

## INSPECTORS REPORT

**DRAFT PD REGISTER NUMBER 156-1**

**Applicant: KTK Sand and Gravel Ltd.**

**Facility: Kimmeens, Ballymore Eustace, Co. Kildare**

**Inspector's Recommendation: The licence be granted subject to conditions.**

### (1) Introduction

The application is for the restoration of a disused sand and gravel quarry using commercial and industrial wastes and construction and demolition materials. This is a greenfield site and the proposed PD complies with the Landfill Directive. The applicant proposes to install a fully engineered lined landfill with leachate and gas collection systems. The area enclosed by the facility boundary is 15.6 ha and the footprint of the landfill is 10.1ha. An EIS was submitted with the application. The proposed facility is located within 500m of Ballymore Eustace village. Within a 500 m radius of the facility there are 29 residences and a national primary school. The nearest residence is 25 metres from the site boundary. The River Liffey is within 60m of the southern boundary of the facility and a 1600mm Dublin Corporation water main runs along the eastern boundary of the facility.

A location map and layout plan are attached in Appendix I together with a number of aerial photographs of the site.

<b>Quantity of waste (tpa)</b>	242,000
<b>Prescribed date for application</b>	1/05/97
<b>Application received</b>	15/06/01 (see note 1)
<b>Environmental Impact Statement Required</b>	Yes
<b>Number of Submissions Received</b>	42

Note 1: The proposed facility is a new facility.

### SITE VISITS

<b>Date</b>	<b>Observations</b>	<b>Personnel</b>
20/06/01	Site notice compliant	Ted Nealon
14/08/01	Site visit	Kevin McDonnell

### (2) Facility Development

The applicant purchased the site as a disused sand and gravel quarry in March 2000. The lands have planning permission for reinstatement and landscaping which hadn't been completed. There was also an estimated quantity of 50,000 tonnes of illegally dumped waste on the premises at the time of purchase. The applicant removed all waste to KTK Landfill in Kilcullen, and cleared the site stockpiles and excavations in order to produce a clear, level site. The proposed landfill will consist of two cells. The floor of the cells is at 122mOD and the maximum height of compacted waste proposed is to be 150mOD. Conditions 4.1 and 4.2 require the applicant to submit a revised restoration plan to tie in with the surrounding landscape. Condition 4.1 also requires the applicant to consult with both the local authority and the local community when drafting the revised restoration plan. My main concern in this

regard is that the applicant was proposing to create a new feature hill at the western end of the landfill which would serve as a lookout point over the Liffey valley. The development of a lookout point for the Liffey valley is mentioned in the County Development plan, but I would like the details on both this point and the restoration plan to be discussed with the local authority and community representatives.

The facility has a proposed lifespan of 6-7 years with a waste intake of 1,200,000 tonnes for disposal and 685,000 tonnes of restoration materials.

The installation of all infrastructure at the facility is controlled by Condition 3. Condition 3.12 requires the licensee to install a composite liner with the base of the landfill sloping away from the River Liffey so that the leachate collection drains are on the further most boundary from the River Liffey. Leachate can be re-circulated on site and/or tanked off site to Athy waste water treatment plant for disposal. The applicant proposes to use the existing silty clay materials on-site for the construction of the compacted clay layer (CCL). The test results provided in the EIS indicated that the on-site clays will have a coefficient of permeability of less than  $1 \times 10^{-9}$  m/s as required by the Landfill Directive. The applicant has calculated a requirement to import up to 85,000t of soil for restoration purposes over the lifetime of the proposed landfill.

Dublin Corporation have a water main along the eastern boundary which crosses the main access road to the facility. In that regard, Condition 3.5 requires that a bridging structure of a type and design to be agreed with the Agency be installed to protect the water main prior to the commencement of any activities on-site.

The draft PD requires the licensee to install waste inspection and quarantine areas, weighbridge, wheel wash and a waste water treatment plant for any waste water arising on-site.

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

The waste types to be accepted at the facility for disposal are commercial and industrial wastes with the majority of the wastes comprising of cardboard and card. Due to the dry nature of this waste, it is considered appropriate to re-circulate the leachate. Condition 11.3 of the draft PD also requires the licensee to look at the feasibility of recovering some of these wastes. Condition 5.2 and Schedule A control the types of waste to be accepted at the facility with the total annual waste acceptance of 242,000 tonnes. No vegetable matter wastes, food stuff wastes, hazardous or liquid wastes or green wastes are to be accepted at the facility. Sludges from the treatment of drinking water or water for industrial uses can be accepted at the facility.

Waste can only be accepted at the facility for disposal between the hours of 6.30am to 8.15am and 9.15am to 5.00pm Monday to Friday inclusive during school term and 7.30am to 1.00pm on Saturdays. Outside of school term, the opening hours shall be 7.30am to 5.00pm Monday to Friday inclusive. The reason for these hours is the proximity of the rear gate of the local primary school which is 150 metres from the entrance to the facility.

### **(4) Emissions to Air**

Noise emissions are limited by Schedule C of the draft PD. The main noise impact can be attributed to activities on site. However, due to the screening effect of the earth banks and naturally formed banks around the site, noise levels measured at the noise sensitive locations were below the 55dB(A) limit. There are 13 houses and a national primary school within 250 metres of the site boundary. The site boundary is approximately 150 m from the National

School. At this sensitive location the background noise was reported as 35  $L_{A90,T}$  dB(A) with levels in excess of 55 dB(A) measured due to road traffic on the R411. The site activities are not expected to impact on the school as the actual facility site is approx 300 metres north of the school. The nearest house is on the southern boundary of the facility and is 25m from the site boundary. Noise measurements at that location returned a daytime  $L_{A90,T}$  dB(A) of 35 and a nighttime value of 37. The main sources for noise was from the traffic on the road. The predicted noise levels at the noise sensitive locations (school and houses) was estimated to be 39dB(A) during operations and rising to a maximum of 44 dB(A) when compaction equipment is operating at the surface of the void during completion. Condition 6 and Schedule C limits noise and dust emissions.

The Draft PD requires that both odour and  $PM_{10}$  are monitored biannually.

Landfill gas is controlled by Condition 8 and Schedule D which require that gas monitoring boreholes be installed at 45m intervals around the perimeter of the landfill area and also within the the landfill area.

#### **(5) Emissions to Groundwater**

The groundwater quality in the area has been assessed to be good quality potable water. The site geology consists of the Tipperkevin bedrock which has been classified by the Geological Survey of Ireland (GSI) as a poor-aquifer with an overburden consisting of silty clays and limestone derived gravel and sands. The silty clays vary in depth from 8 metres to 12.4 metres across the site. The applicant is proposing to excavate the gravels and use the silty clay as the formation material for the compacted clay layer in the landfill lining. A high permeability drainage layer surrounding and beneath the proposed landfill liner will minimise impacts on the static water level in the perimeter of the landfill area. Groundwater flow is southwest towards the River Liffey. The proposed site is downstream of the Dublin Corporation reservoir at Blessington. Condition 6 requires that there are no direct discharges to groundwater. An engineered lined landfill will protect the groundwater under the landfill.

The wheel wash will drain into the landfill. All fuel stored onsite will be contained using a mobile bunded unit within the lined landfill. The site vehicles and plant will be parked on a concrete hardstanding which will drain via an oil interceptor to a soakaway. Foul water from the site office and canteen will be piped to a treatment system and the treated effluent discharged to ground via a percolation area as per Condition 3.10. The groundwater monitoring regime is specified in Condition 8.7 and Schedule D.

#### **(6) Emissions to Surface water**

Surface water management is controlled by Condition 3.16. There are no direct surface water emissions from the site. All surface water runoff from the proposed roads and hardstandings will be directed via a surface water pond to a silt settling tank and oil interceptor before discharge to a soakaway or piped discharge point. The surface water pond will require monitoring for conductivity, pH and TOC prior to discharge as well as a penstock to prevent discharge should monitoring indicate contamination of the surface water. Schedule D also includes the surface water parameters required under the Landfill Directive. Roofwater will be allowed to drain into the ground via conventional soakaways. Emissions to surface water are controlled by Schedule C.

#### **(7) Other Significant Environmental Impacts**

Leachate will be collected on site and recirculated on lined cells and/or tankered off-site to Athy Waste Water Treatment plant.

The applicant currently has a waste recovery permit for the site from Kildare County Council (09/2000) but isn't carrying out any recovery activities at present.

The applicant is proposing to bring in the waste in modified rigid body trucks (circa 20 tonne). These will be completely enclosed and the waste will be loaded into them using a compactor machine. This will minimise the number of vehicles and the potential dust and litter on the surrounding roads.

The Kildare County Development Plan (1999) designates Ballymore Eustace with a "special village" status. In this regard, it is the county's policy that all new developments will conform to the overall special amenity character and quality associated with these villages. It is also the council's policy to encourage amenity and environmental improvements to these villages. The applicant proposes to develop the restored site as a sports amenity for the area (soccer, GAA and tennis courts complete with changing rooms). In order that the special village status is addressed, the draft PD requires the applicant to submit a revised Restoration and Aftercare Plan (Condition 4) after consultation with both the Local Authority and the local communities.

#### **(8) Waste Management, Air Quality and Water Quality Management 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 Applicants other facility at Kilcullen (Ref. 81-1). 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. There is no reference to the applicants site (the application was submitted to the Agency after the completion of the Kildare Waste Management Plan).

The Water Quality Management Plan for the Liffey Catchment area was consulted. The requirement to protect the waters of the Liffey catchment was recognised and controlled through Conditions 3, 6 & 8 of the proposed PD.

#### **(9) Submissions**

Forty two submissions were made in relation to this application.

There were a consistent number of themes to the majority of these submissions and as such I have grouped the submissions under these themes and dealt with them in that manner below. Other issues raised in the submissions are dealt with subsequently. The themes were as follows:

1. Traffic: according to the submissions, there would be a significant increase in the traffic on the local roads and through Naas.

**Response:** In the main, traffic issues are dealt with through the planning process. However, the opening hours prohibit waste acceptance at the facility between 8.15am and 9.15am i.e. to allow for local traffic to use the roads more easily and to facilitate access to the National school. Also the applicant stated that he would be using specially designed vehicles to minimise the traffic impact (see Section 7 above).

2. Pollution of the river Liffey

**Response:** Condition 3.12 requires an engineered liner to be installed and requires that the landfill floor be sloped away from the River Liffey for leachate collection. This will require that the leachate collection pipes be located on the Northern side of the landfill away from the River Liffey. Condition 5.12 requires that the maximum head of leachate with respect to the base of the cells in the landfill be restricted to one metre. Condition 3.17 prohibits any direct discharge to ground water and also requires the licensee to submit 4 groundwater data sets prior to waste acceptance so that trigger levels can be determined as per the Landfill Directive. Condition 8.9 requires a surface management system to be installed at the facility and that all surface water be monitored continuously for conductivity, pH and TOC prior to discharge.

3. Location of the proposed facility with regard to the existing National School

**Response:** The facility entrance is located approximately 300 metres from the main entrance to the local primary school entrance, and 150 metres from the rear entrance to that school. By restricting the waste acceptance hours between 8.15 and 9.15 am during school term (Condition 1.6) the traffic impact on the school should be minimised. It should be noted that there was a sand and gravel extraction facility at this location for over 30 years with an equivalent number of truck movements.

4. The applicant is not a fit and proper person to run this facility.

**Response;** The applicant was assessed under the Waste Management Act and was deemed a fit and proper person for the purposes of this application.

5. Ballymore Eustace will lose its special village status by virtue of the location of this landfill.

**Response:** The proposed facility will be a modern engineered landfill. From discussions with Kildare County Council, the village status is determined by the planning department of Kildare County Council and can only be changed by them – not by a nearby activity. Also the facility is located outside the development boundary of Ballymore Eustace village. Condition 4 of the proposed PD requires that a revised Restoration and Aftercare Plan be submitted after consultation with both the Local Authority and the local community. I am satisfied that the issue of the village status of Ballymore Eustace is best addressed under the County Development Plan.

6. Odours, noise and dust from the facility will impact on the residents

**Response:** Condition 7.1 of the licence requires the licensee to ensure that vermin, birds, mud, dust, litter and odours do not give rise to nuisance. Condition 8 and Schedule D requires that odours and PM<sub>10</sub> are monitored biannually and Condition 6.1 and Schedule C sets an emission limit value for dust and noise emissions from the facility.

**Other submission issues were**

7. A submission was received from the Water Division of Dublin Corporation in relation to the 1600mm diameter watermain at the Northern and North Eastern end of the site. The concerns of Dublin Corporation were in relation to the proximity of the leachate holding tank, waste inspection areas and gas management compound with regard to the water mains. They also had concerns regarding the bridging structure to access the site, sampling points along the pipe line and the re-location of an overhead ESB line into a duct in the watermain wayleave.

**Response:** Condition 3.5 requires the licensee to install a bridging structure prior to waste acceptance. The applicant must consult with Dublin Corporation prior to the Agency agreeing on a design for the bridge. Condition 3.13 requires revision of the leachate management plan to take into consideration the issues raised in the Dublin Corporation submission. Both the waste inspection / quarantine areas and the ducting of the ESB lines are Specified Engineering Works and as such have to be agreed with the Agency. This allows the Agency the opportunity to consult with either Dublin Corporation or the ESB as necessary. Schedule D of the Draft PD requires the licensee to install gas monitoring boreholes at 45 metre intervals around the perimeter of the landfill. These boreholes may be used as additional water monitoring boreholes as per the Dublin Corporation submission.

8. One of the submissions raises a number of points regarding the application and quotes from the EPA Landfill Manuals – Manual on Site Selection (2<sup>nd</sup> Draft). In that submission, issues are raised regarding public consultation, site selection, planning issues and leachate containment.

**Response:** The majority of the issues raised in that submission relate to planning and legal issues. With regard to leachate management and containment, Conditions 3.12, 3.13, 5.12 & 6.6 control and regulate the management, handling and disposal of leachate from the facility.

9. The Ballymore Eustace Trout and Salmon Anglers' Association sent in a detailed submission against the proposed facility. The issues raised were concerned with traffic issues, planning permission, the Dublin Corporation water mains, human health quoting the UK Dept of Health report concerning populations near landfills, and impact on the River Liffey.

**Response:** The road traffic issues and planning permission are issues considered best addressed by the planning authority. The water mains issues have been addressed under Response to issue no. 7 above.

The human health issue refers to a UK report by The Small Area Health Statistics Unit released earlier this year (no date given). The draft PD is for a fully engineered and managed landfill for non-hazardous commercial and industrial waste. The Conditions and Schedules of that PD control the impact of the facility on the environment to the best available standards. Adherence to the requirements of the draft PD will ensure that the facility does not significantly impact on the environment including the River Liffey.

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

It is recommended that a licence be granted for Classes 1, 5, 11, and 13 of the Third Schedule and Classes 3, 4, 11, and 13 of the Fourth Schedule as applied for in the application. In coming to this recommendation, I consider that these activities 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: \_\_\_\_\_

Kevin McDonnell, Inspector.  
Environmental Management and Planning.

**Appendix I**  
**Location Map, Layout Plan & Aerial Photographs**