

This licence was amended on 25<sup>th</sup> October 2006 under Section 42B(1) for the Waste Management Acts, 1996 to 2005. The details of Amendment A must be read in conjunction with this licence. The amendment document is entitled W0195-01 S42B(1)AmendmentA



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## WASTE LICENCE

<b>Waste Licence</b>	195-1
<b>Register No:</b>	
<b>Licensee:</b>	McGill Environmental Systems (Ireland) Limited
<b>Location of Facility:</b>	Ballynalurgan, Kilmainhamwood, Kells, County Meath.

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## **INTRODUCTION**

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

This licence is for the operation of an indoor composting facility on a Greenfield site at Ballynalurgan, Kilmainhamwood, Kells, Co Meath. McGill Environmental Systems (Ireland) Ltd propose to accept non-hazardous biodegradable wastes (primarily sewage sludge, industrial sludges, household and commercial waste for composting) at this facility.

The quantity of waste to be accepted at the facility is limited to 20,800 tonnes per annum (equivalent to 400 tonnes per week).

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

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

The licence sets out in detail the conditions under which McGill Environmental Systems (Ireland) Limited will operate and manage this facility.

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# ***DECISION & REASONS FOR THE DECISION***

## ***Reasons for the Decision***

On the basis of the information before it, the Environmental Protection Agency is satisfied that the waste activity, or activities, licensed hereunder in Part I will comply with the requirements of Section 40(4) of the Waste Management Acts, 1996 to 2003.

In reaching this decision the Environmental Protection Agency has considered the application and supporting documentation received from the applicant, all submissions and an objection received from other parties and the reports of its inspectors.

## **INTERPRETATION**

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Acts, 1996 to 2003, (the Acts), unless otherwise defined in this section.

<b>Aerosol</b>	A suspension of solid or liquid particles in a gaseous medium.
<b>Adequate lighting</b>	20 lux measured at ground level.
<b>Agreement</b>	Agreement in writing.
<b>Annually</b>	At approximately twelve monthly intervals.
<b>Attachment</b>	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
<b>Application</b>	The application by the licensee for this waste licence.
<b>Appropriate facility</b>	A waste management facility, duly authorised under relevant law and technically suitable.
<b>BAT</b>	Best Available Technique as defined in Waste Management Acts 1996 to 2003.
<b>Bioaerosol</b>	An aerosol of biological particles.
<b>Bi-annually</b>	All or part of a period of six consecutive months.
<b>Biodegradable waste</b>	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
<b>CEN</b>	Comité Européen De Normalisation – European Committee for Standardisation.
<b>Compost</b>	The stable, sanitised and humus-like material rich in organic matter and free from offensive odours, resulting from the composting process of separately collected biodegradable waste, which complies with the quality standards of <i>Schedule E: Standards for Compost Quality</i> , of this licence.
<b>Condition</b>	A condition of this licence.
<b>Consignment Note</b>	All movements of hazardous waste within Ireland must be accompanied by a “C1” consignment note issued by a local authority under the Waste Management (Movement of Hazardous Waste) Regulations (SI No. 147 of 1998). Transfrontier shipment notification and movement/tracking form numbers are required for all exports of waste from, into or through the state under the Waste Management (Transfrontier Shipment of Waste) Regulations (SI No. 149 of 1998).

<b>Construction and Demolition Waste</b>	Wastes that arise from construction, renovation and demolition activities: Chapter 17 of the EWC or as otherwise may be agreed.
<b>Containment boom</b>	A boom which can contain spillages and prevent them from entering drains or watercourses.
<b>Daytime</b>	8.00 a.m. to 8.00 p.m.
<b>Documentation</b>	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
<b>Drawing</b>	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
<b>Emergency</b>	Those occurrences defined in Condition 9.4.
<b>Emission Limits</b>	Those limits, including concentration limits and deposition levels established in <i>Schedule C: Emission Limits</i> of this licence.
<b>European Waste Catalogue (EWC)</b>	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.
<b>Fortnightly</b>	A minimum of 24 times per year, at approximately two week intervals.
<b>Trade Effluent</b>	Drainage from waste processing building, wheelwash, truck wash, ramp, weighbridges vehicle cleaning and ejector trailer parking areas and run-off from hardstanding areas associated with waste processing.
<b>Green waste</b>	Waste wood (excluding processed timber), plant matter such as grass cuttings, and other vegetation.
<b>Hours of Operation</b>	The hours during which the facility is authorised to be operational. The hours of operation of a facility are usually longer than the hours of waste acceptance to facilitate preparatory and completion works, such as the removal and laying of daily cover. Different activities within the facility, such as the civic waste facility, may have different hours of waste acceptance.
<b>Hours of Waste Acceptance</b>	The hours during which the facility is authorised to accept waste. Different activities within the facility, such as the civic waste facility, may have different hours of waste acceptance.
<b>Incident</b>	The following shall constitute an incident for the purposes of this licence: <ul style="list-style-type: none"> <li>a) an emergency;</li> <li>b) any emission which does not comply with the requirements of this licence;</li> <li>c) any exceedence of the daily duty capacity of the waste handling equipment;</li> <li>d) any trigger level specified in this licence which is attained or exceeded; and</li> <li>e) any indication that environmental pollution has, or may have, taken place.</li> </ul>
<b>Industrial Waste</b>	As defined in Section 5(1) of the Act.
<b>Inert waste</b>	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.

<b>Landfill Directive</b>	Council Directive 1999/31/EC.
<b>Licence</b>	A Waste Licence issued in accordance with the Acts.
<b>Licensee</b>	McGill Environmental Systems (Ireland) Ltd.
<b>Liquid Waste</b>	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
<b>Maintain</b>	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to adequately perform its function.
<b>Mobile Plant</b>	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.
<b>Monthly</b>	A minimum of 12 times per year, at approximately monthly intervals.
<b>Municipal waste</b>	As defined in Section 5(1) of the Act.
<b>Night-time</b>	10.00 p.m. to 8.00 a.m.
<b>Noise Sensitive Location (NSL)</b>	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.
<b>Oil Separator</b>	Device installed according to the draft European Standard prEN 858 (Installations for the separation of light liquids, e.g. oil and petrol).
<b>Recyclable Materials</b>	Those waste types, such as cardboard, batteries, gas cylinders, etc, which may be recycled.
<b>Quarterly</b>	At approximately three monthly intervals.
<b>Sample(s)</b>	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
<b>Sludge</b>	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment, with greater than 2% dry matter.
<b>SOP</b>	Standard Operating Procedure.
<b>Specified Emissions</b>	Those emissions listed in <i>Schedule C: Emission Limits</i> of this licence.
<b>Specified Engineering Works</b>	Those engineering works listed in <i>Schedule B: Specified Engineering Works</i> of this licence.
<b>Standard Method</b>	A National, European or internationally recognised procedure (eg, I.S. EN, ISO, CEN, BS or equivalent), as 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.
<b>TOC</b>	Total Organic Carbon.

<b>Trigger Level</b>	A parameter value specified in the licence, the achievement or exceedance of which requires certain actions to be taken by the licensee.
<b>Weekly</b>	During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with no more than one measurement in any one week.
<b>White Goods</b>	Refrigerators, cookers, ovens and other similar appliances.
<b>EPA Working Day</b>	Refers to the following hours; 9.00 a.m. to 5.30 p.m. Monday to Friday inclusive.

## ***Part I Schedule of Activities Licensed***

In pursuance of the powers conferred on it by the Waste Management Acts, 1996 to 2003, the Environmental Protection Agency (the Agency), under Section 40(1) of the said Acts hereby grants this Waste Licence to McGill Environmental Systems (Ireland) Ltd. to carry on the waste activities listed below at Ballynalurgan, Kilmainhamwood, Kells, County Meath, subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

### ***Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts, 1996 to 2003***

<b>Class 6</b>	<b>Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 10 of this Schedule:</b>
<b>Class 13.</b>	<b>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.</b>

### ***Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts, 1996 to 2003***

<b>Class 2</b>	<b>Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).</b>
<b>Class 13.</b>	<b>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.</b>

## ***PART II CONDITIONS***

### **CONDITION 1 SCOPE OF THE LICENCE**

- 1.1 Waste activities at the facility shall be restricted to those listed and described in Part I: Activities Licensed and authorised by this licence.
- 1.2 For the purposes of this licence, the facility is the area of land outlined in red on Drawing No. MESM001 of the application. Any reference in this licence to “facility” shall mean the area thus outlined in red.
- 1.3 This licence is for the purposes of waste licensing under the Waste Management Acts 1996 to 2003 only and nothing in this licence shall be construed as negating the licensee’s statutory obligations or requirements under any other enactments or regulations.
- 1.4 Unless otherwise agreed with the Agency, only the wastes as outlined in *Schedule A: Waste Acceptance* of this licence and as listed under Annex 1 of the EC Working Document ‘Biological Treatment of Biowaste’ (2<sup>nd</sup> draft), 2001 or subsequent amendments shall be accepted at the facility for the production of compost.
- 1.5 No hazardous wastes or liquid wastes shall be accepted at the facility.
- 1.6 Waste Acceptance Hours and Hours of Operation
  - 1.6.1 Waste shall be accepted at the facility only between the hours of 08:00 to 18:00 Monday to Friday inclusive and 08:00 to 13:00 on Saturdays.
  - 1.6.2 Waste shall not be accepted or handled at the facility on Sundays or on Bank Holidays without the written agreement of the Agency.
  - 1.6.3 Waste shall be handled at the facility only between the hours of 08:00 to 18:00 Monday to Friday inclusive and 08:00 to 13:00 on Saturdays.
- 1.7 Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any Condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary and shall notify the licensee in writing of any such modification or alteration. Every such plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency. Every such plan, programme or proposal agreed by the Agency shall be covered by the conditions of this licence.
- 1.8 Prior to commencing waste activities the licensee must satisfy the Agency that it has obtained the written consent of the Department of Agriculture and Food to treat animal by-products by composting at the facility. A copy of the consent shall be submitted to the Agency one month before waste activities commence and a copy made available for inspection by authorised persons of the Agency.

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

### **CONDITION 2 MANAGEMENT OF THE FACILITY**

- 2.1 Facility Management
  - 2.1.1 The licensee shall employ a suitably qualified and experienced facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation.
  - 2.1.2 Both the facility manager and deputy, and any replacement manager or deputy, shall successfully complete both the FAS waste management training programme (or equivalent agreed by the Agency) and associated on site assessment appraisal within twelve months of appointment.

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

## 2.2 Management Structure

2.2.1 Prior to the commencement of waste activities, the licensee shall submit written details of the management structure of the facility to the Agency. Any proposed replacement in the management structure shall be notified in advance in writing to the Agency. Written details of the management structure shall include the following information.

- a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;
- b) details of the responsibilities for each individual named under a) above; and
- c) details of the relevant education, training and experience held by each of the persons nominated under a) above.

## 2.3 Environmental Management System (EMS)

2.3.1 The licensee shall establish and maintain an EMS. Within eighteen months (shorter period for new facilities) from the date of grant of this licence, the licensee shall submit to the Agency for its agreement a proposal for a documented Environmental Management System (EMS) for the facility. Following the agreement of the Agency, the licensee shall establish and maintain such a system. The EMS shall be updated on an annual basis with amendments being submitted to the Agency for its agreement.

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

### 2.3.2.1 Schedule of Environmental Objectives and Targets

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

### 2.3.2.2 Environmental Management Plan (EMP)

The EMP shall include, as a minimum, the following:

- (i) methods by which the objectives and targets will be achieved in the coming year and the designation of responsibility for targets;
- (ii) any other items required by written guidance issued by the Agency.

### 2.3.2.3 Corrective Action Procedures

The Corrective Action Procedures shall detail the corrective actions to be taken should any of the procedures detailed in the EMS not be followed.

### 2.3.2.4 Awareness and Training Programme

The Awareness and Training Programme shall identify training needs, for personnel who work in or have responsibility for the licensed facility.

### 2.3.2.5 Maintenance Programme

The licensee shall establish and maintain within six months of the date of grant of this licence a structured programme for maintenance based on technical descriptions of equipment. This programme shall be supported by appropriate record keeping systems and diagnostic testing.

## 2.4 Communications Programme

- 2.4.1 The licensee shall establish and maintain a 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. This shall be established within six months of the date of grant of this licence.

**REASON:** *To make provision for the proper 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 FACILITY INFRASTRUCTURE

- 3.1 The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as required by the conditions of this licence.

### 3.2 Specified Engineering Works

- 3.2.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule B: Specified Engineering Works* of this licence, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.
- 3.2.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 3.2.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation, as relevant. The validation report shall be made available to the Agency on request. The report shall include the following information:-
- a) a description of the works;
  - b) as-built drawings of the works;
  - c) any other information requested in writing by the Agency.

### 3.3 Facility Notice Board

- 3.3.1 The licensee shall 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.
- 3.3.2 The board shall clearly show:-
- a) the name and telephone number of the facility;
  - b) the normal hours of opening;
  - c) the name of the licence holder;
  - d) an emergency out of hours contact telephone number;
  - e) the licence reference number; and
  - f) where environmental information relating to the facility can be obtained.

### 3.4 Facility Security

- 3.4.1 Security and stockproof fencing and gates shall be installed and maintained as described in section D. 1a of the application. The security fence and gates shall be at the locations shown on Drawing No. MESM007 of the application. The base of the fencing shall be set in the ground.
- 3.4.2 The licensee shall remedy any defect in the gates and/or fencing as follows:-
- a) a temporary repair shall be made by the end of the working day; and
  - b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

- 3.5 Facility Roads and Hardstanding
- 3.5.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.
- 3.5.2 The facility entrance area, the access road to the Waste Facility shall be paved and maintained in accordance with section D.1 of the application.
- 3.5.3 The licensee shall provide, and maintain an impermeable hardstanding surface in the areas of the facility shown on Drawing No. MESM007 of the application. In addition, the floor of the buildings and hardstanding areas at the facility shall be concreted and constructed to British Standard 8110.
- 3.6 Facility Office
- 3.6.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 3.6.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.
- 3.7 Waste Inspection and Quarantine Areas
- 3.7.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility.
- 3.7.2 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.
- 3.7.3 Drainage from the waste quarantine area shall be directed to the effluent collection system.
- 3.8 Weighbridge and Wheel Cleaning
- 3.8.1 The licensee shall provide and maintain a weighbridge and access to appropriate wheel cleaning equipment at the facility.
- 3.9 Waste handling, ventilation and processing plant
- 3.9.1 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:-
- a) 100% duty capacity;
  - b) 20% standby capacity available on a routine basis; and
  - c) Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.
- 3.9.2 Within six months from the date of grant of this licence, 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: Waste Acceptance* of this licence.
- 3.9.3 The quantity of waste to be accepted at the facility on a daily basis shall not exceed the duty capacity of the equipment at the facility. Any exceedance of this intake shall be treated as an incident.
- 3.10 Tank and Drum Storage Areas
- 3.10.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.
- 3.10.2 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:-
- a) 110% of the capacity of the largest tank or drum within the bunded area; or
  - b) 25% of the total volume of substance which could be stored within the bunded area.

- 3.10.3 All drainage from bunded areas shall be diverted for collection and safe disposal.
- 3.10.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.10.5 The integrity and water tightness of all the bunds and their resistance to penetration by water or other materials stored therein shall be confirmed by the licensee and shall be reported to the Agency as part of the first AER.
- This confirmation shall be repeated at least once every three years thereafter and reported to the Agency on each occasion.
- 3.10.6 While awaiting collection, mature compost shall be stored indoors protected against uncontrolled run-off and nuisance formation.
- 3.11 Silt Traps and Oil Separators/Interceptors
- 3.11.1 The licensee shall install and maintain silt traps and oil interceptors at the facility to ensure that all surface water discharges from the facility pass through a silt trap and oil interceptor prior to discharge. The interceptors shall be a Class I full retention interceptor and the silt traps and interceptors shall be in accordance with European Standard prEN 858 (installations for the separation of light liquids).
- 3.12 Drainage system, pipeline testing
- 3.12.1 Replacement of Infrastructure
- Monitoring infrastructure which is damaged or proves to be unsuitable for its purpose shall be replaced within three months of it being damaged or recognised as being unsuitable.
- 3.13 The licensee shall provide and maintain an odour abatement system on the facility which satisfies the following requirements:
- a) Air management system, to ensure no significant escape of odours or dust, including negative pressure throughout the building;
  - b) A biofilter of appropriate size and structure.

**REASON:** *To provide appropriate infrastructure for the protection of the environment.*

## **CONDITION 4 Decommissioning**

- 4.1 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.

**REASON:** *To provide for the restoration of the facility.*

## **CONDITION 5 FACILITY OPERATIONS**

- 5.1 All waste processing shall be carried out inside the waste processing building.
- 5.2 Waste Acceptance and Characterisation Procedures
- 5.2.1 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 (Collection Permit) Regulations 2001. Copies of these waste collection permits must be maintained at the facility.
- 5.2.2 Waste Acceptance Procedures shall be carried out in accordance with section E3 of the licence application. Such procedures should be documented as part of the EMS as required by Condition 2.

- 5.2.3 Waste arriving at the facility shall be inspected at the point of entry to the facility and subject to this inspection directed to the Waste Processing Building. Each load of waste arriving at the Waste Processing Building shall be inspected upon tipping within this building. Only after such inspections shall the waste be processed for recovery.
- 5.2.4 Any waste deemed unsuitable for processing at the facility and/or in contravention of this licence shall be immediately separated and removed from the facility at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine area to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition.
- 5.3 Operational Controls
  - 5.3.1 Scavenging shall not be permitted at the facility.
  - 5.3.2 Gates shall be locked shut when the facility is unsupervised.
  - 5.3.3 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
  - 5.3.4 Fuels shall be stored only at appropriately bunded locations on the facility.
  - 5.3.5 All tanks and drums shall be labelled to clearly indicate their contents.
  - 5.3.6 There shall be no casual public access to the facility.
  - 5.3.7 All composting operations and materials storage shall be carried out indoors.
- 5.4 Off-site Disposal and Recovery
  - 5.4.1 Waste sent off-site for recovery or disposal shall be conveyed only by a waste contractor agreed by the Agency.
  - 5.4.2 All waste transferred from the facility shall be transferred only to an appropriate facility agreed by the Agency.
  - 5.4.3 All wastes removed off-site for recovery or disposal shall be transported from the facility to the consignee in a manner which will not adversely affect the environment.
- 5.5 Maintenance
  - 5.5.1 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.
  - 5.5.2 The licensee shall maintain and clearly label and name all sampling and monitoring locations.
- 5.6 Landscaping
  - 5.6.1 Landscaping of the facility as described in Drawing MESM006 of the application shall be carried out within six months of the date of grant of this licence.
- 5.7 Resource Use and Energy Efficiency
  - 5.7.1 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 licensee shall carry out the audit in accordance with Agency guidance. The audit programme shall be submitted to the Agency in writing at least one month before the audit is to be carried out. A copy of the audit report shall be available on-site for inspection by authorised persons of the Agency and a summary of the audit findings shall be submitted as part of the Annual Environmental Report. The energy efficiency audit shall be repeated at intervals as required by the Agency.
  - 5.7.2 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.
  - 5.7.3 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.

- 5.7.4 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.
- 5.8 Compost Quality
- 5.8.1 Compost produced shall comply with the quality standards as set out in *Schedule E: Standards for Compost Quality* of this licence. Analysis of the compost shall be in accordance with the requirements of *Schedule E*.
- 5.8.2 Any compost not meeting any standard as per *Schedule E: Standards for Compost Quality* may be reused in the process or handled as a waste and details recorded as per Condition 10.
- 5.8.3 A record of the quantity of compost produced per annum shall be maintained on-site and available for inspection and shall be reported in the AER.

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

## CONDITION 6 EMISSIONS

- 6.1 No specified emission from the facility shall exceed the emission limit values set out in *Schedule C: Emission Limits* of this licence. There shall be no other emissions of environmental significance.
- 6.2 The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.
- 6.3 Emission limits for emissions to atmosphere in this licence shall be interpreted in the following way.
- 6.3.1 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 all other parameters, no 30 minute mean value shall exceed the emission limit value.
- (iii) For flow, no hourly or daily mean value shall exceed the emission limit value.
- 6.4 Emissions to Surface Water
- 6.4.1 No trade effluent shall be discharged to surface water.
- 6.5 There shall be no direct emissions to groundwater.
- 6.6 There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the noise sensitive locations.

**REASON:** *To control emissions from the facility and provide for the protection of the environment.*

## CONDITION 7 NUISANCE CONTROL

- 7.1 The licensee shall ensure that vermin, birds, flies, mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.
- 7.2 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.
- 7.3 Litter Control
- 7.3.1 The measures and infrastructure as described in section F.5 of the application shall be applied to control litter at the facility.
- 7.3.2 All loose litter or other waste, placed on or in the vicinity of the facility, other than in accordance with the requirements of this licences, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00am of the next working day after such waste is discovered.
- 7.3.3 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.
- 7.4 Dust/Odour Control
- 7.4.1 In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.
- 7.4.2 The licensee shall install and provide adequate measures for the control of odours and dust emissions, including fugitive dust emissions, from the facility. Such measures shall at a minimum include the following:-
- 7.4.2.1 Dust curtains shall be maintained on the entry/exit points from the waste processing building, all other doors in this building shall be kept closed where possible.
- 7.4.2.2 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.

**REASON:** *To provide for the control of nuisances.*

## CONDITION 8 MONITORING

- 8.1. The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule D: Monitoring* of this licence. Unless otherwise specified by this licence, all environmental monitoring shall commence no later than two months after the date of grant of this licence.
- 8.2 The licensee shall amend the frequency, locations, methods and scope of monitoring as required by this licence only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.
- 8.3 Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturers' instructions (if any) so that all monitoring results accurately reflect any emission, discharge or environmental parameter.
- 8.4 The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.
- 8.5 The licensee shall maintain all sampling and monitoring points, and clearly label and name all sampling and monitoring locations, so that they may be used for representative sampling and monitoring.
- 8.6 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the

Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

- 8.7 Within six months of the date of grant of this licence, 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.
- 8.8 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. Prior written agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.
- 8.9 Nuisance Monitoring  
The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, mud, dust and odours.
- 8.10 Bioaerosol Monitoring  
Prior to the commencement of waste activities, the licensee shall submit for approval by the Agency, a baseline bioaerosol monitoring study for the site.

**REASON:** *To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

## **CONDITION 9 CONTINGENCY ARRANGEMENTS**

- 9.1. In the event of an incident the licensee shall immediately:-
- a) identify the date, time and place of the incident;
  - b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
  - c) isolate the source of any such emission;
  - d) evaluate the environmental pollution, if any, caused by the incident;
  - e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
  - f) provide a proposal to the Agency for its agreement within one month of the incident occurring 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.
- 9.2. The licensee shall, within six months of date of grant of this licence, 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. The licensee shall, within six months of the date of grant of this licence, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment. This shall include a risk assessment to determine the requirements at the facility for fire fighting and fire water retention facilities. The Fire Authority shall be consulted by the licensee during this assessment.
- 9.3. 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.

#### 9.4. Emergencies

- 9.4.1. In the event of a complete breakdown of equipment or any other occurrence which results in the closure of the processing 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 processing 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.
- 9.4.4. In the event that monitoring of local wells indicates that the facility is having a significant adverse effect on the quantity and/or quality of the water supply this shall be treated as an emergency and the licensee shall provide an alternative supply of water to those affected.
- 9.4.5. The licensee shall provide and maintain a storage tank/interceptor for the temporary storage of liquid runoff/ liquid waste.

#### 9.5. Accident Prevention

- 9.5.1. The licensee shall, within six months of date of grant of this licence, ensure that a documented Accident Prevention Policy 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.

**REASON:** *To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

## CONDITION 10 RECORDS

10.1 The licensee shall keep the following documents at the facility office:-

- a) the current waste licence relating to the facility;
- b) the current EMS for the facility;
- c) the previous year's AER for the facility; and
- d) all written procedures produced by the licensee which relate to the licensed activities.

10.2 The licensee shall maintain a record for each load of waste arriving at and departing from the facility. The licensee shall record the following:-

- a) the date;
- b) the name of the carrier (including if appropriate, the waste carrier registration details);
- c) the vehicle registration number;
- d) the name of the producer(s)/collector(s) of the waste as appropriate;
- e) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;
- f) a description of the waste including the associated EWC codes;
- g) the quantity of the waste, recorded in tonnes;
- h) the name of the person checking the load; and
- i) where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed.

10.3 The following records shall be maintained by the licensee:-

- a) the types and quantities of waste recovered at the facility each year. These records shall include the relevant EWC Codes;

- b) all training undertaken by facility staff;
  - c) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;
  - d) details of all nuisance inspections; and
  - e) 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.
- 10.4 The licensee shall maintain a record of all complaints relating to the operation of the activity. Each such record shall give details of the following:-
- a) date and time of the complaint;
  - b) the name of the complainant;
  - c) details of the nature of the complaint;
  - d) actions taken on foot of the complaint and the results of such actions; and
  - e) the response made to each complainant.
- 10.5 A record shall be kept at the facility of the programme for the control and eradication of vermin and fly infestations at the facility. These records shall include as a minimum the following:-
- a) the date and time during which spraying of insecticide is carried out;
  - b) contractor details;
  - c) contractor logs and site inspection reports;
  - d) details of the rodenticide(s) and insecticide(s) used;
  - e) operator training details;
  - f) details of any infestations;
  - g) mode, frequency, location and quantity of application; and
  - h) measures to contain sprays within the facility boundary.
- 10.6 Where compost product contains sewage sludge the licensee shall retain the following records on site:
- a) A copy of the notifications to the Local Authority as required under Article 8 (1) and Article 8 (3) of SI 148 of 1998 (Waste Management (Use of sewage sludge in agriculture) Regulations, 1998).
  - b) This shall include *inter alia*; sludge analysis, records of sludge quantities, sludge properties, treatment type and location/name of the recipient of the sludge (sludge meaning compost containing treated sludge).

**REASON:** To provide for the keeping of proper records of the operation of the facility.

## CONDITION 11 REPORTS AND NOTIFICATIONS

- 11.1 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in:
- (a) 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, products or wastes to be generated or accepted, or
  - b) Any changes in:
    - The site management and control with adverse environmental significance,

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

- 11.2 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:-
- a) be sent to the relevant regional Agency office (to be advised);
  - b) comprise one original and two copies unless additional copies are required;
  - c) be formatted in accordance with any written instruction or guidance issued by the Agency;
  - d) include whatever information as is specified in writing by the Agency;
  - e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;
  - f) be submitted in accordance to the relevant reporting frequencies specified by this licence, such as in *Schedule E: Standards for Compost Quality* of this licence;
  - g) be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and
  - h) be transferred electronically to the Agency's computer system if required by the Agency.
- 11.3 In the event of an incident occurring on the facility, the licensee shall:-
- a) notify the Agency as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident;
  - b) submit a written record of the incident, including all aspects described in Condition 9.1 (a-e), to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident;
  - c) in the event of any incident which relates to discharges to surface/sewer water, notify the Sanitary Authority as soon as practicable and in any case not later than 10:00am on the following working day after such an incident; and
  - d) Should any further actions be taken as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.
- 11.4 Waste Recovery Reports
- The licensee shall as part of the AER submit a report on the contribution by this facility to the achievement of the recovery targets stated in national and European Union waste policies and shall include the following:-
- a) 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;
  - b) the separation of recyclable materials from the waste; and
  - c) inert waste to be used for cover/restoration material at the facility.
- 11.5 Vermin and Flies
- 11.5.1. Within three months of the date of this licence, the licensee shall submit to the Agency for its agreement a proposal for the management 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.
- 11.6 Monitoring Locations
- 11.6.1. 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. The drawing(s) shall include the reference code of each monitoring point.

11.7 Annual Environmental Report

11.7.1 The licensee shall submit to the Agency for its agreement, by 31<sup>st</sup> March of each calendar year an Annual Environmental Report (AER).

11.7.2 The AER shall include as a minimum the information specified in *Schedule F: Content of Annual Environmental Report* of this licence and shall be prepared in accordance with any relevant written guidance issued by the Agency.

**REASON:** *To provide for proper reporting and notification of the Agency.*

## CONDITION 12 CHARGES AND FINANCIAL PROVISIONS

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of €7,626, 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 Waste Management Acts 1996 to 2003. 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 2003, 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.

**REASON:** *To provide for adequate financing for monitoring*

## SCHEDULE A : Waste Acceptance

### A.1 Waste Acceptance

Table A.1 Waste Categories and Quantities

WASTE TYPE <sup>note 1</sup>	MAXIMUM (TONNES PER ANNUM)
Non-hazardous waste for composting including industrial and sewage biosolids, separated household and catering waste and other non-hazardous biodegradable material household waste	20,800
<b>TOTAL</b>	20,800

**Note 1:** or other compatible wastes to be agreed in advance by the Agency.

## SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Installation of waste handling, recycling/recovery infrastructure Any other works notified in writing by the Agency.

## SCHEDULE C : Emission Limits

**C.1 Noise Emissions:** (Measured at the monitoring points indicated in Drawing MESM009 of the application).

Day dB(A) $L_{eq}$ (30 minutes)	Night dB(A) $L_{eq}$ (30 minutes)
55	45

**C.2 Dust Deposition Limit:** Measured at the monitoring points indicated in Drawing MESM009 of the application.

Level (mg/m <sup>2</sup> /day) <sup>Note 1</sup>
350

**Note 1:** 30 day composite sample with the results expressed as mg/m<sup>2</sup> /day.

## SCHEDULE D : Monitoring

Monitoring to be carried out as specified below.

### D.1 Monitoring Locations

Monitoring locations shall be those as set out in Drawing MESM009 of the application.

**Table D.1.1 Noise and surface water Monitoring Locations**

NOISE	Dust	Air	Groundwater
STATIONS	STATIONS		
N	D1	A1	B1
	D2	A2	B2
	D3	A3	B3

**Table D.1.2 Emissions to Atmosphere Monitoring Locations**

MICRO-ORGANISMS
STATIONS
Exhaust vent from the processing building and other locations as may be specified by the Agency

### D.2 Noise

**Table D.2.1 Noise Monitoring Frequency and Technique**

Parameter	Monitoring Frequency	Analysis Method/Technique
L(A) <sub>EQ</sub> [30 minutes]	Quarterly	Standard <sup>Note 1</sup>
L(A) <sub>10</sub> [30 minutes]	Quarterly	Standard <sup>Note 1</sup>
L(A) <sub>90</sub> [30 minutes]	Quarterly	Standard <sup>Note 1</sup>
Frequency Analysis(1/3 Octave band analysis)	Quarterly	Standard <sup>Note 1</sup>

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

### D.3 Surface Water Emissions

**Table D.3.1 Surface water Monitoring Frequency and Techniques**

Parameter	Monitoring Frequency	Analysis Method/Technique
<b>pH</b>	Quarterly	Electrometry
<b>Ammonia (as NH<sub>4</sub>)</b>	Quarterly	Standard Methods <sup>Note 1</sup>
<b>Suspended Solids</b>	Quarterly	Standard Methods <sup>Note 1</sup>
<b>Mineral Oils</b>	Quarterly	Standard Methods <sup>Note 1</sup>
<b>Chloride</b>	Quarterly	Standard Methods <sup>Note 1</sup>

**Note 1:** "Standards Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed., American Public Health Association, 1015 Fifteenth Street, Washington DC 20005, USA.

### D.4 Groundwater Monitoring

**Table D.4.1**

Parameter <sup>Note 1</sup>	Ground water Monitoring Frequency
<b>Groundwater Level (wells)</b>	Biannual
<b>Ammoniacal Nitrogen</b>	Biannual
<b>Chloride</b>	Biannual
<b>PH</b>	Biannual
<b>Sulphate (SO<sub>4</sub>)</b>	Biannual
<b>Metals / non metals</b> <sup>Note 2</sup>	Annually
<b>List I/II organic substances (Screen)</b> <sup>Note 3</sup>	Annually
<b>Nitrate</b>	Annually
<b>Total P/orthophosphate</b>	Annually
<b>Faecal Coliforms</b>	Annually
<b>Total Coliforms</b>	Annually

**Note 1:** All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.

**Note 2:** Metals and elements to be analysed by AA/ICP should include as a minimum: boron, cadmium, calcium, chromium (total), copper, iron, lead, magnesium, manganese, nickel, potassium, sodium and zinc.

**Note 3:** Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list I/II Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include: volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (USEPA method 525 or equivalent, and pesticides (USEPA method 608 or equivalent).

### D.5 Emissions from Biodegradable Waste Building & Air Quality Monitoring

**Table D.5.1 Dust, and Micro-organisms Monitoring Frequency and Technique**

Parameter <sup>Note 1</sup>	Monitoring Frequency	Analysis Method/Technique
<b>Dust (mg/m<sup>2</sup>/day)</b>	Quarterly <sup>Note 2</sup>	Standard Method <sup>Note 3</sup>
<b>Bacteria</b>	Annually	Grab sample <sup>Note 4</sup>
<b>Aspergillus fumigatus</b>	Annually	Grab sample <sup>Note 4</sup>

**Note 1:** Meteorological monitoring to be carried out concurrently with all above monitoring.

**Note 2:** Twice during the period May to September, or as otherwise specified in writing by the Agency.

**Note 3:** Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute)

**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.

**Table D.5.2 Emissions to Atmosphere: Abatement/Treatment Control at Biodegradable Waste Composting Plant**

Control Parameter	Monitoring Required	Monitoring Equipment
<b>Biofilter</b>		
<b>Inlet and Outlet Gas</b>		
Ammonia	Monthly	Colorimetric Indicator Tubes Note 1
Hydrogen sulphide	Monthly	Colorimetric Indicator Tubes Note 1
Mercaptans	Monthly	Colorimetric Indicator Tubes Note 1
<b>Bed Media</b>		
Odour Assessment	Daily	Subjective Impression
Condition and depth of biofilter Note 2	Daily	Visual Inspection
Moisture content	Monthly	Standard laboratory method Note 1
pH	Bi-annually	
Ammonia	Bi-annually	Standard laboratory method Note 1
Total viable counts	Bi-annually	Standard laboratory method Note 1
<b>General</b>		
Sprinkler System	Check operation Daily	Visual Inspection
Fan	Check operation Daily	Visual Inspection
Negative Pressure	Monthly	Air Current Tubes

All measurements shall be made at peak bed loading.

**Note 1:** Or an equivalent method acceptable to the Agency.

**Note 2:** The biofilter shall be examined to ensure that no channelling is evident. Turning, restructuring and the addition of supplementary bed materials, or total bed replacement shall be carried out, as required, subject to bed performance.

# SCHEDULE E :Standards for Compost Quality

Unless otherwise agreed in writing by the Agency, the following criteria are deemed a quality standard for the use of compost as a soil improver and should not be deemed as criteria for fertiliser. In addition N, P, K, NH<sub>4</sub>-N, NO<sub>3</sub>-N, pH and dry matter content should also be measured.

Compost shall be deemed unsatisfactory if more than 10% of samples fail the criteria below. No sample shall exceed 1.2 times the quality limit values set.

## 1. Maturity

Compost shall be deemed to be mature if it meets two of the following requirements:

- C/N ratio ≤ 25
- oxygen uptake rate ≤ 150 mg O<sub>2</sub>/kg volatile solids per hour; and
- 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.
- Elimination of the following test organisms (used to evaluate composting system efficiency in removing plant pathogens and weed seeds during the composting process): Plasmodiophora brassicae, tobacco-mosaic-virus (TMV) and tomato seeds.

Guidance on test may be obtained from the German document LAGA M10 'Quality Criteria and Application Recommendations for Compost'.

## 2. Foreign Matter

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.

Foreign matter content as a percentage of oven-dried mass	≤1.5
Foreign matter, maximum dimensions, in mm	25

## 3. Trace Elements

Maximum Trace Element Concentration Limits for Compost<sup>Note 2</sup>

Trace Elements	(mg/kg, dry mass)
Arsenic (As) <sup>Note 1</sup>	15
Cadmium (Cd)	1.5
Chromium (Cr)	100
Copper (Cu)	100
Mercury (Hg)	1
Molybdenum (Mo) <sup>Note 1</sup>	5
Nickel (Ni)	50
Lead (Pb)	150
Selenium (Se) <sup>Note 1</sup>	2
Zinc (Zn)	350

**Note 1:** Monitoring of these parameters required if waste from an industrial source.

**Note 2:** 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.

#### **4. Pathogens**

Pathogenic organism content must not exceed the following limits:

- the quantity of faecal coliforms must be < 1,000 Most Probable Number (MPN)/g of total solids calculated on a dry weight basis; and
- there can be no salmonellae present (< 3 MPN/4g total solids).

#### **5. Monitoring**

The licensee shall submit to the Agency for its agreement, prior to commencement of compost operations, details of methods of analyses, methods of sampling and sample numbers.

The analyses shall be carried out:

- (a) every six months for plants producing more than 500 and up to 1 000 tonnes of treated biowaste per year;
- (b) at intervals of at least every 1 000 tonnes of treated biowaste produced or every 3 months, whichever comes first, for plants producing more than 1 000 and up to 10 000 tonnes of treated biowaste per year;
- (c) every month for plants producing more than 10 000 tonnes of treated biowaste per year.

## **SCHEDULE F : Recording and Reporting to the Agency**

### **Recurring Reports**

<b>Annual Environment Report (AER)</b>	Annually	By 31 <sup>st</sup> March of each year.
<b>Record of incidents</b>	As they occur	Within five days of the incident.
<b>Specified Engineering Works reports</b>	As they arise	Prior to the works commencing.
<b>Monitoring of Surface Water Quality</b>	Quarterly	Ten days after the end of the quarter being reported on.
<b>Dust Monitoring</b>	Quarterly	Ten days after the end of the quarter being reported on.
<b>Noise Monitoring</b>	Quarterly	Ten days after the end of the quarter being reported on.
<b>Any other monitoring</b>	As they occur	Within ten days of obtaining results.

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

# **SCHEDULE G : Content of the Annual Environmental Report**

## **Annual Environmental Report Content**

Reporting Period.

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).

Summary report on emissions.

Summary of results and interpretations of environmental monitoring, including a location plan of all monitoring locations.

Resource and energy consumption summary.

Development / Infrastructural works in place and planned, to process waste quantities projected for the following year (including plant operating capacity, provision of adequate standby capacity and provision of contingency, backup and spares in the case of breakdown).

Schedule of Environmental Objectives and Targets for the forthcoming year.

Report on the progress towards achievement of the Environmental Objectives and Targets contained in previous year's report.

Full title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation.

Tank, drum, pipeline and bund testing and inspection report.

Reported Incidents and Complaints summaries.

Review of Nuisance Controls.

Reports on management and staffing structure of the facility, and a programme for public information.

Quantity of Compost Produced per annum.

Any other items specified by the Agency.

**Note 1** Content to be revised subject to the agreement of the Agency after cessation of waste acceptance at the facility.

**Sealed by the seal of the Agency on this the 21st day of July, 2005**

**PRESENT when the seal of the Agency  
was affixed hereto:**

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**Larry Stapleton, Director/Authorised Person**