

This report has being cleared for submission to the Board by Senior Inspector: Brian Meaney

Signed: Joseph Kennedy Date: 21/09/09



## OFFICE OF CLIMATE, LICENSING & RESOURCE USE

TO:	DIRECTORS
FROM:	Caroline Kelly - Licensing Unit
DATE:	31 August 2009
RE:	EPA-initiated review of a waste licence for South Dublin County Council - Arthurstown Landfill, Kill, County Kildare Licence Register No. W0004-04

<i>Application Details</i>	
Type of facility:	Landfill
Class(es) of Activity ( <b>P</b> = principal activity):	3 <sup>rd</sup> Schedule: Classes 1P, 4, 5, 6 and 7
Quantity of waste managed per annum:	600,000 tonnes
Classes of Waste:	Baled Municipal Waste
Location of facility:	Arthurstown, Kill, County Kildare
Licence review initiated:	18 <sup>th</sup> June 2009
Third Party submissions:	None
Licensee submission:	20 <sup>th</sup> July 2009
EIS Required:	No
Article 16(3)(a)(i) Notification	27 <sup>th</sup> July 2009
Article 16(3)(a)(i) Reply	14 <sup>th</sup> August 2009
New or existing facility (i.e. operational pre- or post-16 July 2001)	Existing
Site Inspection	None

On 18 June 2009, the Environmental Protection Agency initiated a review of the waste licence relating to the landfilling activities at Arthurstown, Kill, County Kildare waste licence register number W0004-03. The review was initiated by

writing to the licensee and placing a newspaper notice in the Irish Independent. The reasons for initiating the review are as follows:

- Section 46(2)(b) of the Waste Management Acts, 1996 to 2008, requires that the EPA review a waste licence if “new requirements (whether in the form of standards or otherwise) are prescribed, by or under any enactment or Community act, being requirements that relate to the conduct or control of the activity to which the waste licence relates.” In this case, there is a need to further elaborate and give effect to articles 5 and 6 of Council Directive 1999/31/EC on the landfill of waste (the Landfill Directive) regarding the treatment of waste prior to landfill and diversion of biodegradable municipal waste from landfill.
- There is also the need to give effect to article 49(5) of the Waste Management (Licensing) Regulations 2004 which states that waste that has not been subject to treatment shall not be accepted or disposed of in a landfill facility.
- Article 52(5) of the Waste Management (Licensing) Regulations 2004, as amended, requires the EPA to review a waste licence in order that a landfill will operate in compliance with the relevant requirements of the Landfill Directive. In this regard, an assessment of the landfill conditioning plan was carried out by the Office of Environmental Enforcement and taken into account in the review of the licence.
- There is also a need to further the general Best Available Techniques (BAT) obligation to reduce the overall environmental impact of landfill. In this context, there are newly elaborated limits on the acceptance of biodegradable municipal waste at landfill (expressed in the document *Municipal Solid Waste – Pre-treatment and Residuals Management: An EPA Technical Guidance Document* published 19 June 2009) that have regard to the need to implement and achieve landfill diversion targets set out in Landfill Directive. The diversion of biodegradable municipal waste will, *inter alia*, reduce landfill gas production and have consequent benefits regarding greenhouse gas emissions and the potential for odour nuisance.
- There is a need to enhance the licence’s control and management of odour as requested by the Office of Environmental Enforcement on foot of odour complaints received in relation to the facility.

In addition, one technical amendment made to the licence since its issue has been inserted and consolidated into the text.

The conditions limiting the acceptance of biodegradable municipal waste will contribute to implementation of the National Strategy on Biodegradable Waste (Department of the Environment, Heritage and Local Government, 2006).

The principal new conditions relate to the following:

1. The requirement to pre-treat all waste prior to acceptance for disposal (Condition 1.5.1).

2. The imposition of new limits on the amount of biodegradable municipal waste that can be accepted at the facility (Condition 1.6.1). From 1 January 2010, only 40% of municipal waste accepted at the facility for landfilling can be biodegradable. In 2013 this reduces to 24% and in 2016 to 15%. The benefits of this restriction include a reduction in landfill gas generation and hence odour nuisance potential and reduced leachate generation.
3. The need to measure waste intake and report compliance with the conditions described in items 1 and 2 above (Conditions 11.7)
4. Condition 5.6.3 prohibits the use of bio-stabilised residual waste<sup>1</sup> as daily cover unless the material has been stabilised in accordance with Condition 1.7.4 of the licence and satisfies Department of Agriculture, Fisheries and Food requirements in relation to the treatment of animal by-products, recently articulated in DAFF guidance<sup>2,3</sup>. Material not meeting these requirements must be disposed of in the landfill body.
5. The need to ensure that all potential environmental liabilities are addressed (Condition 12.5).

A number of other conditions are also amended or inserted. Existing conditions with timeframes have been altered to remove references to dates now past. The following is a full list of new or amended conditions and schedules in the licence (not including technical amendments previously made):

**Table 1 List of new or amended conditions**

Condition or Schedule number	Replacing an existing condition?	New condition?	Description
Interpretation		✓	To update with new definitions.
1.4.4		✓	To prohibit the acceptance of explosive, corrosive, oxidising or flammable material to the landfill
1.4.5		✓	Establishment of waste acceptance procedures
1.4.6		✓	Prohibit the dilution or mixture of waste in order to fulfil waste acceptance requirements
1.5	✓		Only pre-treated wastes permitted at landfill
1.6		✓	Limits the acceptance of BMW
1.7		✓	Determining the BMW content of the accepted waste.
1.8		✓	Waste quarantine
2.3.2.1	✓		Revised Environmental Objectives and Targets schedule requirements
2.3.2.3		✓	Landfill Environmental Management Plan

<sup>1</sup> Defined in the PD.

<sup>2</sup> Conditions for approval and operation of composting plants treating animal by-products in Ireland, 27 March 2009, Department of Agriculture, Fisheries and Food, Animal By-Products Section.

<sup>3</sup> Conditions for approval and operation of biogas plants treating animal by-products in Ireland, 27 March 2009, Department of Agriculture, Fisheries and Food, Animal By-Products Section.

Condition or Schedule number	Replacing an existing condition?	New condition?	Description
5.6.3		✓	Only bio-stabilised residual waste may be used as landfill cover.
8.14.2	✓		Requirement to carry out an Odour Management Plan (OMP)
8.14.3		✓	Measures to be included in OMP
8.14.4	✓		Revised condition to reflect requirements of OMP
8.14.6		✓	Requirement to include OMP in AER
8.14.7		✓	VOC trigger levels
8.14.8		✓	Covering of leachate lagoons
8.14.9		✓	Covering of odour forming wastes
8.14.10		✓	Sludges to be pre-treated.
8.14.11		✓	Include provisions for odour control when siting landfill infrastructure.
8.18		✓	To ensure competent testing of waste
10.2	✓		Updated waste recording requirements
10.9		✓	Waste checking, inspection and record keeping
11.6		✓	Requirement to provide report on waste recovery.
11.7		✓	Report on compliance with diversion targets
11.8		✓	Notification to the Agency of any waste not meeting waste acceptance criteria
12.4		✓	Requiring landfill costs be covered by disposal charges
12.5		✓	Environmental Liabilities Risk Assessment
Schedule A, Table A.1.2		✓	Total Permitted Landfill Capacity by volume
Schedule D, Table D3		✓	Ambient odour monitoring
Schedule D, Table D9		✓	Waste Monitoring
Schedule E	✓		Recording and reporting to the Agency
Schedule F	✓		AER

### Best Available Techniques (BAT)

The pre-treatment and diversion of waste represent BAT as published in the Pre-Treatment Guidance Document.

## **Compliance with Directives/Regulations**

Table 1 sets out what new and amended conditions are intended to ensure that the facility operates in compliance with the provisions of the Landfill Directive (1999/31/EC).

## **Proposed Decision**

It is my opinion that the new/amended conditions proposed in the attached Recommended Decision address BAT as set out in the Pre-Treatment Guidance Document; the requirements of article 52 of the Waste Management (Licensing) Regulations, 2004, as amended, regarding conditioning plans; other provisions of the Landfill Directive (1999/31/EC); and the concerns regarding odour nuisance notified by the Office of Environmental Enforcement. The new/amended conditions will not cause any new or increased emissions over and above the emission limit values specified in the licence. Thus the requirements of section 40(4) of the Waste Management Acts 1996 to 2008 will continue to be met.

## **Submissions**

As the EPA initiated this review, the licensee was entitled to make a submission. A submission was received from the licensee. The following are the items addressed in the submission:

### **Waste acceptance**

The licensee has requested that no change in waste acceptance criteria be imposed at Arthurstown landfill for the remainder of its lifespan, as it expects the landfill to close in June 2010.

Response:

All operational landfill sites are subject to the provisions of the landfill directive and will be subject to the same waste acceptance criteria with regard to the proportions of biodegradable municipal waste (BMW) allowed. It is therefore not possible or reasonable to exclude this landfill site from these acceptance criteria.

Recommendation:

No change on foot of the submission

## **Landfill Gas Monitoring**

The licensee requests that monitoring of landfill gas in the area known as 'Gavin's Dump' be reduced from quarterly to yearly.

Response:

Condition 8.2 allows for the frequency of monitoring to be amended upon written instruction by the Agency. An amendment to monitoring frequency is therefore not considered necessary as part of this review.

Recommendation:

No change

### **Leachate Levels – Condition 5.9.2**

The licensee requests that the limit on leachate levels on top of the liner within the landfill body be increased to 2 metres.

Response:

The requirement that leachate levels in the waste shall not exceed a level of 1.0m over the top of the liner at the base of the landfill is a standard condition for landfill licences. Any alteration to this limit would not be in line with best practice.

Recommendation:

No change

### **Recirculation of Leachate – Condition 5.9.5**

The licensee requests that the licence be amended to permit recirculation of leachate.

Response:

The condition states that “recirculation of leachate or other contaminated water shall not be undertaken without the prior agreement of the Agency”. Given that recirculation can be carried out within the scope of the licence, subject to the Agency’s agreement, an amendment to the condition is not considered necessary as part of this review.

Recommendation:

No change

### **Landfill Gas Boreholes**

The licensee requests that landfill gas boreholes be reduced to quarterly monitoring.

Response:

Condition 8.2 allows for the frequency of monitoring to be amended upon written instruction by the Agency. An amendment to monitoring frequency is therefore not considered necessary as part of this review.

Recommendation:

No change

### **NOx monitoring**

The licensee requests that NOx be monitored quarterly.

Response:

Condition 8.2 allows for the frequency of monitoring to be amended upon written instruction by the Agency. An amendment to monitoring frequency is therefore not considered necessary as part of this review.

Recommendation:

No change

### **Condition 6.2 and Condition 7.1**

The licensee requests that *'the requirements of these two licence conditions be amended to take account of the fact that on occasions it is not possible to ensure full compliance with them as they are currently applied'*.

Response:

Condition 6.2 states:

*'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.'*

Condition 7.1 states:

*'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 by the licensee to control any such nuisance shall not cause environmental pollution.'*

The above conditions constitute the basic compliance required in terms of environmental impact mitigation and nuisance control. It is not considered reasonable or necessary to alter these conditions.


Recommendation:

No change

### **Overall Recommendation**

I have considered all the documentation governing the grounds for the review of this licence, including submissions, and recommend that the Agency grant a revised licence subject to the conditions set out in the attached RD and for the reasons as drafted.

Signed



Caroline Kelly  
Inspector

### **Procedural Note**

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Acts 1996-2008.