



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

TECHNICAL AMENDMENT A TO WASTE LICENCE

(IN PURSUANCE OF SECTION 42B(1) OF THE WASTE MANAGEMENT ACTS
1996 TO 2005)

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For remedial purposes only.*

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|---------------------------------|--|
| Licence Register Number: | W0195-01 |
| Licensee: | Padraig Thornton Waste Disposal Limited |
| Location of Facility: | Ballynalurgan, Kilmainhamwood, Kells, Co Meath. |

Reason 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. W0195-01 granted on the 21/07/2005, 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 2005.

Technical Amendment of Conditions

In pursuance of the powers conferred on it by Section 42B(1)(c) of the Waste Management Acts 1996 to 2005, the Agency amends Licence Reg. No. W0195-01, granted to Padraig Thornton Waste Disposal Limited for a facility located at Ballynalurgan, Kilmainhamwood, Kells, Co. Meath.

Henceforth, Waste Licence Register No. W0195-01 (granted 21/07/2005) shall be read in conjunction with the amendments set out below.

This technical amendment is limited to the following Glossary of Terms/Conditions/Schedule of Licence Reg. No. W0195-01:

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Amendments

The Location of Facility address is replaced by the following:

| | |
|-----------------------|---|
| Location of Facility: | Killmainhamwood Compost, Ballynalurgan, Killmainhamwood, Kells, Co Meath. |
|-----------------------|---|

Glossary

The following terms shall be inserted into the Glossary:

| | |
|--|---|
| 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. |
| 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. |
| 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 E: Standards for Compost Quality</i> , of this licence. |

The following shall replace the existing glossary interpretation:

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|-----------------|--|
| Licensee | Padraig Thornton Waste Disposal Limited, Killmainhamwood Compost, Ballynalurgan, Killmainhamwood, Kells, Co Meath. |
|-----------------|--|

New Conditions

- 3.14 The licensee shall provide and maintain a Wastewater Treatment system at the facility for the treatment of sanitary effluent arising on-site. Any percolation area shall satisfy the criteria set out in the Wastewater Treatment Manual, Treatment Systems for Single Houses, published by the Agency.

Insert after Condition 3.13 of the existing licence.

12.2 Environmental Liabilities

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

Insert after Condition 12.1.2 of the existing licence.

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

Amended Conditions

Condition 1.4 is replaced by the following:

- 1.4 Unless otherwise agreed with the Agency, the wastes as outlined in *Schedule A: Waste Acceptance* of this licence and as listed under Annex 1 of the EC Working Document 'Biological Treatment of Biowaste' (2nd draft), 2001 or subsequent amendments shall only be accepted at the facility for the production of compost or stabilised biowaste.

Condition 3.11.1 is replaced by the following:

- 3.11.1 The licensee shall install and maintain silt traps and oil interceptor at the facility to ensure that all storm water discharges from the facility pass through a silt trap and oil separator in advance of discharge. The interceptor shall be a Class I by-pass interceptor and the silt traps and separator shall be in accordance with I.S. EN 858-2:2003 (separator systems for light liquids).

Condition 5.2.1 is replaced by the following:

- 5.2.1 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.

Condition 5.8 is replaced by the following:

- 5.8 Compost and Stabilised Biowaste Quality
- 5.8.1 Stabilised biowaste shall be treated as a waste.
 - 5.8.2 Compost and stabilised biowaste shall comply with the quality standards as set out in *Schedule E: Standards for Compost Quality* of this licence. Analysis of the compost and stabilised biowaste shall be in accordance with the requirements of *Schedule E*.
 - 5.8.3 Composted material not meeting the standard for stabilised biowaste as per *Schedule E: Standards for Compost Quality* may be reused in the process or handled as a waste and details recorded as per Condition 10.
 - 5.8.4 Outlet sites for stabilised biowaste shall be submitted in advance to the Agency for its agreement.

- 5.8.5 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.

Schedule Amendments

Schedule E: Standards for Compost Quality is replaced by the following:

SCHEDULE E: Standards for Compost Quality

Unless otherwise agreed in writing by the Agency, the following criteria are deemed a quality standard for the use of compost as a soil improver and should not be deemed as criteria for fertiliser. In addition N, P, K, 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}

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

Note 1: These limits apply to the compost 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.

Schedule E above replaces Schedule E .of the existing licence.

This technical amendment shall be cited as Amendment A (in pursuance of Section 42B(1) of Waste Management Acts 1996 to 2005) to Waste licence Reg. No. W0195-01 which was granted on 21/07/2005.

Sealed by the seal of the Agency on this the 25th day of October, 2006.

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

Padraic Larkin, Director/Authorised Person