



Headquarters  
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County Wexford  
Ireland

NON-HAZARDOUS WASTE  
TRANSFER STATION

PROPOSED DECISION

<b>Waste Licence Application Register Number:</b>	136-2
<b>Applicant:</b>	Greenstar Recycling (Munster) Limited
<b>Location of Facility:</b>	Sarsfieldcourt Industrial Estate, Sarsfieldcourt, Glanmire, County Cork.

# 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 continued operation of a waste transfer station and recycling facility at Sarsfieldcourt Industrial Estate, Sarsfieldcourt, Glanmire, County Cork.

Greenstar Recycling (Munster) Limited are licensed to accept non-hazardous waste (primarily household, commercial and industrial waste) up to a maximum of 99,017 tonnes per annum. The wastes are processed within a transfer station building with the recyclable materials (e.g. glass, metal, cardboard, wood, plastic, paper) removed and the residual waste sent to landfill. Composting of up to 5,000 tonnes per annum of source separated biodegradable waste is also authorised with the prior agreement of the Agency.

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 Greenstar Recycling (Munster) Ltd. 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 (the Agency) is satisfied that the waste activity, or activities, licensed hereunder will comply with the requirements of Section 40(4) of the Waste Management Act, 1996.

In reaching this decision the Agency has considered the application and supporting documentation received from the applicant and the report of its inspector.

## *Part I: Activities Licensed*

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Agency proposes, under Section 46(2) of the said Act to grant this Waste Licence to Greenstar Recycling (Munster) Limited to carry on the waste activity/activities listed below at Sarsfieldcourt Industrial Estate, Sarsfieldcourt, Glanmire, County Cork subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

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

<b>Class 11.</b>	<b>Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.</b>  This activity is limited to the bulking and transfer of waste.
<b>Class 12.</b>	<b>Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.</b>  This activity if limited to baling of waste prior to transport off-site for disposal.
<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>  This activity is limited to storage prior to bulking and transfer of waste.

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

<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>  This activity is limited to the segregation of cardboard, paper, wood and plastic prior to recovery off-site. This activity is also limited to the composting of 5,000 tonnes per annum of source separated biodegradable waste with the prior agreement of the Agency.
<b>Class 3.</b>	<b>Recycling or reclamation of metals and metal compounds:</b>  This activity is limited to the segregation of steel and other metals prior to recovery off-site.
<b>Class 4.</b>	<b>Recycling or reclamation of other inorganic materials:</b>  This activity is limited to the segregation of glass and other inert wastes prior to recovery off-site.
<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>  This activity is limited to the storage of waste prior to recovery off-site.



# INTERPRETATION

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Act, (the Act), 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>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>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>	All wastes which arise from construction, renovation and demolition activities.
<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 10.00 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</b>	A harmonised, non-exhaustive list of wastes drawn up by the European

<b>Catalogue (EWC)</b>	Commission and published as Commission Decision 94/3/EC and any subsequent amendment published in the Official Journal of the European Community.
<b>Green waste</b>	Waste wood (excluding 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.
<b>Hours of Waste Acceptance</b>	The hours during which the facility is authorised to accept waste.
<b>Incident</b>	The following shall constitute an incident for the purposes of this licence:- a) an emergency; b) any emission which does not comply with the requirements of this licence; c) any exceedance of the daily duty capacity of the waste handling equipment; d) any trigger level specified in this licence which is attained or exceeded; and e) any indication that environmental pollution has, or may have, taken place.
<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 Act.
<b>Licensee</b>	Greenstar Recycling (Munster) Limited.
<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>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</b>	Those waste types, such as cardboard, batteries, gas cylinders, etc, which may

<b>Materials</b>	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>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>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>Waste water</b>	Contaminated waster that has been used for washing, flushing or in a manufacturing process.
<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>EPA Working Day</b>	Refers to the following hours; 9.00 a.m. to 5.30 p.m. Monday to Friday inclusive.



## ***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. 3.1 Rev. A entitled “ Site Notice Location” 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 Act 1996 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. The maximum tonnage to be accepted at the facility shall not exceed 99,017 tonnes per annum.
- 1.5. Waste shall only be accepted at the facility, from customers who are holders of a waste permit, unless exempted, under the Waste Management (Collection Permit) Regulations 2001 or from other licensed/permitted facilities.
- 1.6. Only those waste categories and quantities listed in *Schedule A: Waste Acceptance* of this licence, shall be accepted at the facility.
- 1.7. At least 50% of waste handled at the facility per annum shall be recovered either on site or at another authorised facility.
- 1.8. No hazardous wastes or liquid wastes shall be accepted at the facility.
- 1.9. Waste Acceptance Hours and Hours of Operation
  - 1.9.1 Waste shall only be accepted at the facility between the hours of 8.00am to 6.00pm Monday to Friday inclusive and 8.00am to 2.00pm on Saturdays.
  - 1.9.2 The facility shall only be operated during the hours of 7.00am to 8.00pm Monday to Friday inclusive and 7.00am to 3.00pm on Saturdays.
  - 1.9.3 The facility shall not be operated and waste shall not be accepted at the facility on Sundays or on Bank Holidays.
- 1.10. Where the Agency considers that a non-compliance with any condition of this licence has occurred, it may serve a notice on the licensee specifying.
  - 1.10.1. That only those wastes as specified, if any, in the notice are to be accepted at the facility after the date set down in the notice.
  - 1.10.2. That the licensee shall undertake the works stipulated in the notice, and/or otherwise comply with the requirements of the notice as set down therein, within the time-scale contained in the notice.
  - 1.10.3. That the licensee shall carry out any other requirement specified in the notice.

When the notice has been complied with, the licensee shall provide written confirmation that the requirements of the notice have been carried out. No waste, other than that which is stipulated in the notice, shall be accepted at the facility until written permission is received from the Agency.

- 1.11. 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.
- 1.12. This licence is being granted in substitution for the waste licence granted on 26/07/01 and bearing Waste Licence Register No: 136-1. The previous waste licence (Register No: 136-1) is superseded by this licence.

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

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

### **2.1 Facility Management**

- 2.1.1 The licensee shall employ a suitably qualified and experienced facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation.
- 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 In the event of changes to the details already on file, the licensee shall submit written updated details of the management structure of the facility to the Agency for agreement. 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 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 objectives should be specific and the targets measurable. The Schedule shall address a five-year period as a minimum. The Schedule shall include a time-scale for achieving the objectives and targets and shall comply with any other written guidance issued by the Agency.

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.

2.4 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.

**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. 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) records and results of all tests carried out (including failures);
- d) drawings and sections showing the location of all samples and tests carried out;
- e) daily record sheets/diary;
- f) name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;
- g) name(s) of individual(s) responsible for supervision of works and for quality assurance validation of works;
- h) records of any problems and the remedial works carried out to resolve those problems; and
- i) 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 gates shall be installed and maintained at the entrances to the facility and a security wall shall be provided around the perimeter of the facility to a minimum height of 2.5m. The base of the fencing shall be set in the ground. The licensee shall provide and maintain a CCTV monitoring system at the facility and at the entrance to the industrial estate.

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 licensee shall provide, and maintain an impermeable concrete surface at the facility entrance area, parking area, all areas where vehicle movement takes place and the waste handling and storage areas. All waste handling and storage 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. Drainage from these areas shall be directed to the waste water drainage system.
- 3.8 Weighbridge and Wheel Cleaning
- 3.8.1 The licensee shall provide and maintain 2 No. weighbridges, a wheelwash and vehicle cleaning facilities 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) 50% 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 three 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 reconfirmed by the licensee and shall be reported to the Agency within three years of the date of grant of this licence or in the case of any new bund following its installation and prior to its use as a storage area.

This confirmation shall be repeated at least once every three years thereafter and reported to the Agency on each occasion.

### 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 Waste water system

- 3.12.1 The licensee shall maintain a collection system and underground storage tank for all waste water generated at the facility. The storage tank shall be fitted with a high level liquid alarm

### 3.13 Drainage system, pipeline testing

- 3.13.1 Within three months from the date of grant of this licence all waste water gullies, drainage grids and manhole covers shall be painted with red squares whilst all surface water discharge gullies, drainage grids and manhole covers shall be painted with blue triangles. These colour codes shall be maintained so as to be visible at all times during facility operation.

- 3.13.2 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. A written record shall be kept of the inspections, desludging, cleaning, disposal of associated waste products, maintenance and performance of the interceptors, bunds and drains.

- 3.13.3 The integrity and water tightness of all underground pipes and tanks and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee and shall be reported to the Agency following their installation and prior to their 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. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

### 3.14 Compost facility

- 3.14.1 Appropriate infrastructure for the composting of waste shall be established and maintained at the facility prior to any biodegradable waste being composted.

- 3.14.2 Notwithstanding the requirements of Condition 5.4 and prior to commencement of composting, the licensee shall submit to the Agency details of the composting system proposed. This shall include details of the following:

- proposed location and numbers of in-vessel composters,
- proposed size and location of the aerated curing pads,
- proposed biofilters on the in-vessel composters and aerated curing pads to control and mitigate odours,

- location of the drainage collection sumps and connection to the waste water drainage system,
- proposed location for feedstock preparation, trommelling and storage of composted waste.

3.14.3 All leachate generated from this activity shall be diverted to the waste water collection system.

### 3.15 Monitoring Infrastructure

#### 3.15.1 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.

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

## **CONDITION 4 DECOMMISSIONING AND AFTERCARE**

4.1. An updated proposal for a Decommissioning and Aftercare Plan for the facility shall be submitted to the Agency within twelve months of the date of grant of this licence. The licensee shall update these schemes when required by the Agency.

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

## **CONDITION 5 FACILITY OPERATIONS**

5.1 All waste processing other than the in-vessel composting shall be carried out inside the waste transfer building.

### 5.2 Waste Acceptance and Characterisation Procedures

5.2.1 The licensee shall maintain detailed written procedures for the acceptance and handling of all wastes.

5.2.2 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 shall be inspected upon tipping within this building. Only after such inspections shall the waste be processed for disposal or recovery.

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

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

5.2.5 Waste shall only be accepted at the facility from known customers or new customers subject to initial waste profiling and waste characterisation off-site. The written records of this off-site waste profiling and characterisation shall be retained by the licensee for all active customers and for a two year period following termination of licensee/customer agreements. There shall be no casual public access to the facility.

### 5.3 Operational Controls

5.3.1 The floor of the waste transfer building shall be washed down and cleared of all waste at the end of the working day. The floor of the storage bays for recovered wastes shall be washed down and cleaned on each occasion such bays are emptied.

5.3.2 Scavenging shall not be permitted at the facility.

5.3.3 Gates shall be locked shut when the facility is unsupervised.

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

5.3.5 Fuels shall only be stored at appropriately bunded locations on the facility.

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

5.3.7 No smoking shall be allowed on the facility.

### 5.4 Compost

5.4.1 All composting shall be carried out in line with the treatment regimes outlined in Schedule E: *Process Management* of this licence.

5.4.2 In order not to be considered a waste, compost produced by the facility shall comply with the quality standards established in *Schedule F: Standards for Compost Quality* of this licence. Analysis of the compost shall be in accordance with the requirements of that Schedule. Compost not complying with Class 1 or Class 2 of these Quality Standards, and Stabilised Biowaste shall be considered a waste and shall be disposed/recovered to an authorised outlet as agreed by the Agency.

5.4.3 All waste water from composting operations not recirculated in the proposed system shall drain to the underground waste water storage tank.

5.4.4 The following shall only be undertaken within the transfer building:

- Storage of biodegradable waste prior to composting.
- Feedstock preparation.
- Trommelling of composted waste.
- Aerated curing of compost.
- Storage of final compost end-product.

5.4.5 No more than 10 tonnes of biodegradable waste for composting shall be stored at the facility at any one time. This waste shall not be stored for longer than 24 hours at the facility prior to being placed in the in-vessel composter.

5.4.6 No more than 1,200 tonnes of waste and compost shall be stored at the facility at any one time.



## 5.5 Off-site Disposal and Recovery

- 5.5.1 Waste sent off-site for recovery or disposal shall only be conveyed by a waste contractor agreed by the Agency.
- 5.5.2 All waste transferred from the facility shall only be transferred to an appropriate facility agreed by the Agency.
- 5.5.3 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.

## 5.6 Waste Water Management

- 5.6.1 Unless treated on the facility, waste water stored in the on-site storage tanks shall be tankered off-site in fully enclosed road tankers to a Wastewater Treatment Plant to be agreed in advance by the Agency and disposed of there.

## 5.7 Maintenance

- 5.7.1 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.
- 5.7.2 All lagoon structures on the facility shall be inspected and certified fit for purpose every three years by an independent and appropriately qualified chartered engineer.
- 5.7.3 The licensee shall maintain and clearly label and name all sampling and monitoring locations.
- 5.7.4 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.
- 5.7.5 The licensee shall maintain all waste processing equipment in accordance with the manufacturers instructions.

## 5.8 Landscaping

- 5.8.1 Within twelve months of the date of grant of this licence, the licensee shall submit to the Agency for agreement an update of the implementation of the landscape programme submitted on 11/07/03 to the Agency.

***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 samples 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. The trigger levels at the final surface water discharge point from the facility are:-

- a) BOD 25mg/l.
- b) Suspended Solids 35mg/l.

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

6.5. There shall be no direct emissions to groundwater.

6.6. PM<sub>10</sub> Emissions

6.6.1. The trigger level for PM<sub>10</sub> from the facility measured at any location on the boundary of the facility is:-

- (a) PM<sub>10</sub> greater than 50µg/m<sup>3</sup> for a daily sample.

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

6.8. Disposal of Waste Water

6.8.1. No waste water shall be discharged to surface water.

6.8.2. Non-trade effluent wastewater (e.g. firewater, accidental spillage) which occurs on-site shall not be directed to the waste water storage tank unless otherwise agreed by the Agency.

**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 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.

- 7.3.2 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 All waste for disposal stored overnight at the facility, shall be stored in suitably covered and enclosed containers within the Waste Transfer Building, and shall be removed from the facility within forty eight hours of its arrival at the facility and at Bank Holiday weekends within seventy two hours of its arrival at the facility.
- 7.4.2 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.
- 7.4.3 The licensee shall provide and maintain 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:-
- 7.4.3.1 Dust curtains 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.
- 7.4.3.2 Installation and maintenance of integrity and negative pressure throughout the building to ensure no significant escape of odours or dust.
- 7.4.3.3 Installation of an odour management system.
- 7.4.3.4 Provision of 100% duty capacity and 50% stand by capacity, back ups and spares must be provided for the air handling, ventilation and abatement plant.
- 7.5 Prior to exiting the facility, all waste vehicles shall use the wheelwash.

**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. 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.
- 8.8. Nuisance Monitoring
- 8.8.1. 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.
- 8.9 Odour Monitoring
- 8.9.1 On commencement of composting operations at the facility, the licensee shall implement an odour control programme. As part of this programme, the licensee shall carry out a monthly review of odour measures in place at the facility. This shall include:
- (i) details of any monitoring carried out (including the validation of complaints and identification of the source of the cause of the complaint and actions taken, where relevant);
  - (ii) consideration of any odour complaints received (including details and nature of the complaints, times and weather conditions); and,
  - (iii) recommendations to deal with odour problems and implementation of these recommendations.
- The licensee shall maintain these reports on site and forward them to the Agency on request.

**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 maintain a written Emergency Response Procedure (ERP) at the facility. 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 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.

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.

**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 written 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;
- 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; and
- j) where applicable a consignment note number (including transfrontier shipment notification and movement/tracking form numbers, as appropriate).

### 10.3 Written Records

The following written 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 written 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 written record shall be kept of each consignment of waste water removed from the facility. The record shall include the following:-

- a) the name of the carrier;
- b) the date and time of removal of waste water from the facility;
- c) the volume of waste water, in cubic metres, removed from the facility on each occasion;
- d) the name and address of the Waste Water Treatment Plant to which the waste water was transported; and
- e) any incidents or spillages of waste water during its removal or transportation.

### 10.6 A written 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.

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

## **CONDITION 11 REPORTS AND NOTIFICATIONS**

11.1 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:-

- a) be sent to the Agency's Regional Inspectorate in Cork;
- b) comprise one original and three 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 G: Recording and Reporting* 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.

11.2 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 water, notify the Southwestern Regional Fisheries Board 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.

11.3 Waste Recovery Reports

Within twelve months of the date of grant of this licence, an updated report examining waste recovery options shall be submitted to the Agency for its agreement. This report shall address methods to contribute 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;
- c) the recovery of non hazardous inorganic waste;
- d) the recovery of commercial waste, including cardboard;

#### 11.4 Vermin and Flies

11.4.1. The licensee shall maintain a record of the control and 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.

#### 11.5 Monitoring Locations

11.5.1. Within six 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.

#### 11.6 Annual Environmental Report

11.6.1. The licensee shall submit to the Agency for its agreement within one month of the end of each calendar year an Annual Environmental Report (AER).

11.6.2. The AER shall include as a minimum the information specified in *Schedule H: 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 €15,091.68 or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Act, 1996. The licensee shall in 2005 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Public Sector Average Earnings Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 2004, the licensee shall pay a pro rata amount from the date of this licence to 31<sup>st</sup> December. This amount shall be paid to the Agency within one month of the date of grant of this licence.



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 Financial Provision for Closure, Restoration and Aftercare

12.2.1 The licensee shall arrange for the completion of a comprehensive and fully costed Environmental Liabilities Risk Assessment for the facility which will address liabilities arising from the carrying on of the activities to which this licence relates. A report on this assessment shall be submitted to the Agency for its agreement within six months of date of grant of this licence.

12.2.2 Within nine months of the date of grant of this licence, the licensee shall make a Proposal for Financial Provision to the Agency for its agreement to cover any liabilities incurred by the licensee in carrying on the activities to which this licence relates. Such provision shall be maintained by the licensee unless otherwise agreed by the Agency.

12.2.3 The amount of financial provision, held under Condition 12.2.2 shall be reviewed and revised as necessary, but at least annually. Any proposal for such a revision shall be submitted to the Agency for its agreement.

12.2.4 The licensee shall within two weeks of purchase, renewal or revision of the financial provision required under Condition 12.2.2, forward to the Agency written proof of such indemnity.

12.2.5 Unless otherwise agreed any revision to the fund shall be computed using the following formula:  $Cost = (ECOST \times WPI) + CiCC$

Where: Cost = Revised restoration and aftercare cost.

ECOST = Existing restoration and aftercare cost.

WPI = Appropriate Wholesale Price Index [Capital Goods, Building & Construction (i.e. Materials & Wages) Index], as published by the Central Statistics Office, for the year since last closure calculation/revision.

CiCC = Change in compliance costs as a result of change in site conditions, changes in law, regulations, regulatory authority charges, or other significant changes.

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

## SCHEDULE A : Waste Acceptance

### A.1 Waste Acceptance

**Table A.1 Waste Categories and Quantities**

WASTE TYPE	MAXIMUM (TONNES PER ANNUM) <sup>Note 1</sup>
Household	42,129
Commercial & Industrial	47,130
Construction & Demolition	4,758
Source separated biodegradable waste for composting	5,000
<b>TOTAL</b>	<b>99,017</b>

**Note 1:** The maximum tonnage of each waste type accepted, except the source separated biodegradable waste for composting, may be altered with the prior agreement of the Agency as long as the total maximum tonnage is not exceeded.

## SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Installation of baling infrastructure.
Installation of waste handling, processing, recycling/recovery infrastructure and installation of increased waste processing capacity.
Installation of composting 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 *Table D.1 Monitoring Locations*).

Day dB(A) L <sub>Aeq</sub> (30 minutes)	Night dB(A) L <sub>Aeq</sub> (30 minutes)
55	45

**C.2 Dust Deposition Limits:** (Measured at the monitoring points indicated in *Table D.1 Monitoring Locations*).

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.

**C.3 Surface Water Discharge Limits:** Measured at the final surface water discharge point from the facility.

Parameter	Emission Limit Value
Mineral oils	5mg/l

#### C.4 Emission Limit Values for Outlet of Biofilters

Emission Point Reference No.: To be agreed prior to commencement of composting

Parameter	Emission Limit Value
Ammonia	50 ppm v/v
Hydrogen Sulphide	5 ppm v/v
Mercaptans	5 ppm v/v

## SCHEDULE D : Monitoring

Monitoring to be carried out as specified below.

### D.1 Monitoring Locations

Monitoring locations shall be those as set out in Table D.1.1 and Fig. J.1 entitled 'Monitoring Locations' of the application.

**Table D.1.1 Monitoring Locations**

NOISE	SURFACE WATER	GROUND WATER	WASTE WATER	DUST	BIOAEROSOL & PM <sub>10</sub>
STATION S	STATIONS	STATION S	STATIONS	STATION S	STATIONS
N1, N2, N5, N6, N7.	Final surface water discharge from facility	W1 – W2	Waste water storage tank	D1, D2	To be agreed prior to commencement of composting
Nearest noise sensitive location	SW4 – SW5			D3, D4	

### D.2 Dust

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

Parameter (mg/m <sup>2</sup> /day)	Monitoring Frequency	Analysis Method/Technique
Dust	Three times a year <sup>Note 2</sup>	Standard Method <sup>Note 1</sup>

**Note 1:** Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). A modification (not included in the standard) which 2 methoxy ethanol may be employed to eliminate interference due to algae growth in the gauge.

**Note 2:** Twice during the period May to September.

### D.3 Noise

**Table D.3.1 Noise Monitoring Frequency and Technique**

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

**Note 1:** "International Standards Organisation. ISO1996. Acoustics - description and Measurement of Environmental noise. Parts 1, 2 and 3."

### D.4 Waste Water Emissions

**Table D.4.1 Waste Water Monitoring Frequency and Techniques**

Parameter	Monitoring Frequency	Analysis Method/Technique
pH	Bi-annually	Electrometry
Biological Oxygen Demand	Bi-annually	Standard Methods <sup>Note 1</sup>
Chemical Oxygen Demand	Bi-annually	Standard Methods <sup>Note 1</sup>
Suspended Solids	Bi-annually	Standard Methods <sup>Note 1</sup>
Temperature	Bi-annually	Temperature probe
Mineral oils	Bi-annually	Standard Methods <sup>Note 1</sup>
Ammonia as N	Bi-annually	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.5 Surface Water and Groundwater monitoring

**Table D.5.1 Surface Water & Groundwater Monitoring Parameters and Frequencies**

Parameter <sup>Note 1</sup>	Surface water	Groundwater
	Monitoring Frequency	Monitoring Frequency
Visual Inspection (Odour/oil presence) <sup>Note 2</sup>	Weekly	Annually
Groundwater level	Not applicable	Annually
TOC <sup>Note 2</sup>	Twice weekly <sup>Note 3</sup>	Annually
pH	Quarterly	Annually
Temperature	Quarterly	Annually
Electrical Conductivity	Quarterly	Annually
COD	Quarterly	Not applicable
BOD	Quarterly	Not applicable
Ammonia (as N)	Quarterly	Annually
Dissolved Oxygen	Quarterly	Not applicable
Total Suspended Solids	Quarterly	Annually
Mineral Oils	Quarterly	Annually
Fats, Oils & Grease	Quarterly	Not applicable

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

**Note 2:** Applicable to final surface water discharge from the facility only.

**Note 3:** Frequency may be reduced to quarterly with the prior agreement of the Agency.

## D.6: Monitoring of Composting Processes

**Table D.6.1 Monitoring - Parameters / Frequency**

Parameter	Monitoring Frequency	Monitoring equipment/method
<b>Enclosed Composting /vessels</b>		
Temperature vs. time	Continuous	Temperature probe/recorder
<b>Maturation (curing)</b>		
Temperature	Weekly	Temperature probe
Moisture	Weekly	Subjective by operator

## D.7 Dust, PM<sub>10</sub> and Bioaerosol

**Table D.7.1 Dust and Bioaerosol Monitoring Frequency and Technique**

Parameter	Monitoring Frequency	Analysis Method/Technique
PM <sub>10</sub> ( µg/m <sup>3</sup> )	Annually	See <sup>Note 1</sup>
<i>Aspergillus fumigatus</i>	Annually	Grab sample <sup>Note 2</sup>
Mesophilic bacteria	Annually	Grab sample <sup>Note 2</sup>
Dust deposition (mg/m <sup>2</sup> /day)	Three times a year <sup>Note 3</sup>	Standard Method <sup>Note 4</sup>

**Note 1:** As described in prEN12341 "Air Quality - field test procedure to demonstrate reference equivalence of sampling methods for PM<sub>10</sub> fraction of particulate matter" or an alternative agreed in writing with the Agency.

**Note 2:** Enumeration of colonies to be carried out as described in 'Standardised Protocol for the Sampling and Enumeration of Airborne Micro-organisms at composting Facilities' the UK Composting Association 1999.

**Note 3:** Twice during the period May to September, or as otherwise specified in writing by the Agency.

**Note 4:** Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). A modification (not included in the standard) which 2 methoxy ethanol may be employed to eliminate interference due to algae growth in the gauge.

## D.8 Biofilter Monitoring

**Table D.8.1 Biofilter Monitoring Frequency and Techniques**

Parameter	Monitoring Frequency	Analysis Method/Technique <sup>Note 1</sup>
<b>Bed Media</b>		
Odour assessment <sup>Note 2</sup>	Daily	Subjective Inspection
Condition and depth of biofilter <sup>Note 3</sup>	Daily	Visual Inspection
Moisture content	Bi-annually	Standard laboratory method
pH	Bi-annually	pH probe
Ammonia	Bi-annually	Standard laboratory method
Total viable counts	Bi-annually	Standard laboratory method
<b>Outlet Gas</b>		
Ammonia	Bi-annually	Colourimetric Indicator Tubes
Hydrogen sulphide	Bi-annually	Colourimetric Indicator Tubes
Mercaptans	Bi-annually	Colourimetric Indicator Tubes

**Note 1:** 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.

## SCHEDULE E : Process Management

**Table E.1 Composting.** During the composting process the entire quantity of biowaste being composted shall be exposed to the following temperature:

Temperature	Treatment time
At least 60°C	1 week

**Table E.2 Process validation.** The composting process shall be tested using the following indicator organism <sup>Note 1</sup>.

Indicator Organism	Frequency
<i>Salmonella spp.</i>	Annually <sup>Note 2</sup>

**Note 1:** Unless otherwise agreed by the Agency.

**Note 2:** This test shall be repeated if major changes to either the composition of the incoming biowaste or the treatment process are made.

## SCHEDULE F : Standards for Compost Quality

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)

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:

1. Respiration activity after four days AT<sub>4</sub> is ≤10mg/O<sub>2</sub>/g dry matter **or** Dynamic Respiration Index is ≤1,000mgO<sub>2</sub>/kg VS/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.
4. If no other determination of maturity is made, the compost must be cured for a six month period. In addition, offensive odours from the compost shall be minimal for the compost to be deemed mature.
5. Or other maturity tests as may be agreed by the Agency.

### 2. Trace Elements (Compost) <sup>Note 1</sup>

#### Maximum Trace Element Concentration Limits <sup>Note 2</sup>

Parameter (mg/kg, dry mass)	Compost Quality Standards		Stabilised Biowaste
	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 (PAHs)	-	-	3
Impurities >2mm <sup>Note 3</sup>	<0.5%	<0.5%	<3%
Gravel and Stones >5mm <sup>Note 4</sup>	<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:** 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 3:** Normalised to 30% organic matter content.

**Note 4:** 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 sp.</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;

### 4. Monitoring (Compost)

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

The analyses shall be carried out:

At intervals of at least every 1,000 tonnes of treated biowaste or every three months, whichever comes first, for plants producing more than 1,000 and up to 10,000 tonnes of treated biowaste per year.

## SCHEDULE G : Recording and Reporting to the Agency

Report	Reporting Frequency <sup>Note1</sup>	Report Submission Date
<b>Environmental Management System Updates</b>	Annually	One month after the end of the year reported on.
<b>Annual Environment Report (AER)</b>	Annually	Thirteen months from the date of grant of licence and one month after the end of each calendar year thereafter.
<b>Record of incidents</b>	As they occur	Within five days of the incident.
<b>Bund, tank and container integrity assessment</b>	Every three years	Six months from the date of grant of licence and one month after end of the three year period being reported on.
<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 end of the quarter being reported on.
<b>Monitoring of Groundwater Quality</b>	Annually	One month after end of the year being reported on.
<b>Monitoring of Waste water</b>	Bi-annually	Ten days after end of the quarter being reported on.
<b>Dust Monitoring</b>	Three times a year	Ten days after the period being reported on.
<b>Noise Monitoring</b>	Annually	One month after end of the year being reported on.
<b>Air monitoring (including biofilters)/bioaerosol/PM<sub>10</sub> monitoring)</b>	Annually on commencement of composting operations.	One month after end of the year being reported on.
<b>Compost quality monitoring</b>	Every 1,000 tonnes of treated biowaste or every three months, whichever comes first.	Ten days after end of 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 H : Content of the Annual Environmental Report**

### **Annual Environmental Report Content** <sup>Note 1</sup>

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 financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.

Volume of waste water produced and volume of waste water transported off-site.

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.

**Signed on behalf of the said Agency**  
on the 5<sup>th</sup> day of January 2004

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**Patrick J. Nolan, Authorised Person**