

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

TECHNICAL AMENDMENT A
TO
WASTE LICENCE

Licence Register Number:	W0180-01
Licensee:	McGill Environmental Systems (Ireland) Limited
Location of Facility:	Coom, Carrignavar/Glenville, County Cork.



Reasons for the Decision

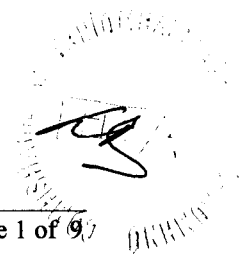
The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of licence Reg. No. W0180-01 granted on 17/02/2004, as well as any amendments noted herein, any emissions from the activity will comply with and not contravene any of the requirements of Section 40(4) of the Waste Management Acts 1996 to 2010.

Technical Amendment

In pursuance of the powers conferred on it by Section 42B(1)(b) and (c) of the Waste Management Acts 1996 to 2010, the Agency amends Licence Reg. No. W0180-01, granted to McGill Environmental Systems (Ireland) Limited, Coom, Carrignavar/Glenville, County Cork.

Henceforth, the licence shall be read in conjunction with the amendments set out below.

This technical amendment is limited to the following Glossary of Terms/Schedule/Condition(s):



Amendments

Glossary of Terms

BAT	Best Available Techniques.
Composting	The autothermic and thermophilic biological decomposition of separately collected biowaste in the presence of oxygen and under controlled conditions by the action of micro- and macro-organisms in order to produce compost.
Incident	The following shall constitute an incident for the purposes of this licence: <ul style="list-style-type: none">(i) an emergency;(ii) any emission which does not comply with the requirements of this licence;(iii) any trigger level specified in this licence which is attained or exceeded; and,(iv) any indication that environmental pollution has, or may have, taken place.
Mechanical/Biological Treatment	The treatment of residual municipal waste, unsorted waste or any other biowaste unfit for composting or anaerobic digestion in order to stabilise and reduce the volume of the waste.
Organic Fines	The undersize fraction obtained from the mechanical treatment of waste, characterised by a high organic content.
Separate Collection	The collection of biowaste separately from other kinds of waste in such a way as to avoid the different waste fractions or waste components from waste being mixed, combined or contaminated with other potentially polluting wastes, products or materials.
Stabilised Biowaste	The waste resulting from the mechanical/biological treatment of unsorted waste or residual municipal waste as well as any other treated biowaste which does not comply with the environmental quality classes 1 or 2 of <i>Schedule H: Standards for Compost Quality</i> , of this licence.

Terms to be inserted into the Glossary of the existing licence.

Conditions of Licence

Condition 1.3	Unless otherwise agreed with the Agency, the wastes as outlined in <i>Schedule A: Waste Acceptance</i> of this licence and as listed under Annex 1 of the EC Working Document 'Biological Treatment of Biowaste' (2 nd draft), 2001 or subsequent amendments shall only be accepted at the facility for the production of compost or stabilised biowaste.
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Delete condition 1.3 of the existing licence and replace with the above condition

Condition 1.4 Waste shall only be accepted at the facility, from Local Authority waste collection or transport vehicles or holders of waste collection permits, unless exempted or excluded, issued under the Waste Management (Collection Permit) Regulations 2001. Copies of these waste collection permits must be maintained at the facility.

Delete condition 1.4 of the existing licence and replace with the above condition

Condition 2.5 Resource Use and Energy Efficiency

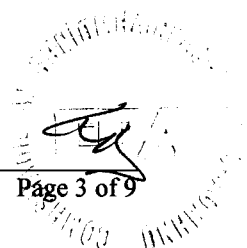
- 2.5.1 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this amendment. The audit shall:
- (i) identify all opportunities for energy use reduction and efficiency,
 - (ii) be carried out in accordance with the guidance published by the Agency, "Guidance Note on Energy Efficiency Auditing" and
 - (iii) be repeated at intervals as required by the Agency.
- The recommendations of the audit shall be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2.3 above.
- 2.5.2 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 the Schedule of Environmental Objectives and Targets.
- 2.5.3 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.

Insert after Condition 2.4 of the existing licence.

Reason: *To make provision for management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment and to provide for the efficient use of resources and energy in all site operations.*

Replace the original reason for Condition 2 in the existing licence with the above reason.

Condition 4 Decommissioning & Residuals Management



4.2 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery, any soil, subsoils, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution. The licensee shall carry out such tests, investigation or submit certification, as requested by the Agency, to confirm that there is no risk to the environment.

Insert after Condition 4.1 of the existing licence.

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

Replace the original reason for Condition 4 in the existing licence with the above reason.

Condition 5.2.1 Unless otherwise agreed with the Agency, all waste accepted into the biowaste reception/composting building (apart from bulking agents/green waste) shall be transferred to a composting container within 12 hours of receipt.

Delete Condition 5.2.1 of the existing licence and replace with the above condition.

Condition 5.2.6 Only organic fines and separately collected commercial and municipal biowaste may be accepted at the facility.

Delete Condition 5.2.6 of the existing licence and replace with the above condition.

Condition 5.6 Compost and Stabilised Biowaste Quality

5.6.1 Stabilised biowaste shall be treated as a waste.

5.6.2 Compost and stabilised biowaste shall comply with the quality standards as set out in *Schedule H: Standards for Compost Quality* of this licence. Analysis of the compost and stabilised biowaste shall be in accordance with the requirements of *Schedule E*.

5.6.3 Composted material not meeting the standard for stabilised biowaste as per *Schedule H: Standards for Compost Quality* may be reused in the process or handled as a waste and details recorded as per Condition 10.

5.6.4 Outlet sites for stabilised biowaste shall be submitted in advance to the Agency for its agreement.

5.6.5 A record of the quantity of compost and stabilised biowaste produced per annum shall be maintained on-site and available for inspection and shall be reported in the AER.

Delete Condition 5.6 of the existing licence and replace with the above condition

Condition 5.11 Prior to the acceptance of Category 3 animal by-product waste at the facility the licensee shall submit to the Agency a copy of the consent received from the Department of Agriculture and Food to treat the relevant waste types specified in Schedule A: Waste Acceptance.

Condition 5.12 The licensee shall ensure that where:

- (i) organic fines; and
- (ii) separately collected biowaste

are stored, processed or composted in the same building, the areas used to store materials (i) and (ii) shall be physically separated from each other by a wall or such substantial physical barrier to prevent cross contamination and mixing. The area used to store or process each of these waste types shall be designated and adequately labelled to indicate whether only: (i) organic fines, or (ii) separately collected biowaste, can be stored there.

Condition 5.13 There shall be no mixing of:

- (i) organic fines or outputs from the composting of this waste; with
- (ii) separately collected biowaste or the compost derived from separately collected biowaste.

Insert the above conditions after Condition 5.10 of the existing licence.

Condition 9.8 Accident Prevention and Emergency Response

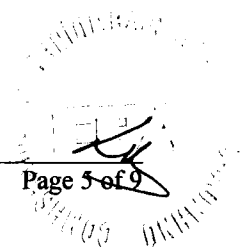
9.8.1 The licensee shall, within twelve months of date of this amendment, ensure that a documented Accident Prevention Policy is in place, which will address the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.

9.8.1 The licensee shall, within twelve months of date of this amendment, ensure that a documented Emergency Response Procedure is in place, which shall address any emergency situation that may originate on-site. This Procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.

Condition 9.9 Incidents

9.9.1 In the event of an incident the licensee shall immediately:

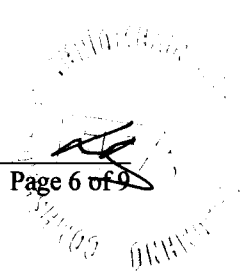
- (i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
- (ii) isolate the source of any such emission;
- (iii) evaluate the environmental pollution, if any, caused by the incident;
- (iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
- (v) identify the date, time and place of the incident;
- (vi) notify the Agency and other relevant authorities.



9.9.2 The licensee shall provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency to:

- (i) identify and put in place measures to avoid reoccurrence of the incident;
and
- (ii) identify and put in place any other appropriate remedial action.

Insert these conditions after Condition 9.7 of the existing licence.



Schedules to Licence

Schedule A: Waste Acceptance

<i>WASTE TYPE</i>	<i>MAXIMUM ANNUAL WASTE QUANTITY TO BE ACCEPTED</i>
<i>Category 3 Biodegradable Household Waste</i> <small>Note 3 Note 4</small>	<i>3,900</i>
<i>Category 3 Biodegradable Commercial Waste</i> <small>Note 3 Note 4</small>	<i>1,300</i>
<i>Sewage Sludges</i>	<i>5,200</i>
<i>Category 3 Industrial Sludges</i> <small>Note 4, Note 5</small>	<i>10,400</i>
<i>TOTAL</i>	<i>20,800</i>

- Note 1:** These tonnages refer only to the waste which is accepted for composting and not material such as straw or sawdust which is added to the incoming biowaste.
- Note 2:** The waste quantities referred to in this table may be amended with the agreement of the Agency provided the total quantity of waste specified is not exceeded.
- Note 3:** The biowaste accepted at the facility shall be either separately collected biodegradable household and commercial waste or organic fines waste.
- Note 4:** Only Category 3 material as per the Animal By-Products Regulations 1774/2002 and in accordance with Condition 5.11 shall be accepted at the facility. Category 1 or 2 material shall not be accepted.
- Note 5:** Acceptance of this waste type to be in accordance with Condition 1.3.

Delete Schedule A of the existing licence and replace with the above Schedule A

SCHEDULE H: Standards for Compost Quality

Unless otherwise agreed in writing by the Agency, the following criteria are deemed a quality standard for the use of compost as a soil improver and should not be deemed as criteria for fertiliser. In addition N, P, K, NH₄-N, NO₃-N, pH and dry matter content should also be measured.

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

1. Maturity

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

- C/N ratio ≤ 25
- oxygen uptake rate ≤ 150 mg O₂/kg volatile solids per hour; and
- germination of cress (*Lepidium sativum*) seeds and of radish (*Raphanus sativus*) seeds in compost must be greater than 90 percent of the germination rate of the control sample, and the growth rate of plants grown in a mixture of compost and soil must not differ more than 50 percent in comparison with the control sample.
- Elimination of the following test organisms (used to evaluate composting system efficiency in removing plant pathogens and weed seeds during the composting process): *Plasmodiophora brassicae*, tobacco-mosaic-virus (TMV) and tomato seeds.

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

2. Trace Elements (Compost and Stabilised Biowaste) ^{Note 1, 2 & 3}

Maximum Trace Element Concentration Limits ^{Note 4}

Cadmium (Cd)	0.7	1.5	5
Chromium (Cr)	100	150	600
Copper (Cu)	100	150	600
Mercury (Hg)	0.5	1	5
Nickel (Ni)	50	75	150
Lead (Pb)	100	150	500
Zinc (Zn)	200	400	1500
Polychlorinated Biphenyls (PCB's)	-	-	0.4
Polycyclic Aromatic Hydrocarbons (PAH's)	-	-	3
Impurities >2mm ^{Note 6}	<0.5%	<0.5%	<3%
Gravel and Stones >5mm ^{Note 6}	<5%	<5%	-

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

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

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

Note 4: The above alone should not be taken as an indication of suitability for addition to soil as the cumulative metal additions to soil should be first calculated.

Note 5: Normalised to 30% organic matter content.

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

3. Pathogens

Pathogenic organisms content must not exceed the following limits:

- Escherichia coli $\leq 1,000$ CFU/g fresh weight; and
- Salmonella species absent in 25 g sample.

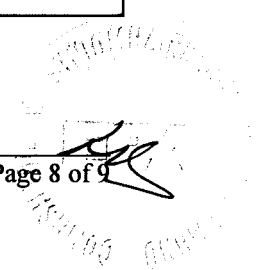
4. Monitoring

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.

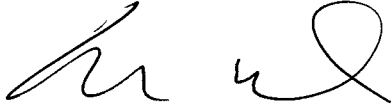
Delete Schedule H of the existing licence and replace with the above Schedule H.



This technical amendment shall be cited as Amendment A (in pursuance of Section 42B(1) of the Waste Management Acts 1996 to 2010) to Waste Licence Register No.W0180-01.

Sealed by the seal of the Agency on this the 15th day of November 2010

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



Laura Burke, Director/Authorised Person