedule C.10 of this licence, shall be 1.5 OUm^{-3} .
- 5.6 Storm Water Discharges
- 5.6.1 The licensee shall determine the normal levels of the parameters listed in Schedule C.5 of this licence for uncontaminated surface water measured at monitoring point(s) SW2 and SW3 (of Figure 3.4.1 of the EIS).
- 5.6.2 The licensee shall, within three months from the date of grant of this licence submit proposals to the Agency for the setting of warning and action levels for storm water discharges to surface water, and establish a response programme when such approved action levels are reached.
- 5.7 There shall be no direct emissions to groundwater.
- 5.8 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 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.
- 5.9 The licensee shall at no time discharge or permit to be discharged into the sewer any liquid matter or thing that is or may be liable to set or congeal at average sewer temperature or is capable of giving off any inflammable or explosive gas or any acid, alkali or other substance in sufficient concentration to cause corrosion to sewer pipes, penstock and sewer fittings or the general integrity of the sewer.

Reason: To provide for the protection of the environment by way of control and limitation of emissions and to provide for the requirements of the Sanitary Authority in accordance with Section 52 of the Waste Management Acts 1996 to 2005.

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(s)** for abatement equipment installed to **control emissions including odour from the various operations at the facility including Waste Transfer, Biological Waste Treatment and Sludge Treatment operations.** This programme shall be submitted to the Agency in advance of implementation and shall include **proposed scale of and timeframes for carrying out of the test programme(s) including grounds, reasons and arguments for the proposal.**
- 6.1.2** The test programme(s), following agreement with the Agency, shall be carried out in conjunction with initial pilot scale waste acceptance for the operation in question. The scale of waste acceptance shall also be agreed with the Agency.
- 6.1.3** The test programme(s) which shall be limited in time and shall be representative of normal full-scale operation shall as a minimum:
- (i) Establish all criteria for operation, control and management of the abatement equipment to ensure compliance with this licence.
 - (ii) Assess the performance of any monitors on the abatement system and establish a maintenance and calibration programme for each monitor.
 - (iii) **Be limited in time and representative of full-scale operation.**
- 6.1.4** The criteria for the operation of the abatement equipment as determined by the test programme, shall be incorporated into the standard operating procedures.
- 6.1.5** A report on the test programme shall be submitted to the Agency within one month of completion.
- 6.1.6** Following the initial pilot scale waste acceptance for the purpose of carrying out a test programme(s) there shall be no commencement of waste acceptance at the Waste Transfer Station, Biological Waste Treatment Unit or Sludge Hub Centre without the agreement of the Agency. In order to gain the agreement of the Agency:
- (i) the licensee shall demonstrate compliance with licence conditions.
 - (ii) **Control parameters, monitoring frequency and key equipment for monitoring and control of emissions to air and to sewer must also be agreed.**

6.2 Sampling and Analysis

- 6.2.1** The licensee shall ensure that:
- (i) sampling and analysis for all parameters listed in the Schedules to this licence, and
 - (ii) any reference measurement methods to calibrate automated measurement systems shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards which will ensure the provision of data of an equivalent scientific quality shall apply.
- 6.2.2** Analysis shall be undertaken by competent staff in accordance with documented operating procedures;

- 6.2.3 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics determined;
- 6.2.4 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses;
- 6.2.5 Where analysis is sub-contracted it shall be to a competent laboratory.
- 6.2.6 Sampling and analysis of all pollutants as well as reference measurement methods to calibrate automated measurement systems shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards which will ensure the provision of data of an equivalent scientific quality shall apply.
- 6.2 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. Agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.
- 6.3 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission or discharge.
- 6.4 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.
- 6.5 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer.
- 6.6 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.
- 6.7 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.
- 6.8 The integrity and water tightness of all underground pipes, tanks, bunding structures and containers and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee prior to use. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 6.9 The drainage system, bunds, silt traps and oil separators shall be inspected weekly, desludged as necessary and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal. 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.
- 6.10 Bioaerosol Emissions**
- 6.10.1 The licensee shall undertake bioaerosol monitoring prior to the commencement of licensed activities, to determine ambient conditions.**
- 6.10.2 There shall be no emission of bioaerosol to air within 200 metres of an occupied dwelling.**
- 6.11 Storm Water

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

6.11.2 The licensee shall implement mitigation measures as described in Section 4.4.2 of the EIS with regard to surface water protection.

6.12 Noise

6.12.1 The licensee shall carry out a noise survey of the site operations annually. The survey programme shall be undertaken in accordance with the methodology specified in the 'Environmental Noise Survey Guidance Document' as published by the Agency.

6.12.2 The licensee shall, as a minimum, implement the noise mitigation measures described in Section 4.7.3 of the EIS which accompanied the licence application.

6.13 Biogas Use

The following requirements shall apply when biogas is used as a fuel:

6.13.1 Biogas that cannot be used on-site or upgraded to natural gas quality shall be flared.

6.13.2 When flaring biogas, the outlet temperature of the flue gas shall be at least 900°C and the residence time 0.3 seconds. The maximum concentration of sulphur compounds in biogas shall be 50ppm or a removal efficiency of at least 98% shall be proven.

6.14 Pollutant Release and Transfer Register (PRTR)

The licensee shall prepare and report a PRTR for the site. The substances and/or waste to be included in the PRTR shall be agreed by the Agency each year by reference to EC Regulation No.166/2006 concerning the establishment of the European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC. 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.

6.15 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 environmental monitoring data generated as a result of this licence.

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

6.17 Litter Control

6.17.1 All loose litter or other waste, placed 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 10.00 am of the next working day after such waste is discovered.

6.17.2 All vehicles, trailers and containers used for the transport of sludge or biodegradable waste to the site shall be totally enclosed. The design shall be such as to prevent loss or spillage.

6.18 Hedgerows

6.18.1 The licensee shall maintain existing boundary hedgerows where possible and in any event along the western and southern boundaries.

6.18.2 The mitigation measures as described in Section 4.2.2 of the EIS shall be implemented at the facility.

6.19 Dust/Odour Control

6.19.1 All waste for disposal stored overnight at the **waste transfer station** shall be stored in suitably covered and enclosed containers, and shall be removed from the facility within 48 hours, except at Public Holiday weekends. At Public Holiday weekends, waste for disposal shall be removed within 72 hours of its arrival on site.

6.19.2 All process air from the Waste Transfer Station, Sludge Hub Centre and Biological Waste Treatment building shall be directed to a dedicated odour control unit(s).

6.19.3 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.

6.20 Operational Controls

6.20.1 The floor of the waste transfer building shall be cleaned on a weekly basis and on a daily basis where putrescible waste is handled.

6.20.2 All tanks and drums shall be labelled to clearly indicate their contents.

6.20.3 There shall be no unauthorised public access to the facility.

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

6.20.5 All waste handling/processing plant shall be cleared of all waste and washed down on a weekly basis.

6.20.6 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 shall be either discharged to the wastewater drainage system or tankered off-site for treatment at a location to be agreed in advance by the Agency.

6.20.7 Any biowaste accepted at the facility for composting (other than bulking agents, e.g. woodchip, cardboard) shall be processed and put into the aerated composting area within twelve hours of its arrival at the facility.

6.20.8 The licensee shall ensure that the doors to the biowaste treatment building remain closed at all times other than to facilitate the delivery/removal of wastes from the building.

6.20.9 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

6.21 Compost/Digestate Quality

6.21.1 Compost quality monitoring shall be undertaken as set out in Schedule E: Standards for Compost/Digestate Quality.

6.21.2 Any compost/digestate not meeting any standard as per Schedule E may be reused in the process or handled as a waste and details recorded as per Waste Records condition.

6.21.3 The licensee shall have regard to any updated compost quality standards or guidance that may be issued by the Agency from time to time.

6.22 Monitoring Locations

Within three months of the date of grant of this licence, the licensee shall submit to the Agency an appropriately scaled drawing(s) showing all the monitoring locations that are stipulated in this licence including any noise-sensitive locations **and all**

emission points. The drawing shall include the eight-digit national grid reference of each monitoring point.

6.23 On Site and Off Site Monitoring

Having regard to the requirements of Condition 5.8 the licensee shall, at a minimum of daily intervals, inspect the facility and its immediate surrounds for litter, vermin, birds, flies, mud, dust and odours. The licensee shall maintain a record of all such inspections.

6.24 Vermin and Flies

In advance of the commencement of waste activities, the licensee shall submit to the Agency for its agreement a proposal for the control and **where necessary the** eradication of vermin and fly infestations at the facility. This proposal should include as a minimum, operator training, details on the rodenticide(s) and insecticide(s) to be used, mode and frequency of application and measures to contain sprays within the facility boundary.

6.25 In advance, of the commencement of the activities, the following information shall be submitted to the Agency for its agreement: the names, qualifications and a summary of relevant experience of all persons that will 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. Any proposed changes to the above shall be submitted in writing to the Agency for its agreement.

Reason: To provide for the protection of the environment by way of treatment and monitoring of emissions and to provide for the requirements of the Sanitary Authority in accordance with Section 52 of the Waste Management Acts 1996 to 2005.

Condition 7. Resource Use and Energy Efficiency

- 7.1 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this licence. The audit shall be carried out in accordance with the guidance published by the Agency; "Guidance Note on Energy Efficiency Auditing". The energy efficiency audit shall be repeated at intervals as required by the Agency.
- 7.2 The audit shall identify all opportunities for energy use reduction and efficiency and the recommendations of the audit will be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.
- 7.3 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible. Reductions in water usage shall be incorporated into Schedule of Environmental Objectives and Targets.
- 7.4 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets.

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

Condition 8. Materials Handling

- 8.1 Disposal or recovery of waste on-site shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.
- 8.2 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor. The waste shall be transported from the site of the activity to the site of recovery/disposal only in a manner that will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.
- 8.3 All waste processing, **handling and storage shall be carried out indoors with the exception of processing of construction and demolition waste.**
- 8.4 Waste Acceptance and Characterisation Procedures
- 8.4.1 Waste shall only be accepted at the facility from Local Authority waste collection or transport vehicles, or holders of waste permits, unless exempted or excluded, issued under the Waste Management Acts 1996 to 2005. Copies of these waste collection permits must be maintained at the facility.
- 8.4.2 In advance of commencement of waste acceptance at the facility, the licensee shall establish and maintain detailed written procedures for the acceptance and handling of wastes. **These procedures shall provide for the characterisation of sludges and other non-municipal waste types proposed to be accepted at the facility.**
- 8.4.3 Waste arriving at the facility shall be inspected at the point of entry to the facility and subject to this inspection, weighed, documented and directed to the Waste Transfer Building. Each load of waste arriving at the Waste Transfer Building or **Biological Waste Treatment Building** shall be inspected upon tipping within these buildings. Only after such inspections shall the waste be processed for disposal or recovery.
- 8.4.4 **The tipping/transfer of sludge and/or biodegradable waste from transport vehicles shall take place indoors in an enclosed space under negative pressure conditions.**
- 8.4.5 **Only sludge waste with a minimum dry solids content of 18% by weight shall be accepted for treatment at the Sludge Hub Centre.**
- 8.4.6 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 a quarantine area to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition.
- 8.4.7 Waste shall be accepted at the facility only 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. There shall be no casual public access to the facility.
- 8.5 The licensee shall ensure that waste in advance of transfer to another person shall be classified packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.

- 8.6 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run – off.
- 8.7 Waste shall be stored in designated areas, protected as may be appropriate, against spillage and leachate run-off. The waste is to be clearly labelled and appropriately segregated.
- 8.8 No waste classified as green list waste in accordance with the EU Transfrontier Shipment of Waste Regulations (Council Regulation EEC No.259/1993, as amended) shall be consigned for recovery without the agreement of the Agency.
- 8.9 Waste for disposal/recovery off-site shall be analysed in accordance with *Schedule C: Control & Monitoring* of this licence.
- 8.10 Unless approved in writing by the Agency the licensee is prohibited from mixing a hazardous waste of one category with a hazardous waste of another category or with any other non-hazardous waste.

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

Condition 9. Accident Prevention and Emergency Response

- 9.1 The licensee shall, in advance, of the commencement of the activity, ensure that a documented Accident Prevention Procedure is in place which will address the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.2 The licensee shall, in advance, of the date of commencement of the activity ensure that a documented Emergency Response Procedure is in place, which shall address any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.3 Incidents
- 9.3.1 In the event of an incident the licensee shall immediately:-
- (i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
 - (ii) isolate the source of any such emission;
 - (iii) evaluate the environmental pollution, if any, caused by the incident;
 - (iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - (v) identify the date, time and place of the incident;
 - (vi) notify the Agency and other relevant authorities.

- 9.3.2 The licensee shall provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency to:-
- (i) identify and put in place measures to avoid reoccurrence of the incident; and
 - (ii) identify and put in place any other appropriate remedial action.

9.4 Emergencies

- 9.4.1 In the event of a breakdown of equipment or any other occurrence which results in the closure of the transfer station building, any waste arriving at or already collected at the facility shall be transferred directly to appropriate landfill sites or any other appropriate facility until such time as the transfer station building is returned to a fully operational status. Such a breakdown event will be treated as an emergency and rectified as soon as possible.
- 9.4.2 All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.
- 9.4.3 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.

Reason: To provide for the protection of the environment.

Condition 10. Decommissioning, Closure, Restoration and Aftercare

- 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, subsoils, 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 Residuals Management Plan
- 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 site or part thereof. This plan shall be submitted to the Agency for agreement within six months of commencement of the activity.
- 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 the agreement of 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 Conditions 10.2.1 and 10.2.2.
- 10.3 The Residuals Management Plan shall include, as a minimum, the following:
- (i) A scope statement for the plan.

- (ii) The criteria that define the successful decommissioning of the activity or part thereof, which ensures minimum impact on the environment.
 - (iii) A programme to achieve the stated criteria.
 - (iv) Where relevant, a test programme to demonstrate the successful implementation of the decommissioning plan.
 - (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 residuals management plan, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

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

Condition 11. Notifications, Records and Reports

- 11.1 The licensee shall notify the Agency in writing, one month in advance of the intended date of waste acceptance, including for pilot scale operation, for commencement of the Scheduled Activities.
- 11.2 The licensee 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 emission point including bypasses.
 - (ii) Any emission which 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 & Monitoring* which is likely to lead to loss of control of the abatement system.
 - (iv) Any incident with the potential for environmental contamination of surface water or groundwater, or posing an environmental threat to air or land, or requiring an emergency response by the Local Authority.
- The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions.
- 11.3 In the event of any incident which relates to discharges to sewer, having taken place, the licensee shall notify the Local and Sanitary Authority as soon as practicable, after such an incident.
- 11.4 In the case of any incident which relates to discharges to water, the licensee shall notify the Local Authority and the Eastern Regional Fisheries Board as soon as practicable after such an incident.
- 11.5 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.

- 11.6 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant, (if provided) and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.
- 11.7 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility.
- 11.8 A record shall be kept at the facility of the programme for the control and eradication of vermin and fly infestations at the facility. A report on the programme shall be prepared and submitted to the Agency as part of the AER. 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 site inspection reports;
 - (iv) details of the rodenticide(s) and insecticide(s) used;
 - (v) operator training details;
 - (vi) details of any infestations;
 - (vii) mode, frequency, location and quantity of application; and,
 - (viii) measures to contain sprays within the facility boundary
- 11.9 The licensee shall as a minimum keep the following documents at the site:-
- (i) the licences relating to the facility;
 - (ii) the current EMS for the facility;
 - (iii) the previous year's AER for the facility;
 - (iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility;
 - (v) relevant correspondence with the Agency;
 - (vi) up to date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points;
 - (vii) up to date Standard Operational Procedures for all processes, plant and equipment necessary to give effect to this licence or otherwise to ensure that standard operation of such processes, plant or equipment does not result in unauthorised emissions to the environment;
 - (viii) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;
 - (ix) 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 this documentation shall be available to the Agency for inspection at all reasonable times.

- 11.10 The licensee shall submit to the Agency, by the 31st March of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule G: Annual Environmental Report* of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.
- 11.11 Emissions to Sewer
- 11.11.1 The licensee shall submit effluent monitoring results to Fingal County Council on an annual basis or as agreed with the Water Services Authority, and to the Agency, as part of the AER.
- 11.11.2 Non-trade effluent wastewater (e.g. firewater, accidental spillages) which occurs on site shall not be discharged to the sewer without the prior authorisation of Fingal County Council.
- 11.11.3 No discharge or emission to sewer shall take place which gives rise to any reaction within the sewer or to the liberation of by-products which may be of environmental significance.
- 11.11.4 No substance shall be present in such concentrations as would constitute a danger to sewer maintenance personnel working in the sewerage system or would be damaging to the fabric of sewer, or would interfere with the biological functioning of the downstream receiving wastewater treatment plant at Ringsend (Dublin City Council).
- 11.11.5 Materials classified as "Hazardous Wastes" under the Waste Management Acts, 1996 to 2005, shall not be discharged to foul sewer.
- 11.11.6 Effluent shall be screened prior to discharge to remove gross solids and avoid blockages in the sewer.
- 11.11.7 The licensee shall liaise with the Water Services Authority with regard to installation of a methane gas monitoring and alarm system. Any system installed shall be installed upstream of the discharge point to foul sewer and shall be calibrated and maintained by the Licensee.
- 11.11.8 Operational details and performance characteristics of specific processes to be used on site shall be sent to the Water Services Department of Fingal County Council by the Licensee as soon as they become available.
- 11.12 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall be maintained on a monthly basis and shall as a minimum contain details of the following:
- (i) The tonnages and EWC Code for the waste materials imported and/or sent off-site for disposal/recovery.
 - (ii) The names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number).
 - (iii) Details of the ultimate disposal/recovery destination facility for 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 wastes consigned abroad for Recovery and classified as 'Green' in accordance with the EU Transfrontier Shipment of Waste Regulations (Council Regulation EEC No. 259/1993, as amended). The rationale for the classification must form part of the record.
 - (vi) Details of any rejected consignments.

- (vii) Details of any approved waste mixing.
 - (viii) The results of any waste analyses required under *Schedule C: Control & Monitoring*, of this licence.
 - (ix) The tonnages and EWC Code for the waste materials recovered/disposed on-site.
- 11.13 A record shall be kept of each consignment of trade effluent, leachate and/or contaminated storm water removed from the facility. The record shall include the following:
- (i) the name of the carrier;
 - (ii) the date and time of removal of trade effluent, leachate and/or contaminated storm water from the facility;
 - (iii) the volume of trade effluent, leachate and/or contaminated storm water, in cubic metres, removed from the facility on each occasion;
 - (iv) the name and address of the Wastewater Treatment Plant to which the trade effluent, leachate and/or contaminated storm water was transported; and
 - (v) any incidents or spillages of trade effluent, leachate and/or contaminated storm water during its removal or transportation.
- 11.14 Waste Recovery Reports
- 11.13.1 The licensee shall as part of the EMP submit a report on the contribution by this facility to the achievement of the recovery targets stated in national and European Union waste policies and shall include the following:
- (i) proposals for the contribution of the facility to the achievement of targets for the reduction of biodegradable waste to landfill as specified in the Landfill Directive;
 - (ii) the separation of recyclable materials from the waste;
 - (iii) the recovery of Construction and Demolition Waste;
 - (iv) the recovery of metal waste;
 - (v) composting of biodegradable or green waste at the facility having regard to good practice and sustainability.
- 11.14 The licensee shall, when undertaking any works on this site, particularly in the vicinity of surface water features, refer to the requirements of the guidance document "Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites" issued by the Eastern Regional Fisheries Board
- 11.15 The Eastern Regional Fisheries Board shall be informed at least 3-4 weeks in advance of any diversion work to be carried out during channel alterations of any kind
- 11.16 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.
- 11.17 All reports shall be certified accurate and representative by the installation/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 **€24,500**, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Waste Management Acts 1996 to 2005. The first payment shall be a pro-rata amount for the period from the date of commencement of enforcement to the 31st day of December, and shall be paid to the Agency within one month from the date of **commencement of enforcement**. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Waste Management Acts 1996 to 2005, 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 defraying its costs in regard to items not covered by the said annual contribution.

12.2 Water Services Authority Charges

The licensee shall pay to the Sanitary Authority such sum as may be determined from time to time, having regard to the variations in the cost of providing drainage and the variation in effluent reception and treatment costs. Payment to be made on demand.

12.3 Environmental Liabilities

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

12.3.2 The licensee shall arrange for the completion, by an independent and appropriately qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA), which addresses the liabilities from past and present activities. The assessment shall include those liabilities and costs identified in Condition 10 for execution of the RMP. A report on this assessment shall be submitted to the Agency for agreement in advance of the commencement of the activity. 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.

12.3.3 In advance of the commencement of the activity, the licensee shall, to the satisfaction of the Agency, make financial provision to cover any liabilities identified in Condition 12.3.2. 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 12.3.1.

12.3.4 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision when implementing Conditions 12.3.1 and 12.3.2 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 the Sanitary Authority in accordance with Section 52 of the Waste Management Acts 1996 to 2005.

SCHEDULE A: Limitations

A.1 Limitations

The licensee is restricted to the carrying out either composting or anaerobic digestion operations at any one time in the Biological Waste Treatment building at this facility, but not both.

Non-hazardous waste shall only be accepted for biological treatment at this facility.

In addition the following waste related processes are authorised:

- i The transfer, bulking up and temporary storage of Municipal Solid Waste in the Waste Transfer Station building;
- ii The recovery and temporary storage of non-hazardous construction and demolition waste (incl. crushing, shredding, screening, sorting, blending) at the C&D Waste Recovery Area.
- iii The treatment (drying) of dewatered sludge cake from wastewater treatment plants.

No addition to these processes are permitted unless agreed in advance with the Agency.



A.2 Waste Categories and Quantities

| WASTE TYPE ^{Note 1} | | MAXIMUM (TONNES PER ANNUM) |
|--|--|-------------------------------|
| Non-Hazardous Wastes ^{Note 1} | Municipal Solid Waste | 65,000 |
| | Construction & Demolition | 75,000 |
| | Biodegradable Municipal Waste (EWC 20.01.08) | 45,000 |
| | Dewatered sludge waste from wastewater treatment plants (minimum 18% dry solids) | 26,500 |
| Non Hazardous Waste Total | | 211,500 |

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



SCHEDULE B: Emission Limits

B.1 Emissions to Air: Emissions from Flare Stack, Gas Compression Engine and Sludge Drier Plant

| Emission Point Reference | Flare Stack A1-1 | Gas Compression Engine Stack A1-2 | Sludge Drier Plant Stack A1-3 |
|------------------------------|--------------------------|--------------------------------------|----------------------------------|
| Volumetric Flow Rate | 3,600 m ³ /hr | 3,600 m ³ /hr | 21,240 m ³ /hr |
| Minimum discharge height (m) | 10 | 10 | 25 |

| Parameter | Emission Limit Value mg/m ³ | | |
|--|--|------------------------------|--------------------------|
| | Emission Point Reference | Emission Point Reference | Emission Point Reference |
| | Flare Stack | Gas Compression Engine Stack | Sludge Drier Plant |
| CO | 100 | 650 | 100 |
| Nitrogen Oxides as (as NO ₂) | 100 | 100 | 129 |
| Oxides of Sulphur (as SO ₂) | 15 | 15 | 85 |
| TOC | 10 | 20 | 20 |
| HCl | 30 | 30 | 5 |
| Formaldehyde | 60 | 60 | - |
| Total Particulates | 50 | 50 | 4 |

B.2 Emission Limits Values for Biofilters

Emission Point reference no: Biofilter 1 (BF-1) Biofilter 2 (BF-2)

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

B.3 Emissions to Water

There shall be no Emissions to Water of environmental significance.

B.4 Emission to Sewer

Emission Point Reference No.: Combined Process Discharge to Foul Sewer from Site (DS-1)
Emission to: Dedicated sewer to be constructed to connect to Dublin North Fringe Sewer network
Wastewater Treatment Plant Ringsend Wastewater treatment Plant
Volume to be emitted: Maximum in any one day: 510 m³
 Maximum rate per hour: Not applicable

| Parameter | Emission Limit Value | |
|---------------------------------|----------------------|-------------|
| | Temperature | 42°C (max.) |
| pH | 6 -10 | |
| | mg/l | kg/day |
| BOD | 150 | 76.5 |
| COD | 450 | 229.5 |
| Suspended Solids | 500 | 255 |
| Sulphates (as SO ₄) | 400 | 204 |
| Oils, Fats and Grease | 100 | 51 |
| Mineral Oils | 10 | 5.1 |
| Detergents | 100 | 51 |
| Orthophosphate (as P) | 100 | 51 |
| Total Phosphorus (as P) | 150 | 76.5 |
| Ammonium (as N) | 100 | 51 |
| Total Nitrogen (as N) | 150 | 76.5 |
| Arsenic | 0.5 | 0.255 |
| Chromium | 1 | 0.510 |
| Copper | 1 | 0.510 |
| Nickel | 1 | 0.510 |
| Zinc | 5 | 2.55 |
| Lead | 0.5 | 0.255 |
| Mercury | 0.1 | 0.051 |
| Cadmium | 0.1 | 0.051 |
| Fluoride (as F ⁻) | 1 | 0.510 |



B.5. Noise Emissions

| Daytime dB(A) L _{Aeq} (30 minutes) | Night-time dB(A) L _{Aeq} (30 minutes) |
|---|--|
| 55 ^{Note 1} | 45 ^{Note 1} |

Note 1: There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at the boundary of the facility.



B.6 Dust Deposition Limits:

Measured at the monitoring points (shown on Figure 3.4.1 of the EIS) D1 – D4 (or as may be amended under Condition 6.7). One additional monitoring point (D5) shall be located at the southwestern boundary of the facility.

| Level (mg/m ² per day) ^{Note 1} |
|---|
| 350 |

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

SCHEDULE C: Control & Monitoring

C.1. Control of Emissions to Air

Emission Point Reference No.: A1-1, A1-2, A1-3

Description of Treatment: As per Condition 6.1.

| Control Parameter ^{Note 1} | Monitoring ^{Note 1} | Key Equipment ^{Note 2, Note 1} |
|-------------------------------------|------------------------------|---|
| | | |

Note 1: To be agreed as part of the test programme referred to in Condition 6.1

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

C.2 Air & Odour Monitoring at Biofilter(s)^{Note 1}

Emission Point Reference No.: Biofiler(s) BF1, BF2

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|--|----------------------|---------------------------|
| Bed Media | | |
| Odour assessment ^{Note 2} | Daily | Subjective Inspection |
| Condition and depth of biofilter ^{Note 3} | Daily | Visual Inspection |
| Moisture content | Bi-annually | Standard method |
| pH | Bi-annually | pH probe |
| Ammonia | Bi-annually | Standard Method |
| Total viable counts | Bi-annually | Standard Method |
| Inlet and Outlet Gas | | |
| Ammonia | Bi-annually | Standard Method |
| Hydrogen sulphide | Bi-annually | Standard Method |
| Mercaptans | Bi-annually | Standard Method |
| Amines | Bi-annually | Standard Method |

Note 1: Where appropriate all analyses shall be carried out by a competent laboratory using standard and internationally acceptable techniques. The testing laboratory and the testing technique shall be agreed by the Agency in advance.

Note 2: This subjective assessment should be carried out by a staff member immediately upon arriving on-site.

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



C.3 Monitoring of Emissions to Air

Emission Point Reference Nos.: Flare, Gas Compression Engine, Flare Stack

| Parameter | Monitoring Frequency | | | Analysis Method/Technique |
|---------------------------------------|----------------------|------------------------|--------------------|---------------------------|
| | Flare | Gas Compression Engine | Sludge Drier Plant | |
| Volumetric Flow Rate | Quarterly | Quarterly | Quarterly | Pitot Tube Method |
| CO | Biannually | Biannually | Biannually | Flue gas analyser |
| Nitrogen Oxides as (NO ₂) | Biannually | Biannually | Biannually | Flue gas analyser |
| Oxides of Sulphur (SO ₂) | Biannually | Biannually | Biannually | Flue gas analyser |
| TOC | Biannually | Biannually | Biannually | Standard Method |
| HF | Biannually | Biannually | Biannually | Standard Method |
| HCl | Biannually | Biannually | Biannually | Standard Method |
| Formaldehyde | Biannually | Biannually | Biannually | Standard Method |
| Total Particulates | Biannually | Biannually | Biannually | Standard Method |

C.4 Monitoring of Emissions to Water

There shall be no Emissions to Water of environmental significance.

C.5 Monitoring of Storm Water Emission

Emission Point Reference No.: SW discharge 1 at (SW2) and SW discharge 2 (at SW3) as shown on Figure 3.4.1 of the EIS

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|------------------------|----------------------|---|
| pH | Weekly | Standard Method |
| BOD | Monthly | Standard Method |
| COD | Weekly | Standard Method |
| Mineral oils | Monthly | Standard Method |
| Total suspended solids | Weekly | Standard Method |
| Total Ammonia | Weekly | Standard Method |
| Total Nitrogen | Monthly | Standard Method |
| Conductivity | Weekly | Standard Method |
| Visual Inspection | Daily | Sample and examine for colour and odour |

C.6 Control of Emissions to Sewer

Emission Point Reference No.:

Combined Process Discharge to Foul Sewer from Site

| Control Parameter ^{Note 1} | Monitoring ^{Note 1} | Key Equipment ^{Note 1 Note 2} |
|--|-------------------------------------|---|
| Effluent (pH) Neutralisation | pH output from neutralisation tank | Caustic Dosing Pump Agitator |

Note 1: To be agreed as part of the test programme referred to in Condition 6.1

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



C.7 Monitoring of Emissions to Sewer

Emission Point Reference No.:

Combined Process Discharge to Foul Sewer from the Site

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|--------------------------------------|--------------------------------------|----------------------------------|
| Flow | Continuous | On-line flow meter with recorder |
| Temperature | Fortnightly ^{Note 1} | Temperature probe |
| pH | Fortnightly ^{Note 1} | pH electrode/meter |
| Biochemical Oxygen Demand | Fortnightly ^{Note 1} | Standard Method |
| Chemical Oxygen Demand | Fortnightly ^{Note 1} | Standard Method |
| Suspended Solids | Fortnightly ^{Note 1} | Standard Method |
| Sulphates (as SO₄) | Fortnightly ^{Note 1} | Standard Method |
| Oils, fats & greases | Fortnightly ^{Note 1} | Standard Method |
| Mineral Oils | Monthly | Standard Method |
| Detergents | Monthly | Standard Method |
| Orthophosphate (as P) | Monthly | Standard Method |
| Total Phosphorus (as P) | Monthly | Standard Method |
| Ammonium | Monthly | Standard Method |
| Total Nitrogen | Monthly | Standard Method |
| Arsenic | Monthly | Standard Method |
| Chromium | Monthly | Standard Method |
| Copper | Monthly | Standard Method |
| Nickel | Monthly | Standard Method |
| Zinc | Monthly | Standard Method |
| Lead | Monthly | Standard Method |
| Mercury | Monthly | Standard Method |
| Cadmium | Monthly | Standard Method |
| Fluoride | Monthly | Standard Method |
| Dissolved Methane | Monthly | Standard Method |
| Methane Gas (as % v/v) | Continuous | Standard Method |

Note 1: All samples shall be collected on a 24 hour flow proportional composite sampling basis.



C.8 Monitoring of Composting process

| Parameter | Monitoring Frequency | Monitoring equipment/method |
|---|----------------------|-----------------------------|
| <ul style="list-style-type: none"> Composting piles | | |
| Temperature vs. time | Continuous | Temperature probe/recorder |
| Oxygen Content | Daily | Oxygen Probe with recorder |
| <ul style="list-style-type: none"> Compost maturation (curing) piles | | |
| Temperature | Continuous | Temperature probe |
| Moisture | Daily | Subjective by operator. |

C.9 Noise Monitoring

Noise Monitoring Frequency and Technique

Location: Measured at the monitoring points (shown on Figure 3.4.1 of the EIS) N1 – N4 (or as may be amended under Condition 6.7). One additional monitoring point (N5) shall be located at the southwestern boundary of the facility.

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|----------------------|----------------------------|
| L(A) _{EQ} [30 minutes] | Annual | Standard ^{Note 1} |
| L(A) ₁₀ [30 minutes] | Annual | Standard ^{Note 1} |
| L(A) ₉₀ [30 minutes] | Annual | Standard ^{Note 1} |
| Frequency analysis (1/3 octave band analysis) | Annual | Standard ^{Note 1} |

Note 1: "International Standards Organisation. ISO 1996. Acoustics - Description and Measurement of Environmental Noise. Parts 1, 2 and 3."

C.10 Ambient Monitoring

Air Monitoring

C.10.1 Dust, Odour and Bioaerosol Monitoring

Emission Point Reference No.: Measured at the monitoring points (shown on Figure 3.4.1 of the EIS) D1 – D4 (or as may be amended under Condition 6.6). One additional monitoring point (D5) shall be located at the southwestern boundary of the facility.

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---------------------------------------|-----------------------------|-----------------------------------|
| Dust (mg/m ² /day) | Quarterly ^{Note 1} | Standard Method ^{Note 2} |
| PM ₁₀ (µg/m ³) | Bi-Annually | See ^{Note 5} |
| Odour | Quarterly | See ^{Note 3} |
| Bacteria | Annually | Grab sample ^{Note 4} |
| Aspergillus fumigatus | Annually | Grab sample ^{Note 4} |

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

Note 2: Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute).

Note 3: Odour measurements shall be by olfactometric measurement and analysis for mercaptans, hydrogen sulphide, ammonia, and amines.

Note 4: 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.

Note 5: As described in prEN12341 "Air Quality - field test procedure to demonstrate reference equivalence of sampling methods for PM₁₀ fraction of particulate matter" or an alternative agreed in writing by the Agency.



C.10.2 Groundwater Monitoring

Location: BH1, BH2 and BH3 of Figure 3.4.1 of the EIS

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|--|----------------------|---------------------------|
| pH | Biannually | pH electrode/meter |
| COD | Biannually | Standard Method |
| Nitrate | Biannually | Standard Method |
| Total Ammonia | Biannually | Standard Method |
| Total Nitrogen | Biannually | Standard Method |
| Conductivity | Biannually | Standard Method |
| Chloride | Biannually | Standard Method |
| Fluoride | Biannually | Standard Method |
| Organic Compounds ^{Note 1} | Biannually | Standard Method |
| Major anions and cations and Ionic Balance | Biannually | Standard Method |

Note 1: Screening for priority pollutant list substances (such as US EPA volatile and/or semi-volatile compounds).



C.10.3 Surface Water Monitoring

Location: SW1 and SW4 as shown on Figure 3.4.1 of the EIS

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---------------------------------------|----------------------------|---|
| Biological Quality (Q) Rating/Q Index | Annually ^{Note 1} | To be agreed by the Agency |
| pH | Weekly | Standard Method |
| Temperature | Weekly | Standard Method |
| BOD | Weekly | Standard Method |
| COD | Weekly | Standard Method |
| Mineral oils | Weekly | Standard Method |
| Total suspended solids | Weekly | Standard Method |
| Total Ammonia | Weekly | Standard Method |
| Total Nitrogen | Weekly | Standard Method |
| Conductivity | Weekly | Standard Method |
| Visual Inspection | Daily | Sample and examine for colour and odour |

Note 1: Monitoring period - June to September.



SCHEDULE D: Specified Engineering Works

Specified Engineering Works

Development of the facility including installation of waste-handling, processing, recycling/recovery infrastructure and installation of waste processing capacity **as well as any abatement system(s).**

Installation drainage network including of silt traps and oil interceptors.

Installation of dust/odour system.

Installation of compost facility.

Any other works notified in writing by the Agency.

SCHEDULE E: Standards for Compost/Digestate Quality

1. Maturity (Compost)

The state of the curing pile must be conducive to aerobic biological activity.

Compost shall be deemed to be mature if it meets two of the following groups of requirements or other maturity tests as may be agreed with the Agency:

1. Respiration activity after four days AT_4 is $\leq 10\text{mg}/\text{O}_2/\text{g}$ dry matter or Dynamic Respiration Index is $\leq 1,000\text{mgO}_2/\text{kg VS}/\text{h}$.
2. Germination of cress (*Lepidium sativum*) seeds and of radish (*Raphanus sativus*) seeds in compost must be greater than 90 percent of the germination rate of the control sample, and the growth rate of plants grown in a mixture of compost and soil must not differ more than 50 percent in comparison with the control sample.
3. Compost must be cured for at least 21 days; and
Compost will not reheat upon standing to greater than 20°C above ambient temperature.

Or

Compost must be cured for a six month period and offensive odours from the compost shall be minimal for the compost to be deemed mature.

2. Trace Elements (Compost/Digestate) ^{Note 1, 2 & 3}

Maximum Trace Element Concentration Limits ^{Note 4}

| Parameter (mg/kg, dry mass) | Compost/Digestate Quality Standards ^{Note 5} | | Stabilised Biowaste ^{Note 5} |
|--|---|---------|---------------------------------------|
| | Class 1 | Class 2 | |
| Cadmium (Cd) | 0.7 | 1.5 | 5 |
| Chromium (Cr) | 100 | 150 | 600 |
| Copper (Cu) | 100 | 150 | 600 |
| Mercury (Hg) | 0.5 | 1 | 5 |
| Nickel (Ni) | 50 | 75 | 150 |
| Lead (Pb) | 100 | 150 | 500 |
| Zinc (Zn) | 200 | 400 | 1500 |
| Polychlorinated Biphenyls (PCB's) | - | - | 0.4 |
| Polycyclic Aromatic Hydrocarbons (PAH's) | - | - | 3 |
| Impurities >2mm ^{Note 6} | <0.5% | <0.5% | <3% |
| Gravel and Stones >5mm ^{Note 6} | <5% | <5% | - |

Note 1: These limits apply to the compost just after the composting phase and prior to mixing with any other materials.

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 in addition to Selenium (Se) and Molybdenum (Mo).

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

Note 4: The above alone 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 5: Normalised to 30% organic matter content.

Note 6: Compost must not contain any sharp foreign matter measuring over a 2 mm dimension that may cause damage or injury to humans, animals and plants during or resulting from its intended use.

3. Pathogens (Compost)

Pathogenic organism content must not exceed the following limits:

| | | |
|-------------------------|--|-----|
| <i>Salmonella spp.</i> | Absent in 50g | n=5 |
| <i>Faecal Coliforms</i> | ≤1000 Most Probable Number (MPN) in 1g | n=5 |

Where: n = Number of samples to be tested.

SCHEDULE F: Reporting

Reports are required to be forwarded as required in the licence and as may be set out below:

| Report | Reporting Frequency ^{Note 1} | Report Submission Date |
|---|---------------------------------------|--|
| Annual Environment Report (AER) | Annually | By 31st March of each year. |
| Record of incidents | As they occur | Within five days of the incident. |
| Specified Engineering Works reports | As they arise | In advance of the works commencing. |
| Bund, tank and container integrity assessment | Every three years | Six months from the date of grant of licence; thereafter as part of the AER. |
| Monitoring of trade effluent | Quarterly | Ten days after end of the quarter being reported on. |
| Monitoring of surface water quality | Quarterly | Ten days after end of the quarter being reported on. |
| Monitoring of groundwater quality | Quarterly | Ten days after end of the quarter being reported on. |
| Drawing with monitoring locations | - | In advance of commencement of waste disposal. |
| Schedule of objectives & targets | - | Three months in advance of commencement of development. |
| Any other monitoring | As they occur | Within ten days of obtaining results. |

Note 1: Unless altered at the request of the Agency.

SCHEDULE G: Annual Environmental Report

Annual Environmental Report Content ^{Note 1}

Reporting period.
 Emissions from the facility.
 Waste activities carried out at the facility.
 Quantity and composition of waste recovered, received and disposed of during the reporting period and each previous year (relevant EWC codes to be used).
 Full title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation.
 Waste Recovery Report.
 Review of nuisance controls.
 Volume of **trade effluent/leachate and/or contaminated stormwater** produced and volume transported off-site.
 Any other items specified by the Agency.
 Waste management record.
 Resource consumption summary.
 Complaints summary.
 Schedule of Environmental Objectives and Targets.
 Environmental management programme – report for previous year.
 Environmental management programme – proposal for current year.
 Pollutant Release and Transfer Register – report for previous year.
 Pollutant Release and Transfer Register - proposal for current year.
 Noise monitoring report summary.
 Ambient monitoring summary.
 Tank and pipeline testing and inspection report.
 Reported incidents summary.
 Energy efficiency audit report summary.
 Report on the assessment of the efficiency of use of raw materials in processes and the reduction in waste generated.
 Report on progress made and proposals being developed to minimise water demand and the volume of trade effluent discharge.
 Development / Infrastructural works summary (completed in previous year or prepared for current year).
 Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.
 Closure, Restoration & Aftercare management Plan.
 Any other items specified by the Agency.

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

Signed on behalf of the said Agency
 on the xx day of xxxxxx, 200X

xxxxxxx,

Authorised Person