



**OFFICE OF LICENSING & GUIDANCE**

**INSPECTORS REPORT ON A LICENCE APPLICATION**

<b>To:</b>	DIRECTORS (Sub Board)	
<b>From:</b>	Breen Higgins	<b>- LICENSING UNIT</b>
<b>Date:</b>	4 APRIL 2005	
<b>RE:</b>	Application for a Waste Licence ( <b>Review</b> ) from Limerick County Council, <b>Licence Register 17-3</b> , Gortadroma Landfill.	

**Application Details**

Type of facility:	Landfill for Non-Hazardous Waste.
Class(es) of Activity ( <b>P</b> = principal activity):	3 <sup>rd</sup> Schedule: 1, 5( <b>P</b> ), 6, 7, 11 and 13. 4 <sup>th</sup> Schedule: 2, 3, 4, 9, 10, 11, 12 and 13.
Class(es) of Activity Refused	3 <sup>rd</sup> Schedule: 4
Quantity of waste managed per annum: (applied for)	130,000 tonnes. Note: The existing max annual tonnage is 130,000T.
Classes of Waste:	See Section 2.
Location of facility:	Gortadroma, Ballyhahill, Co. Limerick.
Licence application received:	02 July 2004.
Third Party submissions:	Eight.
EIS Required:	An EIS was submitted to the planning authority ( An Bord Pleanála - ABP) on 21 November 2003 under Section 175 of the Planning and development Act, 2000, and was attached to the Waste Application.
Article 14 Notices sent:	06 August 2004.
Article 14 compliance date:	08 March 2005.
Site Inspection:	Site Notice checked by BH on 27/07/04 Site audit 23/09/04 (B.H, R.C, B.F)

## **1. Facility**

This report relates to an application by Limerick County Council (LCC) for a review of the existing waste licence at Gortadroma Landfill (Reg. No. 17-2 issued on 25/09/2003). The existing landfill site covers an area of 35 hectares. The landfill has been in existence since 1990 and is located in a rural area about 12km north of Newcastlewest. Cells 1-4 are unlined and later cells are lined. Up to December 2003, it is estimated that 830,000 tonnes of waste have been landfilled at the facility. The County Council wish to expand the landfill with eleven new lined cells into an area East of the existing facility boundary, and extend same boundary. The proposed extension will have a footprint of approximately 41 hectares.

The proposed site is located to the East of the existing facility in a gently sloping area that is predominately in agricultural use, mainly small to medium size dairy and beef enterprises. The area forms part of the upper catchment of the White River, while the bedrock geology of the area indicates that the proposed extension area and existing landfill site is underlain by the Shannon Group (SHG) and is composed of mudstone, sandstone and siltstone. Of the proposed 41 hectare extension 19 hectares will be developed into 11 individual discrete lined cells while the remaining 22 hectares is to be used as a buffer area for screening /landscaping and for the provision of site infrastructure (Condition 3.15). The layout of the new cells will bring activities closer to some private dwellings located to the north of the facility, with the dwelling of closest proximity being 210m from the waste disposal area, as per Figure 3.1.1 of the application. However, the nearest private dwelling is located 90m from the southern boundary of the facility.

In summary the proposed extension of Gortadroma Landfill will require:

- A revision of the facility boundary to include lands to the East to make way for the installation of eleven lined cells – this is acceptable as per Condition 1.4;
- An increase in the final height of the facility from 128.5mOD to 132.0m OD – this is acceptable as per Condition 10.6
- An increase in the level of the screening/buffer area to be used – this is acceptable as per Condition 3.15.

### **Other Infrastructure:**

Infrastructure at the facility includes offices, weighbridge, wheelwash, landfill gas collection system with an enclosed flare, leachate collection, treatment and storage infrastructure, stormwater settling lagoons, a civic waste facility and a composting slab. An area of 77,000 m<sup>2</sup> (Cells 1-10) has been finally capped, while the three remaining cells have been lined. A bentonite cut-off wall has been constructed around Cells 1-4 of the facility to eliminate any risk of surface water contamination from the unlined portion of the development.

## **2. Operational Description**

The Recommended Decision provides for the continued acceptance of up to 130,000 tonnes per annum of non-hazardous waste for disposal at the facility. The waste types to be accepted at the facility are similar to 17-2, household and commercial waste comprising (111,000tpa) with the remaining 19,000 being made up of Sewage Sludge (4,770tpa), Industrial Non-Hazardous Sludge (1,200tpa), Industrial Non-Hazardous Solids (11,000tpa) and Water Treatment sludge (2,030tpa). However, it is not good practice to handle wet sludges in a lined cell and as such Class 4 of the Third Schedule will not be required. Condition 8.2.6 of the RD formalises the acceptance of sludges. Only sludge which has undergone biological, chemical

or heat treatment, long-term storage or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use will be acceptable under the terms of the licence. In addition Condition 8.2.9 of the RD prohibits the disposal of treated sewage sludge at the facility after January 1<sup>st</sup> 2009.

The applicant proposes to operate the landfill at the same hours as the existing licence, Condition 1.6.

### **3. Use of Resources**

Details of resource use appear in Attachment E5 of the application specifying diesel fuel (21,753 litres/annum), electricity (2,345 units) and oil (4 tonnes).

### **4. Emissions**

The following concentrates on those operations or aspects of the facility that may have a significant impact on the environment:

#### **4.1 Air**

The estimated landfill gas quantities are specified in Volume 3, Appendix D of the EIS and are modelled (GasSim) at 17 million m<sup>3</sup>/annum up for the year 2003 with a projected peak gas production of 26 million m<sup>3</sup>/annum in 2020. The existing licence required the installation of a gas flare by September 2004 and hence Condition 3.26.1 has immediate effect.

#### **4.2 Leachate Management**

The capacity of the leachate treatment plant is 120m<sup>3</sup>/day from which there has been limited discharge of treated effluent from the facility since January 2005. Due to the intention by the licensee to recirculate leachate within a number of the cells it has been decided to request leachate level monitoring locations at three points within the bentonite cut-off wall and to require two locations in Cells 5-10 and three leachate level monitoring points in Cell 11 and all subsequent cells. All leachate level monitoring points will be monitored by the 'Scada' system and will provide continuous data on leachate levels within the waste body.

#### **4.3 Emissions to Surface Waters**

Currently drainage from the site of the proposed extension to the White River is via two small streams running through the site which upon reaching the lowlands form drainage ditches. As a result of the low permeability of the soil small springs and seepages are common (E.I.S Section 3 Appendix I). These drains will be diverted through the existing interceptor drain located in the area between the existing and proposed landfill areas.

Section 2.2.11 of the EIS states that surface water run-off will be generated mainly from the rainfall running off the side slopes of the landfill and from paved areas.

Due to a major pollution incident in May 2004 leading to a significant fish kill in the White River I recommend that continuous monitoring of Electrical Conductivity in conjunction with pH and Temperature be undertaken at the outlet of the storm water settling ponds. A proposal for the provision and maintenance of the continuous monitoring equipment shall be submitted to the Agency within three months of the date of grant of the licence, see Condition 6.8.3. As a minimum requirement daily monitoring of the ammonia levels at the inlet and outlet to the water settling ponds shall be required in the interim, as per *Schedule C Control & Monitoring*.

#### **4.4 Emissions to ground/groundwater**

Based on site investigations the overburden is composed mainly of deposits of peat, silt and clayey sand and clayey gravel. With regard to emissions to groundwater the information

provided (including the EIS) concentrated on the fact that there is a thick layer (varying between 5–30m across the proposed site) of low permeability subsoils underlying the proposed site. This is advantageous in that it;

- a) Provides protection to the underlying groundwater resources because the subsoils available at the site can be engineered to a low permeability, and
- b) It provides a source of a large quantity of clay, which the applicant proposes will be used for essential engineering works on-site. The EIS refers to the fact that 475,000 m<sup>3</sup> of excavated material will be generated from the construction, of this 190,000m<sup>3</sup> will be used in permanent and temporary capping with the remainder being utilised in screening/buffer works.

The 1995 Groundwater Protection Scheme for County Limerick and site specific data determine an extreme to high vulnerability rating and the DoELG, EPA, GSI Groundwater Protection Response Matrix for landfills suggest a resource protection classification of R2<sup>1</sup> which allows for the development of a landfill site subject to guidance outlined in the EPA Landfill Design Manual or conditions of the waste licence. The EIS considered these requirements to conclude that the site is suitable for development as an engineered landfill (as per Landfill Directive). Condition 3.19 provides for liner design as per the Landfill Directive (1999/31/EC).

#### **4.5 Excavation and Management of Soft Materials**

Design criteria for the formation level of cells will necessitate the excavation and stockpiling of peat within the landfill footprint (Volume 2, EIS). There is limited information provided in the EIS on the proposed measures for dealing with this material. The material shall be stockpiled with graded banks, these banks shall be vegetated immediately to promote surface run-off. The topsoil heaps shall be limited to a height of no more than 3m and associated excavation works shall be controlled by Schedule D (Specified Engineering Works) and Condition 3.17. Condition 10.7.2 specifies the location of any stockpiles should take account sensitive receptors i.e. stockpiles should be situated away from drains and other surface water drains. Overall the position of any stockpiles will need to be peripheral within the landfill footprint and should not be imposed on previously filled cells, since these cells require final capping and gas extraction.

#### **5. Cultural Heritage, Habitats and Protected Species.**

No features of archaeological or cultural heritage shall be impacted on by the development which is located in a largely agricultural zone.

#### **6. Waste Management, Air Quality and Water Quality Management Plans.**

The Waste Management Plan for the Limerick/Clare/Kerry Region was adopted in September 2001. In the plan, Gortadroma landfill is named as the only operating landfill serving the Limerick region and it is also stated that recycling facilities will be provided at the landfill.

#### **7. Environmental Impact Statement**

I have examined and assessed the EIS and am satisfied that it complies with the requirements of the EIA and Licensing Regulations. The Agency responded to an enquiry from An Bord Pleanála on 25<sup>th</sup> January 2005.

#### **8. Compliance with Directives and Regulations**

Since the receipt of application, the Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) were issued which specify requirements in order to comply with the LFD.

Article 12(1) of the regulations requires the application to be compliant with Annex 1 of the LFD, and requires such financial provision having regard to the provisions of Articles (7)(i) and (8)(a)(iv) of the LFD. LFD Annex 1 aspects in the application were compliant. The financial provision aspects are written into the RD under Condition 12. The facility if managed and operated in accordance with the attached recommended decision will comply with the requirements of the Landfill Directive (1999/31/EC).

#### **9. Compliance Record**

Since the granting of licence Reg. No. 17-2 the Agency has issued one non-compliance in relation to the discharge from the storm water settling ponds to the White River which may have resulted in a major fish kill. The RD recommends continuous monitoring of Electrical Conductivity, pH and Temperature shall take place at the outlet of the storm water settling ponds as per Condition 6.8.3.

#### **10. Submissions**

Eight valid submissions were received in relation to this application. The contents of the submissions have been taken into consideration in the making of this recommendation and the drafting of Conditions in the Recommended Decision. In this context I wish to advise that the licensee is required to control all emissions from the facility including leachate, landfill gas, odours and dust in order that these emissions will not cause environmental pollution. Ongoing monitoring of emissions are required under Condition 6.1 and Schedule C of the Recommended Decision. Condition 5.6 of the Recommended Decision charges the licensee with ensuring 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. These items and the RD overall ensure that the landfill shall be controlled so as to prevent environmental pollution.

The Submissions are detailed in Appendix 1 of this report.


#### **11. Charges**

Charges have been set by OEE as of January 2005, I am satisfied that the Recommended Decision as written does not require extra reporting, monitoring etc. and therefore no extra charges are required.

#### **12. Recommendation**

All the documentation submitted in relation to this application has been considered. I am satisfied that the conditions set out in the Recommended Decision will address all emissions from the facility and will ensure that the carrying on of the activities in accordance with the conditions will not cause environmental pollution. I recommend that the Recommended Decision be issued subject to the conditions and for the reasons as drafted.

Signed: 

 Breen Higgins, Inspector  
Office of Licensing and Guidance

Dated: 5/12/05

#### **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 1996-2003.

## **Appendix 1: Submissions**

The main issues raised in submissions are summarised below and where appropriate under various different headings. However, the original submission should be referred to at all times for greater detail and expansion of particular points.

### **Submission 1 – Abha Bhán Fishing Club**

The Abha Bhán Fishing Club wrote to object to the proposed extension of Gortadroma Landfill due to the current amount of treated effluent allowed into the Abha Bhán river, which it says is dangerous to the aquatic environment.

#### **Response**

At present a restricted level of treated leachate is being discharged to the White River under 150 times dilution. By maintaining this level of dilution and adhering to the ELV in the RD the discharges shall be in line with those for Salmonid waters and therefore shall pose no risk to the flora and fauna of the White River. I should add that the issue of the discharge of treated leachate having a deleterious impact on the receiving waters was dealt with in some detail in last review of this licence. Storm water had previously been discharged to the White River, however, following the fish kill of 2004 this discharge has ceased. Any resumption of the discharge will be subject to remedial works on the site and an improved management system being put in place for the monitoring and control of the storm water discharges.

### **Submission 2 – Gortadroma Action Group (GAG)**

GAG submitted a three page document consisting of a general introduction and a number of specific points under the headings of:

- (a) Legislation,
- (b) The Process of Preparing the Environmental Impact Survey and
- (c) Recommendations.

#### **(a) Legislation:**

- This extension is not provided for in the Council's development plan nor in its proposed development plan
- The extension is going to exceed the total laydown area of the present area by a factor of two
- The Environmental Impact Survey (EIS) is defective in that it does not examine other possible sites
- The Council argues that they followed guidance given in the government policy document of 1998, *Changing our Ways*. The document urges that extension of existing facilities be undertaken if the original location was correctly located in the first instance. GAG argues this not to be the case.
- The Council does not take account of the actual targets set out in *Changing our Ways*
- GAG expresses the opinion that evidence from the planning tribunal suggests that this application may be illegal under planning law.

#### **Response**

The vast majority of the points raised under the heading of Legislation are matters relating to the planning process and are yet to be decided upon by An Bord Pleanála. While the policy document *Changing our Ways* emphasises the need for a considerable change in the practice

of waste management it is also recognised that waste disposal capacity for residual waste is a requirement for the short to medium term. Limerick County Council in formally adopting the Waste Management Plan for the region have reaffirmed their commitment to diverting the maximum quantity of waste away from landfill in accordance with national policy. The Agency considered the site location on environmental grounds in determining the original waste licence application for which a licence was granted and details of site selection in the context of this application are also included in the EIS which I am satisfied complies with the EIA and Licensing Regulations.

**(b). The process of preparing the EIS:**

GAG deems the EIS to be defective in several ways and states that it glosses over difficult points and is being used to further the Council's objective of foisting another 20 years of dumping activities on the members of the local community. GAG recommends that the Agency consult the transcript of the planning application public hearing in order to assess the deficiencies of the EIS and that L.C.C should submit a *full and proper* EIS. The group further suggest that the Agency treat the application as a new facility to be located beside a smaller one rather than a review.

**Response:**

The EIS was examined as part of the licensing process and the Agency acknowledged that it complies with the requirements of the EIA and Licensing Regulations in the Article 14(2)(a) letter to the applicant on 08/03/05.

**Submission 3: Margaret Hayes, Carnagh, Ballyhahill, Co. Limerick.**

The submission is general in nature and points to problems of flies, gas and traffic in the area being an on-going problem.

**Response:**

Condition 5.6 of the Recommended Decision states that '*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.*' In addition the installation and maintenance of a system for the flaring of landfill gas, as per Condition 3.26, should assist in achieving BAT for the facility.

**Submission 4: Donal, Maura and Josephine Donaher. Monemohill, Ballyhahill, Co. Limerick**

The submitter lives in the general environs of the proposed development. They have experienced nuisances from the operation of the existing facility including methane gas, odours, inadequate bird control, groundwater pollution, loss of amenities and general depopulation of the area. They express concern over the fish kill of May 2004 and express concern that Limerick County Council has not been prosecuted for the offence.

**Response:**

Many of the issues raised are of a similar nature to the Submission in 3. Waste Licence Reg. No. 17-2 was issued by the Agency to Limerick County Council on 29 September 2003. Compliance with the Conditions of the waste licence are the responsibility of Limerick County Council, any issue arising from the non-compliance with conditions of the licence will be subject to the required enforcement action as deemed necessary by the Agency. Condition

6.8.3 of the RD requires that continuous monitoring of electrical Conductivity, pH and Temperature be undertaken at the outlet of the storm water settling ponds

**Submission 5: Kate O'Brien. Anaview, Kileline, Newcastlewest, Co. Limerick.**

The submitter expresses similar concerns to 4 above but also feels that the value of her property has been devalued by the proximity to the landfill. The submitter also expresses concerns that a gravel aquifer may be present in the area of the proposed development.

**Response:**

With regard to the value of property in the locality the specific issue is beyond the scope of the licensing process however the conditions of the Proposed Decision are such that the proposed development should not cause nuisance due to odour, vermin, birds, dust etc.

**Submission 6: Michael Costello Snr. & Jnr., Cahernagh, Ballyhahill, Co. Limerick.**

The submitter expresses identical concerns to those in 3 & 4 above. The submission also points to many issues which arose in the operation of earlier licences 17-1 and 17-2.

**Response:**

As above.

**Submission 7: Ms & Mr Connie & Stephen Kennelly. Monemohill, Ballyhahill, Co. Limerick.**

As above.

**Response:**

As above.

**Submission 8: Mr & Ms Patrick & Catherine O'Brien. Carnagh, Ballyhahill, Co. Limerick.**

As above.

**Response:**

As above.