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P.O. Box 3000
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County Wexford
Ireland

### **WASTE LICENCE**

# PROPOSED DECISION

**Waste Licence** 

**Application** 

**Register Number:** 200-1

**Applicant:** South Tipperary County Council

**Location of Facility:** Waller's Lot, Cashel, County Tipperary

#### 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 integrated waste management facility located at Waller's Lot, Cashel, County Tipperary. The quantity of waste to be accepted at the facility is limited to 21,100 tonnes per annum consisting of household waste, commercial waste and household hazardous waste.

The facility will consist of a waste transfer building, a composting area and a civic waste facility. The waste transfer building will comprise of a municipal solid waste area, dry recyclables area and a green/organic waste acceptance area. The municipal solid waste and dry recyclables will be tipped inside the transfer building and bulked up prior to transfer off-site for disposal and recovery respectively. A baler may be used for baling of paper/cardboard. The green/organic waste accepted at the transfer building will be used at the proposed composting area. Receptacles will be provided at the civic waste facility for collection/storage of various recyclable wastes such as bottles, paper, cardboard, metals, which will be sent for recycling/recovery off site. The facility is also licensed to accept a limited quantity of household hazardous waste (e.g. waste oil, white goods, fluorescent tubes and batteries) at the civic waste facility.

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 South Tipperary County Council 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 and the report of its inspector.

#### 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.

**Adequate lighting** 20 lux measured at ground level.

**Aerosol** A suspension of solid or liquid particles in a gaseous medium.

**Agreement** Agreement in writing.

**Annually** At approximately twelve monthly intervals.

**Attachment** Any reference to Attachments in this licence refers to attachments submitted

as part of the waste licence application.

**Application** The application by the licensee for this waste licence.

Appropriate facility A waste management facility, duly authorised under relevant law and

technically suitable.

**BAT** Best Available Techniques.

**Bi-annually** All or part of a period of six consecutive months.

Biodegradable

waste

Any waste that is capable of undergoing anaerobic or aerobic decomposition,

such as food, garden waste, sewage sludge, paper and paperboard.

CEN Comité Européen De Normalisation – European Committee for

Standardisation.

**Condition** A condition of this licence.

Consignment Note 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).

Construction and Demolition Waste All wastes which arise from construction, renovation and demolition

activities.

**Containment boom** A boom which can contain spillages and prevent them from entering drains

or watercourses.

**Daytime** 8.00 a.m. to 10.00 p.m.

**Documentation** Any report, record, result, data, drawing, proposal, interpretation or other

document in written or electronic form which is required by this licence.

Any reference to a drawing or drawing number means a drawing or drawing **Drawing** 

number contained in the application, unless otherwise specified in this

licence.

**Emergency** Those occurrences defined in Condition 10.4.

**Emission Limits** Those limits, including concentration limits and deposition levels established

in Schedule C: Emission Limits, of this licence.

**European Waste** 

A harmonised, non-exhaustive list of wastes drawn up by the European Catalogue (EWC) Commission and published as Commission Decision 2000/532/EC and any

subsequent amendment published in the Official Journal of the European

Community.

Green waste Waste wood (excluding timber), plant matter such as grass cuttings, and

other vegetation.

**Hours of Operation** The hours during which the facility is authorised to be operational.

**Hours of Waste** Acceptance

The hours during which the facility is authorised to accept waste. Different activities within the facility, such as the civic waste facility, may have

different hours of waste acceptance.

Incident The following shall constitute an incident for the purposes of this licence:

an emergency;

b) any emission which does not comply with the requirements of this licence;

c) any exceedence of the daily duty capacity of the waste handling equipment;

d) any trigger level specified in this licence which is attained or exceeded; and

any indication that environmental pollution has, or may have, taken place.

**Industrial Waste** As defined in Section 5(1) of the Act.

Waste as defined in S.I. No. 395 of 2004 Waste Management (Licensing) **Inert waste** 

Regulations, 2004.

**Landfill Directive** Council Directive 1999/31/EC.

Licence A Waste Licence issued in accordance with the Acts.

Licensee South Tipperary County Council.

**Liquid Waste** Any waste in liquid form and containing less than 2% dry matter. Any waste

tankered to the facility.

Maintain Keep in a fit state, including such regular inspection, servicing, calibration

and repair as may be necessary to adequately perform its function.

Self-propelled machinery used for the emplacement of wastes or for the **Mobile Plant** 

construction of specified engineering works.

Monthly A minimum of 12 times per year, at approximately monthly intervals.

Municipal waste As defined in Section 5(1) of the Act. **Night-time** 10.00 p.m. to 8.00 a.m.

**Noise Sensitive** Any dwelling house, hotel or hostel, health building, educational **Location (NSL)** establishment, place of worship or entertainment, or any other facility or area

establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise

at nuisance levels.

Oil Separator Device installed according to the draft European Standard prEN 858

(Installations for the separation of light liquids, e.g. oil and petrol).

Recyclable Materials Those waste types, such as cardboard, batteries, gas cylinders, etc, which

may be recycled.

**Quarterly** At approximately three monthly intervals.

Sanitary Authority South Tipperary County Council.

Sample(s) Unless the context of this licence indicates to the contrary, samples shall

include measurements by electronic instruments.

**SOP** Standard Operating Procedure.

**Specified Emissions** Those emissions listed in *Schedule C: Emission Limits* of this licence.

Specified Engineering Works

Those engineering works listed in Schedule B: Specified Engineering Works

of this licence.

**TOC** Total Organic Carbon.

Transfrontier Shipment Notification 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).

**Trigger Level** A parameter value specified in the licence, the achievement or exceedance of

which requires certain actions to be taken by the licensee.

Wastewater Contaminated water including water that has been used, for washing, and/or

flushing (including foul water).

Weekly 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.

White Goods Refrigerators, cookers, ovens and other similar appliances.

**EPA Working Day** 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) proposes, under Section 40(1) of the said Acts to grant this Waste Licence to South Tipperary County Council to carry on the waste activities listed below at Wallers Lot, Cashel, County Tipperary 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

Class 12.	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
Class 13.	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

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

Class 2.	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
Class 3.	Recycling or reclamation of metals and metal compounds.
Class 4.	Recycling or reclamation of other inorganic materials.
Class 11.	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.
Class 13.	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

#### PART II CONDITIONS

#### CONDITION 1 SCOPE OF THE LICENCE

- 1.1 Waste activities at the facility shall be restricted to those outlined in the licence application and listed and described in Part I: Activities Licensed and authorised by this licence subject to the conditions of this licence.
- 1.2 For the purposes of this licence, the facility is the area of land outlined in red on Drawing No. 2003-024-03-B.2.1 Rev. A *Site Location Map & Site Boundary* of the application. Any reference in this licence to "facility" shall mean the area 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 Only those waste categories and quantities listed in *Schedule A: Waste Acceptance* of this licence, shall be accepted at the facility.
- 1.5 No hazardous wastes or liquid wastes (excluding household hazardous waste listed in *Schedule A: Waste Acceptance* of this licence 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 8:30 to 19:30 Monday to Saturday inclusive.
    - 1.6.1.1. Waste may be accepted at the civic amenity facility and the bring bank between the hours of 10:00 to 14:00 on Sundays.
  - 1.6.2. The facility shall be operated only during the hours of 8:00 to 20:00 Monday to Saturdays inclusive.
    - 1.6.2.1. The civic amenity facility and the bring bank may be operated on Sundays between the hours of 9:30 to 14:30.
  - 1.6.3. Waste shall not be accepted at the facility on Bank Holidays.
- 1.7 Before commencing waste activities the licensee must satisfy the Agency that it has obtained any consent deemed necessary by the Department of Agriculture and Food for the treatment of animal by-products in composting facilities.
- 1.8 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.

**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 The Civic Waste Facility shall be supervised by an appropriately qualified and competent person at all times during the periods of acceptance of waste and operation of the facility.
- 2.1.3 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.
- 2.1.4 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;
  - 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 twelve months 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 as part of the AER.
  - 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

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 waste 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 as may be appropriate 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;
    - 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 Prior to commencement of waste activities, security fencing, gates and closed circuit television (CCTV) shall be installed and maintained around the facility boundary. 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
  - a repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

#### 3.5 Facility Roads and Site Surfaces

- 3.5.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.
- 3.5.2 Prior to commencement of waste activities, the licensee shall provide, and maintain an impermeable concrete surface in all areas of the facility, the surfaces shall be concreted and constructed to British Standard 8110 or an alternative as agreed by the Agency.

#### 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(s) 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 The waste quarantine area(s) shall be secured, bunded and surfaced to deal with spillages with all drainage diverted for collection and safe disposal.

3.7.4 Drainage from the waste inspection area shall be directed to wastewater drainage network.

#### 3.8 Weighbridge

The licensee shall provide and maintain a weighbridge 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
    - Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.
  - 3.9.2 Prior to the commencement of waste activities, the licensee shall provide a report for the agreement of the Agency detailing the duty and standby capacity in tonnes per day, of all waste handling and processing equipment to be used at the facility. These capacities shall be based on the licensed waste intake, as per *Schedule A: 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 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 Drainage system, pipeline testing

3.11.1 Prior to commencement of waste acceptance at the facility, the surface water run-off and wastewater drainage network shall be installed and maintained as shown on Drawing No. 2003-024-03-009 Rev. C Overall Drainage Layout and as specified on Drawing No. 2003-024-03-010 Rev. C Drainage Layout Sheet 1 of 4, Drawing No. 2003-024-03-011 Rev. C Drainage Layout Sheet 2 of 4, Drawing No. 2003-024-03-012 Rev. B Drainage Layout Sheet 3 of 4 and Drawing No. 2003-024-03-013 Rev. C Drainage Layout Sheet 4 of 4 of the Article 14 reply received 3/08/04, unless otherwise indicated or agreed by the Agency.

3.11.2 The surface water run-off from the weighbridge shall be discharged to the wastewater drainage network.

#### 3.11.3 Silt Traps and Oil Interceptors

- i) The licensee shall install and maintain silt traps and oil interceptors at the facility. For discharges to surface water, the interceptors shall be a Class I full retention interceptor. For discharges to sewer, the interceptors shall be Class II full retention interceptor. The silt traps and interceptors shall be in accordance with I.S. EN 585-2:2003 (separator systems for light liquids). A manual shut-off valve shall be installed at the interceptors.
- All surface water run-off and wastewater (excluding toilet and canteen wastewater) discharges from the facility shall pass through the silt trap and oil interceptor prior to discharge.
- 3.11.4 The licensee shall submit a drawing to the Agency within twelve months of the date of grant of this licence, indicating all drainage arrangements at the site as detailed in the licence.
- 3.11.5 Prior to the commencement of waste activities, all foul sewer 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, and any identification designated in this licence (e.g. SW1) shall be inscribed on these manholes.
- 3.11.6 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.
- 3.11.7 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.

#### 3.12 Civic Waste Facility

- 3.12.1 The licensee shall establish and maintain the Civic Waste Facility infrastructure referred to in Attachment D.1(p) Civic Amenity/Bring Centre and shown on Drawing No. 2003-024-03-004 Rev. B *Overall Site Layout*, unless otherwise agreed by the Agency.
- 3.12.2 The licensee shall provide and maintain appropriate receptacles at the Civic Waste Facility for the storage of various waste types.

#### 3.13 Compost facility

Appropriate infrastructure for the composting of waste shall be established and maintained at the facility prior to any waste being composted. This infrastructure shall at a minimum comprise the following:

(a) Unless otherwise agreed by the Agency, the licensee shall within twelve months of the date of grant of this licence, provide and maintain the enclosed biodegradable waste composting building designated the green/organic waste intake area and an outdoors composting area including associated infrastructure as detailed in the Article 16 reply received on 17/12/04 and shown on Drawing No. 2003-024-03-004 Rev. B Overall Site Layout.

- (b) All leachate generated from this activity shall be collected and discharged to the wastewater drainage network.
- (c) The licensee shall provide and maintain an odour abatement system at the green/organic waste intake area as well as at the composting area shown on Drawing No. 2003-024-03-004 Rev. B Overall Site Layout which satisfies the following requirements:-
  - Installation and maintenance of integrity and negative pressure throughout the green/organic waste intake area building to ensure no significant escape of odours, dust or airborne bioaerosols.
  - ii) Installation of an odour management system.
  - iii) 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.
  - iv) Emissions from the biofilter systems located at the green/organic waste intake area and the composting area shall not exceed those ELV's as set out in *Schedule C: Emission Limits*, of this licence.

#### 3.14 Monitoring Infrastructure

#### 3.14.1 Groundwater

- (i) Prior to commencement of waste activities, the licensee shall install two groundwater monitoring points as shown on Figure No. J.1 Proposed Environmental Monitoring Locations of the Article 16 reply received on 17/12/04 to allow for the sampling and analyses of groundwater.
- (ii) All wellheads, whose locations are shown in. Fig. J.1 Proposed Environmental Monitoring Locations of the Article 16 reply received on 17/12/04 shall be adequately sealed to prevent surface contamination prior to commencement of waste activities (if required).
- (iii) Groundwater monitoring wells shall be constructed having regard to the guidance given in the Agency's landfill manual "Landfill Monitoring".

#### 3.14.2 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 RESTORATION AND AFTERCARE

4.1 Decommissioning and Aftercare of the facility shall be carried out as detailed in Attachment G.1 Decommissioning of the waste licence application. The licensee shall update these plans when required by the Agency.

**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 transfer building or at the composting area.
- 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 under the Waste Management (Collection Permit) Regulations 2001. Copies of these waste collection permits must be maintained at the facility.
  - 5.2.2 Prior to commencement of waste acceptance at the facility, the licensee establish and maintain detailed written procedures for the acceptance and handling of all wastes.
  - 5.2.3 Waste arriving at the facility shall be inspected at the point of entry to the facility and subject to this inspection, weighed, documented and directed to the Waste Transfer Building or the Civic Amenity Centre. 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.
  - 5.2.4 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.
  - 5.2.5 A record of all inspections of incoming waste loads shall be maintained.
  - 5.2.6 Waste shall be accepted at the facility only from known customers or new customers subject to initial waste profiling and waste characterisation off-site. The written records of this off-site waste profiling and characterisation shall be retained by the licensee for all active customers and for a two year period following termination of licensee/customer agreements. There shall be no casual public access to the waste transfer station.

#### 5.3 Operational Controls

- 5.3.1 The floor of the waste transfer building including the green/organic waste intake area shall be cleaned on a weekly basis and on a daily basis where putrescible waste is handled. The floor of the storage bays for recovered wastes shall be washed down and cleaned on each occasion such bays are emptied, or as a minimum on a weekly basis.
- 5.3.2 The green/organic waste shredder must not be operated between the hours of 18:00 and 08:00.
- 5.3.3 Scavenging shall not be permitted at the facility.
- 5.3.4 Gates shall be locked shut when the facility is unsupervised.
- 5.3.5 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 5.3.6 Fuels shall be stored only at appropriately bunded locations on the facility.
- 5.3.7 All tanks and drums shall be labelled to clearly indicate their contents.
- 5.4 Compost

In order not to be considered a waste, compost produced by the facility shall, unless otherwise agreed by the Agency, 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.

#### 5.5 Off-site Disposal and Recovery

All waste transferred from the facility shall be transferred by an authorised or exempted carrier, and only to an appropriate facility. The waste shall be transported only from the site of the activity to the site of recovery/disposal in a manner which will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.

#### 5.6 Civic Waste Facility

- 5.6.1 The Civic Waste Facility shall be used only by private vehicles. The facility shall not be used as a transfer station for disposal of waste by commercial waste disposal contractors or local authority waste collection vehicles.
- 5.6.2 The following wastes shall be accepted at the Civic Waste Facility: glass, aluminium cans, plastic bottles, textiles, timber, metal, papers, cardboard, green/organic waste, municipal solid waste, white goods, batteries, waste oils, waste electronic and electrical equipment (WEEE), unless otherwise agreed by the Agency.
- 5.6.3 All waste deposited in the Civic Waste Facility shall be either:-
  - (a) into a skip;
  - (b) into a receptacle for recovery;
  - (c) into a bunded area; or
  - (d) in the case where inspection is required, into a designated inspection area.
- 5.6.4 The licensee shall assign and clearly label each container at the Civic Waste Facility to indicate their contents.
- 5.6.5 At the end of the working day the ground around the Civic Waste Facility shall be cleared of waste.
- 5.6.6 All waste accepted at the Civic Waste Facility for disposal off-site shall be removed from the civic waste facility to the waste transfer building within 48 hours of its arrival on-site.

#### 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 The licensee shall maintain all waste processing equipment and infrastructure in accordance with the manufacturers instructions.

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 There shall be no direct emissions to groundwater.
- 6.4 There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the noise sensitive locations.
- 6.5 Disposal of Wastewater/Contaminated Surface Water Run-off

No wastewater and/or contaminated surface water run-off shall be discharged to surface water drainage network.

6.6 Emissions to Sewer

Unless otherwise agreed in advance by the Agency and the Sanitary Authority, the following shall apply for the discharge of wastewater and contaminated surface water run-off. There shall be no other discharge or emission to sewer of environmental significance.

- 6.6.1. No substance shall be present in emissions to sewer in such concentrations as would constitute a danger to sewer maintenance personnel working in the sewerage system, or as would be damaging to the fabric of the sewer, or as would interfere with the biological functioning of a downstream wastewater treatment works.
- 6.6.2. The licensee shall permit authorised persons of the Agency and the Sanitary Authority to inspect, examine and test, at all reasonable times, any works and apparatus installed, in connection with the discharge or emission, and to take samples of the discharge or emission.
- 6.6.3. No discharge or emission to sewer shall take place which might give rise to any reaction within the sewer or to the liberation of by-products which may be of environmental significance.
- 6.6.4. The licensee shall ensure that the discharge shall not contain dissolved methane, petroleum spirits or organic solvents (including chlorinated organic solvents), at concentrations which would give rise to flammable or explosive vapours in the sewer.
- 6.6.5. Non-trade effluent wastewater (e.g. firewater, accidental spillage) which occurs on-site shall not be discharged to the sewer without the prior authorisation of the Sanitary Authority.
- 6.6.6. The licensee shall provide and maintain an inspection chamber in a suitable position in connection with each pipe through which a discharge or emission is being made. Each such inspection chamber or manhole shall be constructed and maintained by the licensee so as to permit the taking of samples of the discharge.
- 6.7 Emission limit values for emissions to sewer in this licence shall be interpreted in the following way:
  - a) Continuous monitoring.

No flow value shall exceed the specified limit.

Non-Continuous monitoring.

Eight out of ten consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling shall not exceed 1.2 times the emission limit value.

c) No grab sample shall exceed 1.2 times the emission limit value.

**REASON:** To control emissions from the facility and provide for the protection of the environment and to provide for the requirements of the Sanitary Authority in accordance with Section 52 of the Waste Management Acts 1996 to 2003.

#### 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 Attachment F.5 Litter Control 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 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, except at Bank Holiday weekends.

  At Bank Holiday weekends, waste for disposal shall be removed within seventy-two hours of its arrival on site.
- 7.4.2 Green waste collected at the facility shall be stored in covered and enclosed containers and shall be transferred off-site on a weekly basis unless used on-site for composting.
- 7.4.3 Putrescible waste to be used for compost shall be composted within twenty-four hours after acceptance at the facility.
- 7.4.4 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.
- 7.4.5 Prior to the date of commencement of the waste activities at the facility, 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:-

- 7.4.5.1 Dust curtains (or equivalent approved by the Agency) shall be maintained on the entry/exit points from the waste transfer building, all other doors in this building shall be kept closed where possible.
- 7.4.5.2 Unless otherwise agreed by the Agency, all buildings processing putrescible waste shall be maintained at negative air pressure with ventilated gases being subject to treatment as specified by the Agency.
- 7.4.5.3 Installation of an odour management system.
- 7.4.5.4 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 RESOURCE USE AND ENERGY EFFICIENCY

- 8.1 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this licence. The audit shall be carried out in accordance with the guidance published by the Agency, "Guidance Note on Energy Efficiency Auditing". The energy efficiency audit shall be repeated at intervals as required by the Agency.
- 8.2 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.
- 8.3 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.
- The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets.

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

#### CONDITION 9 MONITORING

9.1 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 commencement of waste acceptance at the facility.

- 9.2 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.
- 9.3 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.
- 9.4 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.
- 9.5 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.
- 9.6 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, including any noise sensitive locations to be monitored. The drawing(s) shall include the eight-digit national grid reference of each monitoring point.
- 9.7 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.
- 9.8 Prior to the commencement of waste activities at this facility, 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.
- 9.9 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.

#### 9.10 Archaeological Assessment

Prior to the development of any undisturbed area, the advice of The Heritage Section of the Department of the Environment, Heritage and Local Government (formerly Dúchas) shall be sought. On completion of such development a report of the results of any archaeological monitoring shall be submitted to The Development Applications Section and to the Agency.

#### 9.11 Nuisance Monitoring

- 9.11.1 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.
- 9.11.2 Daily odour inspections shall be carried out at both the civic amenity and the waste transfer station where green waste is accepted as well as at the proposed composting area shown on Drawing No. 2003-024-03-004 *Overall Site Layout*, unless otherwise agreed by the Agency.

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

#### CONDITION 10 CONTINGENCY ARRANGEMENTS

- 10.1 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.
- 10.2 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.
- 10.3 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.
- 10.4 Emergencies
  - 10.4.1 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.
  - 10.4.2 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.
  - 10.4.3 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.
  - 10.4.4 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 11 RECORDS

- 11.1 The licensee shall keep the following documents at the facility office:
  - a) the current waste licence and specified attachments/drawings relating to the facility;
  - b) the current EMS for the facility;
  - c) the previous year's AER for the facility;
  - d) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility;
  - e) relevant correspondence with the Agency;
  - f) An up to date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points; and
  - g) all written procedures produced by the licensee which relate to the licensed activities.
- 11.2 The licensee shall maintain a record for each load of waste arriving at and departing from the facility, excluding those arriving at the Civic Waste Facility. The licensee shall record the following:
  - a) the date;
  - b) the name of the carrier (including if appropriate, the waste collection permit details);
  - c) the vehicle registration number;
  - d) the name of the producer(s)/collector(s) of the waste as appropriate;
  - 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;
  - 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; including waste licence and waste
    permit registration number of these facilities as appropriate; and
  - j) where applicable a consignment note number (including transfrontier shipment notification and movement/tracking form numbers, as appropriate).
- 11.3 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 and any details required to complete national reports on waste statistics;
  - 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 any actions taken as a result of these inspections;
     and
  - 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.
- 11.4 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.
- 11.5 A record shall be kept of each consignment of wastewater removed from the facility. The record shall include the following:
  - a) the name of the carrier;
  - b) the date and time of removal of wastewater from the facility;
  - c) the volume of wastewater, in cubic metres, removed from the facility on each occasion;
  - d) the name and address of the Waste Water Treatment Plant to which the wastewater was transported; and
  - e) any incidents or spillages of wastewater during its removal or transportation.
- 11.6 A record shall be kept for each load of waste departing from the Civic Waste Facility. The following shall be recorded:
  - a) the name of the carrier including permit number as appropriate;
  - b) the vehicle registration number;
  - c) the destination of the waste (facility name and waste licence/permit number as appropriate);
  - d) a description of the waste including the associated EWC codes (if recovered or rejected waste, the specific nature of the waste);
  - e) the quantity of waste, recorded in tonnes;
  - f) the name of the person checking the load; and
  - g) the time and date of departure.
- 11.7 A record shall be kept at the facility of the programme for the control and eradication of vermin and fly infestations at the facility. These records shall include as a minimum the following:
  - 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 12 REPORTS AND NOTIFICATIONS

- 12.1 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.

- 12.2 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:
  - a) be sent to the Agency's Headquarters;
  - b) comprise one original and two copies unless additional copies are required;
  - 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: Recording and Reporting to the Agency*, 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.
- 12.3 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 10.1(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 sewer, notify South Tipperary County Council 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.
- 12.4 Annual Environmental Report
  - 12.4.1 The licensee shall submit to the Agency for its agreement, by 31<sup>st</sup> March each year, an Annual Environmental Report (AER) for the previous year.

12.4.2 The AER shall include as a minimum the information specified in *Schedule G: 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 13 CHARGES AND FINANCIAL PROVISIONS

#### 13.1 Agency Charges

- 13.1.1 The licensee shall pay to the Agency an annual contribution of €10,317, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Waste Management Acts 1996 to 2003. For 2005 the licensee shall pay a pro rata amount from the date of commencement of enforcement of this licence to 31 December. 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.
- 13.1.2 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.
- 13.2 Financial Provision for Closure, Restoration and Aftercare
  - 13.2.1 The licensee shall from a date to be set by the Agency establish and maintain a fund, or provide a written guarantee, that is adequate to assure the Agency that the licensee is at all times financially capable of implementing the Restoration and Aftercare Plan required by Condition 4. The type of fund established and means of its release/recovery shall be agreed by the Agency prior to its establishment.
  - 13.2.2 Any fund established shall be maintained in an amount always sufficient to underwrite the current Restoration and Aftercare Plan.
  - 13.2.3 The licensee shall revise the cost of restoration and aftercare annually and any details of the necessary adjustments to the fund or guarantee must, within two weeks of the revision, be forwarded to the Agency for its agreement. Any adjustment agreed by the Agency shall be effected within four weeks of said written agreement.
  - 13.2.4 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.

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 Waste and Commercial Waste	21,000
Household Hazardous Waste <sup>Note 2</sup>	100
TOTAL	21,100

Note 1: The quantities of the individual waste types may be adjusted, only with the agreement of the Agency, subject to the total annual waste quantity remaining the same.

**Note 2:** Household hazardous waste types as listed in Table E.2.2 *Hazardous Waste Types and Quantities* of the application, unless otherwise agreed by the Agency.

# **SCHEDULE B:** Specified Engineering Works

#### **Specified Engineering Works**

Development of the facility including installation of waste handling, processing, recycling/recovery infrastructure and installation of increased waste processing capacity.

Installation of drainage network including silt traps and oil interceptors.

Installation of Compost Facility including both the green/organic waste intake area and the composting area.

Installation of dust/odour system.

Any other works notified in writing by the Agency.

### **SCHEDULE C:** Emission Limits

C.1 Noise Emissions: (Measured at any noise sensitive locations).

Daytime dB(A) L <sub>Aeq</sub> (30 minutes)	Night-time dB(A) L <sub>Aeq</sub> (30 minutes)
55	45

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

#### C.2 Dust Deposition Limits: (Measured at the monitoring points indicated in <u>Table D.1.1</u>).

Level (mg/m² /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 monitoring points indicated in Table D.1.1.

Parameter	Emission Limit Value
Mineral oils	5mg/l Note 1
	100mg/l Note 2

Note 1: Emission limit value for discharges from Class I interceptor to receiving water.

#### C.4 Emission Limits for Wastewater Emissions to Sewer

Emission Point Reference No. to be agreed by the Agency Volume to be emitted: Maximum rate: 10 l/s

#### C.5 Emission Limit Values from Biodegradable Waste Composting

Emission Point Reference No. BF1 and BF2

Parameter	Emission Limit Value	
Total Particulates	50 mg/m <sup>3</sup>	
Ammonia	50 (ppm v/v)	
Amines	5 (ppm v/v)	
Hydrogen Sulphide & 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.1.1and Figure J.1 *Proposed Environmental Monitoring Locations* of the Article 16 reply received on 17/12/04, unless otherwise indicated or agreed by the Agency.

Note 2: Emission limit value for discharges from Class II interceptor to sewer.

Table D.1.1 Dust, Noise, Surface Water, Wastewater and Groundwater Monitoring Locations

Air	Dust Deposition	Noise	Surface Water	Wastewater	Ground Water
Stations	Stations	Stations	Stations	Stations	Stations
BF1 BF2	D1 D2 D3 D4 Note 1	N1 N2 N3	Note 2	Note 3	GW1 GW2
		Any noise sensitive locations as may be specified by the Agency			

Note 1: Dust monitoring point D4 shall be located at the north western boundary of the facility subject to agreement by the Agency.

#### D.2 Dust

Table D.2.1 Dust Monitoring Frequency and Technique

Parameter (mg/m²/day)	Monitoring Frequency	Analysis Method/Technique
Dust	Three times a year Note 2	Standard Method Note 1

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.

#### 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 Note 1
L(A) <sub>10</sub> [30 minutes]	Annual	Standard Note 1
L(A) <sub>90</sub> [30 minutes]	Annual	Standard Note 1
Frequency Analysis(1/3 Octave band analysis)	Annual	Standard Note 1

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

#### D.4 Surface Water Emissions

Note 2: The surface water run-off shall be monitored prior to discharge to soakaway areas. The monitoring locations to be agreed by the Agency.

Note 3: The location of the wastewater monitoring point for monitoring of water discharged to the foul sewer (excluding sanitary wastewater) to be agreed by the Agency.

Note 2: Twice during the period May to September.

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

Parameter	Monitoring Frequency	Analysis Method/Technique	
pН	Quarterly	Electrometry	
Biological Oxygen Demand	Quarterly	Standard Methods <sup>Note 1</sup>	
Suspended Solids	Quarterly	Standard Methods <sup>Note 1</sup>	
Mineral Oils	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.5** Wastewater Emissions

Table D.5.1 Wastewater Monitoring Frequency and Techniques

Parameter	Monitoring Frequency	Analysis Method/Technique
pH	Quarterly	Electrometry
Temperature	Quarterly	Temperature probe
Biological Oxygen Demand	Quarterly	Standard Methods <sup>Note 1</sup>
Suspended Solids	Quarterly	Standard Methods <sup>Note 1</sup>
Fats, Oils, Grease	Quarterly	Standard Methods <sup>Note 1</sup>
Ammoniacal nitrogen	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.6 Groundwater

Table D 6.1 Groundwater - Parameters / Frequency

PARAMETER Note 1	MONITORING FREQUENCY
Visual Inspection/Odour Note 2	Quarterly
Groundwater Level Note 3	Quarterly
Electrical Conductivity Note 3	Quarterly
pH Note 3	Quarterly
Temperature Note 3	Quarterly
Mineral Oil Note 4	Quarterly

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

Note 2: Where there is evident gross contamination of groundwater, additional samples should be analysed.

**Note 3:** These parameters should be measured on-site with a portable electronic meter.

Note 4: 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.7 Emissions from Biodegradable Waste Composting Unit & Air Quality Monitoring

#### Table D.7.1 Dust, Odour and Micro-organisms Monitoring Frequency and Technique

Parameter Note 1	Monitoring Frequency	Analysis Method/Technique
Dust (mg/m²/day)	Quarterly Note 2	Standard Method Note 3
Odour	Quarterly Note 4	See Note 4
Bacteria	Bi-annually	Grab sample Note 5
Aspergillus fumigatus	Bi-annually	Grab sample Note 5

- 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: Odour measurements shall be by olfactometric measurement and analysis for mercaptans, hydrogen sulphide, ammonia, amines as set out in Table F4.3.
- Note 5: Enumeration of colonies to be carried out as described in 'Standardised Protocol for the Sampling and Enumeration of Airborn Microorganisms at composting Facilities' the Composting Association 1999.

Table D.7.2 Emissions to Atmosphere: Abatement/Treatment Control at Biodegradable Waste Composting Plant

Emission Point Reference No.: **BF1 and BF2** Description of Treatment: **Biofilter(s)** 

Control Parameter	Monitoring Required	Monitoring Equipment
Bed Media		
Odour Assessment Note 2	Daily	
Condition and Depth of biofilter Note 3	Daily	Visual Inspection
Moisture content	Quarterly	Standard laboratory method Note
pН	Quarterly	pH probe
Ammonia	Quarterly	Standard laboratory method Note
Total viable counts	Quarterly	Standard laboratory method Note
Inlet and Outlet Gas		
Ammonia	Weekly	Colorimetric Indicator Tubes
Hydrogen sulphide	Weekly	Colorimetric Indicator Tubes
Mercaptans	Weekly	Colorimetric Indicator Tubes Note 1

- 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 with 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: Recording and Reporting to the Agency

**Recurring Reports** 

recenting reports		
Report	Reporting Frequency Note1	Report Submission Date
Environmental Management System Updates	Annually	As part of the AER.
Annual Environment Report (AER)	Annually	By 31 March of each calendar year.
Record of incidents	As they occur	Within five days of the incident.
Bund, tank and container integrity assessment	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 as part of the AER.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Monitoring of Surface Water Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Groundwater Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Wastewater	Quarterly	Ten days after end of the quarter being reported on.
Dust Monitoring	Three times a year	As part of the AER.
Noise Monitoring	Annually	As part of the AER.
Any other monitoring	As they occur	Within ten days of obtaining results.

Note 1: Unless altered at the request of the Agency

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

- $\triangleright$  C/N ratio  $\leq 25$
- ➤ oxygen uptake rate  $\leq$  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.

#### 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	≤1.5%
percentage of oven-dried mass	
Foreign matter, maximum	25 mm
dimensions	

#### 3. Trace Elements

Maximum Trace Element Concentration Limits for Compost<sup>Note 1</sup>

Trace Elements	(mg/kg, dry mass)
Cadmium (Cd)	1.5
Chromium (Cr)	100
Copper (Cu)	100
Mercury (Hg)	1
Nickel (Ni)	50
Lead (Pb)	150
Zinc (Zn)	350

Note 1: 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).

#### 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 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).

Environmental Management System updates.

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.

Report on waste recovery.

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

Report on training of staff.

Volume of wastewater produced and volume of wastewater 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 16th day of February, 2005	Dr Tom McLoughlin, Authorised Person