

## INSPECTORS REPORT

**WASTE LICENCE REGISTER NUMBER:** 81-2

**FACILITY:** KTK Landfill, Brownstown and Carnalway, Kilcullen, Co. Kildare.

**APPLICANT:** KTK Landfill Ltd., Brownstown/Carnalway, Co. Kildare.

**INSPECTOR'S RECOMMENDATION:** That a Revised Waste Licence 81-2 be granted subject to conditions.

### (1) Introduction:

This report relates to an application for a Review of Waste Licence 81-1 for KTK Landfill, an existing privately owned and operated, specially engineered facility in a rural setting about 2.5 kilometres north-east of Kilcullen. The facility, comprising some 25 hectares, is in a sand and gravel quarry with waste disposal activities occurring in areas where the sand and gravel extraction operations have been completed. Filling is currently occurring in Phase 3 of the development and it is planned to complete filling of the facility by developing Phases 4 and 5.

The application for a review is to seek an increase in the maximum annual tonnage (tonnes per annum - tpa) allowable, from 220,000 to 275,000 tpa. It is recommended that the increase in the maximum annual tonnage sought be granted.

Commercial and Industrial wastes only, are accepted at the facility. Up to the 1<sup>st</sup> June 2001, the facility had accepted 370,452 tonnes of waste with an estimated 1,170,000 tonnes to be deposited prior to closure. As with the existing waste licence, the following wastes are specifically excluded from disposal at the facility: hazardous wastes (**other than asbestos waste classified under the EWC as 17 06 05\* - construction materials containing asbestos**), liquid wastes, sludges (**other than dewatered non-hazardous industrial sludge/filtercake with >25% solids**), vegetable matter, food stuffs and green wastes. The facility is constructed in accordance with the requirements of the Landfill Directive for Non-hazardous Landfills.

The classes of activity applied for by the applicant are those licensed under the existing Waste Licence:

#### *Waste Disposal Activities – 3<sup>rd</sup> Schedule*

**Class 1/Class 5.** - Relates to the landfilling of waste in lined cells.

**Class 11.** - Relates to the separation of certain types of waste and **Class 13.** relates to the storage of wastes quarantined/rejected after inspection prior to dispatch to an appropriately licensed disposal facility.

#### *Waste Recovery Activities – 4<sup>th</sup> Schedule*

**Class 3.** - Relates to recovery of metals from C & D Waste and **Class 4.** and **Class 13.** relating to the receiving, storage and reusing of inert construction and demolition wastes.

It is recommended that all the above activities, for which the applicant has applied in this application for a review of a waste licence, be licensed subject to the conditions outlined in the recommended Proposed Decision (PD).

**Appendix 1 contains site location maps and a layout plan.**

<b>Description of Principal Activity</b>	Specially engineered landfill, including the placement into discrete cells which are capped and isolated from one another and the environment.
<b>Quantity of waste (tpa)</b>	275,000
<b>Environmental Impact Statement Required</b>	No.
<b>Number of Submissions Received</b>	One
<b>Date application received</b>	16/07/01

**SITE VISITS:**

<b>DATE</b>	<b>PERSONNEL</b>	<b>PURPOSE</b>
09/08/01	Damien Masterson	Site visit and to check site notice

**(2) Amendments to the Existing Licence Requested.**

**(i). Increase in Maximum Annual Tonnage:** The existing Waste Licence, Ref. WL 81-1, issued 12/04/99 allowed the acceptance for disposal of a maximum annual tonnage of 220,000 tpa. As the increase in tonnage applied for does not represent an increase greater than 25% in the maximum annual tonnage of waste acceptable at the facility, an EIS is not required. The Local Authority were notified of the application for a review of the Waste Licence and have not made any comments or submissions (other than a Section 52 reply).

The application relates to the facility as defined in the existing Waste Licence and therefore the granting of a revised licence for the increase in tonnage will not result in an increase in the size of the landfill footprint or an increase in the total quantity of waste to be deposited over the lifetime of the landfill. It will result in a reduction in the lifetime of the landfill. The increased waste intake should not contribute significantly to the environmental impact of the facility. Therefore, it is recommended that the increase in the maximum annual tonnage sought be granted.

**(ii). Hours of Waste Acceptance**

The applicant applied for facility opening hours of 07:00 to 18:00 (Mon – Fri) and 07:00 to 16:00 on Saturday which would extend daily operational hours of the facility by an hour in the morning and extend the Saturday operational hours by two hours in the afternoon. It is recommended to grant the extension of operational hours. Therefore, *Condition 1.6.1.2* limits the hours of operation at the facility to between the hours of 7:00 a.m. and 6:00 p.m. on Monday to Friday inclusive and 7:00 a.m. and 4:00 p.m. on

Saturdays and *Conditions 1.6.1.1* limits the Hours of Waste Acceptance to thirty minute less than the hours of operation in the evenings.

**(iii). Amendment of Leachate Management Practices:**

The applicant has applied to amend on-site leachate recirculation practices such that leachate can be distributed from a water bowser to the landfill face. The applicant has not presented any assessment of the risk of aerosols arising from this practice and it is not considered best practice and therefore I recommend that this practice not be permitted. *Condition 5.10.4* of the recommended PD sets controls for the recirculation of leachate using the pipework and infiltration system and on-site pumping system which is currently approved under the existing licence. The application of leachate directly to the waste using a tractor and bowser is prohibited.

**(iv). Amendment of Waste Inspection Requirements:** The applicant requests that the requirement for waste inspections be amended such that all incoming loads of waste are inspected and documented at the landfill tipping face. *Condition 5.3* requires that all wastes be checked and documented at the working face.

**(v) Acceptance of Different Waste Types:**

The acceptance of the following non-hazardous wastes, specified in *Table E.1.4 Other Wastes* of the application is provided for under *Condition 1.4* of the recommended PD: ash and cinders; printing toner; non-hazardous filter cake and sludges >25% solids; glass bearing cake; ion exchange resins; and waste coating powders.

***Construction Materials containing asbestos***

The applicant has applied to accept approximately 3,000 tonnes per annum of bonded asbestos (construction based only) “*EWC 17 06 05 - construction materials containing asbestos*”. This material is currently classified as non-hazardous. However, *Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regard the list of wastes (2001/573/EC)* which shall apply from 1 January 2002 denotes this waste as follows “*17 06 05\* construction materials containing asbestos (<sup>1</sup>)*” (i.e. hazardous).

Article 6(c) of the Landfill Directive states that landfill for non-hazardous waste may be used for “*iii) stable, non-reactive hazardous wastes e.g. solidified, vitrified), with leaching behaviour equivalent to those of non-hazardous wastes referred to in point ii), which fulfill the relevant acceptance criteria set out in accordance with Annex II. These hazardous wastes shall not be deposited in cells destined for biodegradable non-hazardous waste.*”

The footnote in the Council Decision 2001/573/EC amending the Annex to Commission Decision 2000/532/EC states “*(<sup>1</sup>) As far as the landfilling of waste is concerned, Member States may decide to postpone the entry into force of this entry until the establishment of appropriate measures for the treatment and disposal of waste from construction material containing asbestos. These measures are to be established according to the procedure referred to in Article 17 of Council Directive 1999/31/EC on the landfill of waste (OJ L 182, 16.7.1999, p.1) and shall be adopted by 16 July 2002 at the latest.*”

In light of this, the recommended PD permits the continued landfilling of this material pending the establishment of measures for disposal of this material under the Landfill Directive. *Schedule A: Waste Acceptance* limits the tonnage of this waste to be accepted to 3,000 tonnes per annum. *Condition 5.8.2* of the recommended PD sets specific requirements for the disposal of this material including its placement into prepared bays or trenches double wrapped in heavy guage plastic and its immediate cover with 250 mm of suitable material and cover with a minimum 500 mm of suitable material at the end of the day. *Schedule D, Table D.7.1* of the recommended PD sets out requirements for quarterly monitoring of asbestos fibres. *Condition 5.8.3* requires the submission of procedures for the disposal of construction materials containing asbestos within one month of the measures being adopted under the Landfill Directive, and from the 16/07/2002, that construction materials containing asbestos shall only be disposed of at the facility if the disposal meets the requirements of the Landfill Directive, or any guidance published under Article 17 thereof.

**Industrial Non-Hazardous Sludges/Filtercakes:** The applicant applied to accept 13,750 tonnes per annum of industrial non-hazardous sludges/filtercakes with a solids content of greater 25% for disposal at the facility. Sludge is not permitted under the current waste licence. However, the type of industrial sludges applied for at a solids content of >25 % will have a consistency similar to other industrial solids and will not pose the handling problems associated with sludges of a higher moisture content. Therefore, *Condition 5.8.1* of the recommended PD provides for the disposal of industrial non-hazardous sludges/filtercakes with >25% solids.

**Tyres:** *Condition 5.4* of the recommended PD sets restrictions on the disposal of tyres giving effect to requirements of Directive 1999/31/EC regarding the Landfill of Waste.

### **(3) Facility Development**

#### Infrastructure

Existing infrastructure includes security and stockproof fencing, a car park area, facility offices, two weighbridges, haul roads and access roads to the cells, a wheelwash, a waste inspection area, leachate collection infrastructure and a leachate storage tank. The provision and maintenance of infrastructure at this facility is controlled by *Condition 3 Facility Infrastructure*.

#### Lining

The existing cells are lined to the standard set out for non-hazardous waste landfill in the Landfill Directive, *Council Directive 1999/31/EC*. *Condition 3.12* of the recommended PD setting out the requirements for the lining of future cells specifies requirements for the drainage layer and for a geotextile protection layer to be placed over the HDPE layer which is the current practice at the facility.

#### Landfill Gas Management

It is intended to progressively install passive gas vents within the facility. *Condition 3.14.1* requires an updated proposal on flaring of landfill gas.

### **(4) Waste Types and Quantities**

*Conditions 1.4 and 1.5* of the recommended PD restrict the waste types to be disposed of at the facility to Commercial and Industrial wastes. *Schedule A Table A.1 Waste Categories and Quantities* limits the quantity of waste to be accepted for disposal. As described above, hazardous, liquid, sludge (other than dewatered non-hazardous industrial sludge/filtercake with >25% solids) and putrescible wastes are prohibited. Only waste contractors with pre-arranged contracts are allowed access to the facility. The facility will not be open to the general public. A record of all inspections shall be maintained. All other waste shall be inspected at the working face.

## **(5) Management and Control of Emissions to the Environment**

The environmental impacts and associated mitigation measures associated with this facility were addressed in detail in the Inspector's Report which accompanied the Proposed Decision for the existing Waste Licence 81-1. Requirements for facility management and an Environmental Management System, for the management of leachate and the control of emissions to air (landfill gas, odour, dust and noise), surface water and groundwater and requirements for the progressive capping and final restoration and aftercare of the landfill in general reflect those set out in the existing Waste Licence. Monitoring locations and frequencies as specified in the relevant schedules of the recommended PD reflect the current monitoring regime as agreed with the Agency during the enforcement of the existing waste licence.

**Groundwater:** The underlying sand and gravel aquifer is classed as having extreme vulnerability but is not classed as a regionally important aquifer due to its limited areal extent. This facility is located adjacent to the existing Kildare Co. Council Silliot Hill landfill which is an unlined municipal landfill. The existing licence requires the monitoring of nickel, arsenic, selenium, barium, silver and zinc in groundwater. Arsenic, selenium and silver have not been detected at levels significantly above the detection limits in monitoring submitted to the Agency, to date. Therefore it is proposed to exclude Selenium and Silver from the monitoring requirements in the Revised Waste Licence. Arsenic, Nickel and Zinc will be retained as they are listed in the Water Quality (Dangerous Substances) Regulation, 2001 (S.I. No. 12 of 2001). It is proposed to include Barium as it has been detected.

Condition 6.5.2 of the recommended PD requires the licensee to submit to the Agency for its agreement groundwater monitoring trigger levels in accordance with the requirements of Directive 1999/31/EC (The Landfill Directive).

**Amendments arising from Sect 52 notice:** Kildare Co. Council have requested inclusion of conditions which were not required with the existing licence. These have been incorporated in *Conditions 6.6 and 12.4* and *Schedule C.4* of the recommended PD.

**Working face:** The applicant applied for an extended working face. This was previously agreed with the Agency through the enforcement of the existing Waste Licence due to the quantities of waste being placed daily and the fact that two steel wheel compactors operate at the working face. An extended working face has been provided for in *Condition 5.5.1* of the recommended PD.

**Conditioning Plan:** *Condition 11.4* of the recommended PD requires the licensee to submit to the Agency for its agreement by 16<sup>th</sup> July 2002, a Conditioning Plan for the facility as required by Council Directive 1999/31/EC on the landfill of waste.

**Landfill Gas:** *Schedule C.5* of the recommended PD sets Emission Limits Values for the Landfill Gas Flare and/or Utilisation Plant when installed after agreement with the Agency.

**Financial Provision:** *Condition 12.3* of the recommended PD requires the licensee to ensure the costs in the setting up, operation of, provision of financial security and closure and aftercare for a period of at least 30 years shall be covered by the price to be charged for the disposal of waste at the facility, giving effect to requirements of the Landfill Directive.

#### **(6) Waste Management, Air Quality and Water Quality Plans**

The Waste Management Plan (2000 - 2005) adopted by Kildare County Council on the 17th July 2000, was considered. The plan refers to the role of private operators in the management of waste in the Kildare region including the applicant's facility at Kilcullen. Kildare County Council are proposing to try and recover as much waste as possible by segregating the waste either at source or at its destination. They are also proposing the provision of a new engineered landfill to accept baled waste and an associated baling station. The Waste Management Plan also recognises the significantly increasing role of private sector involvement in the operation of waste disposal facilities in the County.

The Water Quality Management Plan for the Liffey Catchment area was consulted.

#### **(7) Submissions/Complaints**

One submission has been received in relation to this application.

**1. Dúchas (01/10/2001):**

*Dúchas state that they have no recommendations for the application.*

#### **(8) Reasons for the Recommendation**

I recommend that a revised waste licence, subject to conditions, be **granted** in accordance with the conditions recommended in the Attached Recommended PD.

In coming to this recommendation, I consider that the continued landfilling of non-hazardous waste in specified areas at the facility and the associated activities and works would, subject to the conditions of the recommended Proposed Decision, comply with the requirements of Section 40(4) of the Waste Management Act 1996.

Signed: \_\_\_\_\_

Dated: \_\_\_\_\_

Damien Masterson  
Inspector,  
Environmental Management & Planning

**APPENDIX I – SITE LOCATION MAP & LAYOUT PLANS**