

## INSPECTORS REPORT

### WASTE LICENCE REGISTER NUMBER 141-1

<b>APPLICANT:</b>	<b>Cork Corporation</b>
<b>FACILITY:</b>	<b>Beaumont Quarry</b>
<b>RECOMMENDATION:</b>	<b>That a licence be granted subject to Conditions</b>

#### 1. Introduction

Cork Corporation has applied to landfill inert waste (soils and subsoils) at Beaumont Quarry. The site is a disused limestone quarry and is located between the residential areas of Ballintemple and Ballinlough in Cork City. The area covers approximately 3.5ha and is zoned for "Public Open Space" in the Cork City Development Plan Review (1998). The quarry is bounded on three sides by vertical or near vertical rock faces. The Beaumont Caves are located to the east of the site and extend in a southerly direction away from the area to be landfilled. Cork Corporation intend to turn the derelict quarry into a landscaped amenity park in accordance with the City Development Plan Review (1998). At present, the periphery of the site contains portacabins for personnel working on the Cork Main Drainage project.

#### Site Visits:

<b>DATE</b>	<b>PURPOSE</b>	<b>PERSONNEL</b>
13 <sup>th</sup> July 2000	Check site notice	B. Donlon
28 <sup>th</sup> August 2000	Check site notice	M. Henry
1 <sup>st</sup> March 2001	Site visit	S. Kennelly

#### General Information:

<b>Quantity of Waste (tpa)</b>	125,000 max. in any one year
<b>EIS required</b> <sup>Note 1</sup>	Yes.
<b>Number of Submissions received</b>	0

Note 1: The waste licence application and the accompanying EIS were assessed as being compliant with the Regulations.

#### 2. Facility Development

It is proposed that the quarry be filled with inert excavated soil material which will be subject to strict waste acceptance criteria. It is estimated that the landfilling will take no longer than three years.

The site will be developed in a phased manner. There will be c. 54 truck movements per day to and from the facility. There will be no leachate collection and any surface water runoff will drain or be pumped to a stormwater settling pond with an overflow to an existing combined sewer. Minor amendments to the site preparatory works (formation levels- Condition 3.12) are required to be made to take into account the details of a cordon to be erected around the entrance to the Beaumont caves.

Each cell will be permanently capped and grassed to a specification appropriate for inert waste. The facility will be restored to a terraced amenity park with landscaped gardens and exposed rock faces. The stormwater settling pond will be transformed into a pond. Infrastructure will be removed from the site on completion of the filling.

Site infrastructure will include security fencing, a hard-standing area with weighbridge, site office and wheelwash, a stormwater settling pond with a gravity discharge to the existing combined foul sewer system, a waste inspection and quarantine area and temporary ramps for vehicle access to the quarry floor.

### **3. Waste types and Quantities**

It is proposed that the site will be filled with inert excavated soil material with most of the material being sourced from the Cork Main Drainage and other infrastructural projects. Criteria are set out in Schedule F for the acceptance of wastes. A total of 250,000 tonnes of this material will be deposited at the site. The maximum to be deposited in any one year will be 125,000 tonnes.

### **4. Waste Acceptance and Material Handling**

The general characterisation of the waste will be based on the three level hierarchy set out in the EU Directive on the landfill of waste. The material will be sampled in-situ or following excavation at source, typically at approximately 50m intervals and accepted subject to strict waste acceptance criteria (Schedule F).

The liner on the base and side walls will consist of a mineral layer of greater than or equal to 1m in thickness and a permeability  $k \leq 10^{-7}$  m/s (or equivalent) in accordance with the EU directive on the landfill of waste.

The waste material will be deposited in layers of  $\leq 0.3$ m thickness and the total thickness of the layers deposited on any working day will not exceed 0.5m. The material will be compacted by a compactor or bulldozer making a minimum of three passes over the material.

### **5. Emissions to Air**

- **Noise**

The nearest noise sensitive location is St. Gerard Majella's Terrace where there are five terraced residences (50m from site entrance). A temporary screening berm is to be erected at the northern boundary of the site in order to reduce the noise emissions at this location during the construction phase. The exact nature and location of the berm is to be agreed in advance with the Agency and prior to any works taking place. Facility operations will take place between 8am and 6pm Monday to Friday. Noise emission limit values have been set at 45dB(A) night time and 55 dB(A) daytime.

- **Dust**

Dust deposition monitoring is to be undertaken at six monitoring locations around the site with the emission limit value set at 350mg/m<sup>2</sup>/day.

- **PM10 and Odour Monitoring**

PM<sub>10</sub> and odour monitoring are also required at two locations around the site.

## **6. Emissions to Groundwater**

Groundwater flow is described in the EIS as being in a north-easterly direction and the aquifer (Carboniferous, karst limestone) is described as being regionally important. Baseline groundwater monitoring was carried out at four wells, one upgradient (MW-1) and three downgradient (MW-2, MW-2 and MW-4). The monitoring results demonstrated a poor quality groundwater with some List I (cyanide and mercury) and List II (copper, lead, nickel, and zinc) substances present in some or all of the wells sampled. The applicant has stated in the application that these levels are a result of fly-tipping in the area. Monitoring for these parameters is required as part of the groundwater monitoring programme for the facility. I am satisfied that the activity concerned (i.e. landfilling of inert waste (soils and subsoils)) will not cause environmental pollution or that any emissions from the disposal activity will not result in the contravention of any relevant standards. The houses in the area are on the main water supply and there is no domestic use of groundwater.

## **7. Emissions to Sewer**

The applicant has presented figures in the application to show that the combined Corporation sewer can accept the volume of runoff/contaminated storm water discharged from the stormwater settling lagoon at maximum flow to combined sewer.

## **8. Beaumont Caves**

The Beaumont Caves extend from the north east of the site in a southerly direction from the area to be landfilled (see Appendix 2). Under the conditions of the recommended Proposed Decision the integrity of the caves will be protected. They are to remain accessible and silting up of the caves is to be monitored. Locks will be installed at the cave entry points. On average there will be a rise of 10m across the site with the rise in level at the caves being approximately 3m above the current floor of the site. The entrance to the caves is another 3 to 4 m above this.

## **9. Submissions**

No submissions have been received on the application. However, before the application was submitted to the Agency, the applicant invited submissions from interested parties regarding the development and received replies from the Geological Survey of Ireland (GSI) and the Speleological Union of Ireland (SUI). The GSI suggested that the geology be featured in the final landscaping of the park and the SUI requested that the security and integrity of the caves be ensured.

The Proposed Landscape Plan submitted with the application shows exposed rock faces as features of the proposed park as suggested by the GSI.

The licensee is required to make arrangements with SUI regarding access to the caves (Condition 3.4).

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Signed: Sara Kennelly

Date: 19th July 2001