

## **INSPECTORS REPORT**

### **WASTE LICENCE REGISTER NUMBER 64-1**

#### **(1) Introduction:**

The facility consists of an existing municipal waste landfill located approximately 3km from Carrick-on-Shannon, Co. Leitrim. A location plan showing the outline of the facility to which the application relates is provided in Appendix 1. The facility is bounded to the west by the T55 road leading from Carrick to Drumshambo. All local surface watercourses drain in a southwesterly direction towards the River Shannon. The site has been used for landfilling since 1965. The site is surrounded by a mixture of poorly drained pasture land and scrubland with some peat extraction. Current waste disposal activities occur on a 5.8 acre area. The nearest private dwelling is located approximately 140m from the southwestern boundary of the site. There are also private dwellings within 500m of the site to the east and north. Historically the site has been poorly operated, leading to generation of nuisances. This is primarily due to operational and waste acceptance/handling practices.

Condition 4.3 requires that site security measures be provided at the facility. There is a road works depot located within the facility and a security fence and gates are required to be provided between the road works depot and the active landfill area in order to control access to the waste acceptance area. Security fencing is also to be provided along the perimeter of the facility. Due to the limited future of the facility quantities of wastes involved, it is not deemed necessary to require a weighbridge. The applicant applied for the facility to be allowed to be operated on Tuesdays, Thursdays and Saturdays only.

There are no landfill gas or leachate management systems in place. Conditions 4.11 and 4.12 specify the works and actions to be completed by the applicant. The volume of leachate generated from the site was estimated to be 9,351m<sup>3</sup>/annum. Condition 4.14 requires the applicant to implement a surface water management plan.

There are no records of the volume of waste accepted at Carrick-on-Shannon landfill. Condition 5.4 requires the applicant to implement waste acceptance procedures at the facility. Condition 5.7 sets out the waste acceptance days and hours. Potential nuisances are controlled by Condition 6 – Environmental Nuisances.

The applicant proposed to encourage the establishment of two primary habitat types at the facility as part of the restoration plan, (i) open grassland/meadows and (ii) mixed woodland-type tree plantations. The objectives of the planting concepts and maintenance of the restored facility is to create a planting structure which will integrate the facility with the surrounding landscape and achieve biodiversity throughout the site. This proposal is required by Condition 8. The final contours of the facility shall not exceed 54mOD as proposed by the applicant. In their Art 16 response of July 7<sup>th</sup> 2000, the applicant stated that void space for only a further 4,000 tonnes remained at the facility. It is not proposed to extend the footprint of the waste at the facility. It is

calculated that it will take three years, at the permitted annual input of waste, to fully restore the facility.

An Article 16 notice was issued on July 2<sup>nd</sup> 1999. No response was received to this notice. On May 17<sup>th</sup> 2000 the Agency issued an Art 16 (4) reminder to Leitrim County Council to advise them to submit the outstanding information within 10 days after which period the Agency would continue with the processing of the waste licence application. None of the Article 16 information requested by the Agency was received from Leitrim County Council within the 10 days specified. Following subsequent correspondence with Leitrim County Council a response was received on July 7<sup>th</sup> 2000

<b>Name of Applicant</b>	Leitrim County Council
<b>Facility Name(s)</b>	Carrick-on-Shannon Landfill
<b>Facility Address</b>	Ballynamony, Carrick-on-Shannon, Co. Leitrim
<b>Description of Principal Activity</b>	Disposal on land of non-hazardous solid waste and municipal sewage sludge
<b>Quantity of waste (tpa)</b>	4,000
<b>Environmental Impact Statement Required</b>	No
<b>Date Application Received</b>	30/9/1998
<b>Number of Submissions Received</b>	Eleven
<b>INSPECTOR'S RECOMMENDATION</b>	The Proposed Decision as submitted to the board be approved.

#### **SITE VISITS:**

<b>DATE</b>	<b>PURPOSE</b>	<b>PERSONNEL</b>	<b>OBSERVATIONS</b>
27/10/98	Site Notice Inspection	E. Merriman	
23/06/00	Familiarisation with site and inspection as result of complaints received.	E. Merriman & K.Reynolds	Poorly run facility, no waste acceptance procedures in operation, inadequate control measures in place.

The classes of waste activities applied for by the applicant, and their description of those activities are set out below:

#### **Third Schedule**

Principal Activity:

*Class 1: Deposit on, in or under land (including landfill).*

This activity is limited to the landfilling of domestic and commercial waste including dewatered sewage sludge

Other Activities:

*Class 4: Surface impoundment, including placement of liquid or sludge discards into pits, ponds, or lagoons (possible future activity).*

This activity is limited to placement of liquid or sludge discards into pits, ponds, or lagoons.

*Class 13: Storage prior to submission to any activity referred to in a preceding paragraph of this schedule, other than temporary storage, pending collection, on the premises where such waste is produced.*

This activity is limited to storage of inert fill for use as on-site cover and capping material

#### **Fourth Schedule**

*Class 13: Storage of waste intended for submission to any activity referred to in preceding paragraph of this schedule, other than temporary storage, pending collection, on the premises where such waste is produced.*

This is limited to the temporary storage of refrigerators – CFC degassed on-site prior to on-site disposal, temporary storage of cars prior to collection for off-site crushing and recycling, temporary storage of glass bottles prior to collection for off-site recycling.

It is recommended that Classes 1 and 4 of the Third Schedule be refused due to evidence of environmental pollution of the groundwater and due to the breaching of environmental standards.

The applicant erroneously applied for Class 13 of the Third Schedule for the storage of waste prior to recovery. The Third Schedule relates to disposal activities only. The activity should have been included in Class 13 of the Fourth Schedule, which relates to recovery activities. It is therefore recommended that Class 13 of the Third Schedule be refused but that the activity be allowed under Class 13 of the Fourth Schedule.

It is recommended that Class 13 of the Fourth Schedule be granted for the storage for inert waste for restoration but not for fridges, metals and glass, as these will no longer be brought to the facility if it is closed as a landfill.

The applicant did not apply for a waste activity to cover the use of inert waste for restoration and therefore it is recommended that Class 4 Recycling or reclamation of other inorganic materials be granted to allow this activity. Otherwise the applicant will be allowed to store the material on the facility but not to use it for restoration.

<b>(2) Waste Types and Quantities</b>
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**Total quantities and types of wastes accepted by the facility are shown below.**

YEAR	NON-HAZARDOUS WASTE (tpa)	HAZARDOUS WASTE (tpa)	TOTAL ANNUAL QUANTITY OF WASTE (tpa)
1996	4,470	0	4,470
1997	4,470	0	4,470

The total quantities of waste “already deposited” at the facility and “to be deposited” (as specified in the application) are shown below.

	NON-HAZARDOUS WASTE (tonnes)	HAZARDOUS WASTE (tonnes)	TOTALS (tonnes)
“Already deposited” *Note 1	131,700	0	131,700

\*Note 1 – Figures as per application, 30<sup>th</sup> September 1999.

### (3) Emissions to Air

Emissions to air from the facility include landfill gas, odour and dust. Dust and landfill gas monitoring requirements are set out in Schedule D of the Proposed Decision (PD). Noise emission monitoring results clearly indicate that local road traffic is the primary source of noise in the area. The PD requires the applicant to comply with noise limits of 55L<sub>eq</sub>dB(A) (daytime) and 45L<sub>eq</sub>dB(A) (night-time) in addition to carrying out a noise survey on an annual basis.

### (4) Emissions to Groundwater

The facility is underlain by the Bricklieve Limestone Formation which is classified as a regionally important aquifer. The Quaternary geology of the area consists of glacial tills overlain by peat. The lateral extent of the overburden material is not uniform and is <5m in all of the logged monitoring wells, this therefore would indicate a High vulnerability rating for the aquifer.

Monitoring of the leachate indicates that a high column of leachate exists within the waste mass. It appears likely that the majority of leachate may be migrating laterally to the perimeter drains. However, due to the lack of any liner and the geology of the area, it is also likely that the leachate is in hydraulic continuity with the groundwater leading to a direct discharge of List I substances. Such a direct discharge is prohibited under the Water Pollution Act and the Groundwater Directive.

The applicant initially provided four groundwater boreholes around the site, only one of which penetrated into the limestone aquifer, which is upgradient from the landfill. A further eleven window sampling boreholes were provided, each of which penetrated the overburden (i.e. Peat or Till). The PD includes a requirement for the applicant to monitor five of the above mentioned boreholes, with three further boreholes to be provided: one in the groundwater inflow region and two in the outflow region from the site which extend into the bedrock aquifer underlying the site.

In response to a request by the Agency, in an Article 16 notice, for monitoring of the groundwater, the applicant only installed the shallow window sampling boreholes and did not monitor the groundwater in the regionally important aquifer. However, monitoring results from these boreholes show the presence of List I and List II substances in the shallow groundwater indicating environmental pollution and a breach of the environmental standards relating to groundwater. The applicant failed to provide information to allow an assessment of the impacts of the landfill on the regionally important aquifer and therefore I am unable to be satisfied that this facility is not causing environmental pollution or breaching environmental standards.

There are no groundwater abstraction wells within 500m of the facility.

#### **(5) Emissions to Surface Waters**

The facility has a network of surface water streams to the north and south of the facility. A perimeter drain surrounds the facility and merges with a network of land drains and ultimately discharges into the River Shannon approximately 2km to the south. Monitoring results taken downstream of the landfill (SW-5) indicate elevated BOD, COD levels, Ammonia-N, Chlorides, Sodium and Zinc have been detected at SW-5.

The applicant proposed to divert the surface water stream to the north away from the landfill and join up with the surface water network to the south of the facility. The perimeter drain would, as part of these works be isolated, and used for leachate containment.

#### **(6) Other Significant Environmental Impacts of the Development**

None.

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

Consideration was given to the Waste Management Plan for County Leitrim (1997-2001), the Draft Waste Management Plan for Connaught Region and the Water Quality Management plan for the Upper Shannon Catchment.

## **(8) Submissions/Complaints**

**Appendix 2 contains a list of all submissions received relating to the application to date. The dates received and the details of the individual, department, group or organisation making the submission are provided.**

**An overview of the submissions received in relation to the waste licence application is provided. This includes a summary of all issues raised in the submissions.**

11 submissions were received in relation to this application.

***Ground 1.** The generation of odours from the facility. Submissions were received from local residents commenting on the frequency and severity of odours generated from the facility and the significant impacts which such emissions have on day to day life.*

**Response:**

Condition 6 of the PD ensures that the generation of nuisances at the facility will be eliminated. Landfill gas will be collected and flared. The prohibition of non-inert wastes will also prevent odours.

***Ground 2.** The seasonal infestation of flies emanating from the facility is considered by local residents to be a nuisance factor and a health issue. Significant populations of flies arise from the facility during certain periods of the year, impacting on many of the private dwellings located around the facility.*

**Response:**

The restrictions on waste types should ensure that flies are no longer a problem. Condition 6 of the PD specifically addresses the issue of nuisances, including nuisances from flies.

***Ground 3.** Submissions received from a local residents group regarding the potential health risks associated with the facility, and number of media through which health impacts may be transported from the facility.*

**Response:**

Conditions 5 and 6 of the PD ensure that bird, fly, rat and vermin populations are prevented and controlled at the facility. By minimising these populations the media for transportation of adverse health impacts is minimised. The flaring of landfill gas will control airborne emissions while the implementation of leachate and surface water management systems will prevent the pollution of waters.

***Ground 4.** The continuous presence of birds on and about the landfill is considered by many of the local residents to be a nuisance. The presence of a large number of birds is causing spreading of litter, spoiling of properties and damage to agricultural feedstuffs.*

**Response:**

See response to Ground 1 and 3.

**Ground 5.** *The presence of rats and other vermin at the site is a concern of all local residents. Concerns regarding health, safety and agriculture are expressed by submitters.*

**Response:**

See response to Grounds 1 and 3.

**Ground 6.** *The quality of surface water from small streams and drainage ditches around the facility is a concern of local residents. The surface waters drain to the river Shannon, which is the source of drinking water for the local community. Potential impact of such waters on local agricultural lands is also a concern.*

**Response:**

Conditions 4.12 and 4.15 set out leachate management and surface water management plans respectively. The implementation of these plans shall ensure that the quality of surface water to the south of the facility will be in accordance with all relevant standards. Condition 9 and Schedule E require that a programme of surface water monitoring be implemented and maintained.

**Ground 7.** *The presence of litter around the site is an issue included in many submissions from local residents. Litter being generated by waste delivery, waste storage and fly tipping is considered a nuisance and an aesthetic concern to locals.*

**Response:**

See response to Ground 1. Condition 6 will address all these concerns.

**Ground 8.** *The nature and quantities of waste being accepted and handled at the facility was an issue included in submissions received. The shape of the landfill has increased vertically, a result of what submitters say is acceptance of greater tonnages of waste than stated in the licence application. The increased height of the landfill is a concern of locals as it creates a substantial “scar” on the landscape of the area. The waste acceptance and procedures on-site generate noise which is perceived by some local residents to be a nuisance. The practice of covering waste on a daily basis is rarely completed, thus giving rise to many of the nuisance factors.*

**Response:**

The nature and quantities of wastes to be accepted at the facility are restricted by Condition 5. Condition 8 sets out requirements for the restoration and aftercare of the facility, the restoration plan referred to in Condition 8 shall marry the restored facility with the surrounding facility. Condition 9.1 and Schedule D of the licence require that noise monitoring be carried out, and that the emission limits set be complied with.

**Ground 9.** *The security of the landfill is a concern of locals, as there is uncontrolled access to the landfill due to numerous breaches in the perimeter fencing.*

**Response:**

Condition 4.3 requires that security fencing be installed around the facility and it also ensures that there is no access to the facility unless supervised.

**Ground 10.** *The generation of landfill gas is included in submissions received regarding the facility. It is a concern as a potential for fires and public health impact.*

**Response:**

Condition 4.13 of the PD requires that a landfill gas management plan be agreed and implemented. Condition 9.2 requires that the applicant to monitor off-site migration of landfill gas.

**Ground 11.** *A combination of the above issues is deemed by locals to have led to a loss of amenity as the area surrounding the facility is an area used for leisurely walks and recreation, it is claimed that such activities are no longer possible due to the facility and associated nuisances and issues as outlined above.*

**Response:**

Condition 6 of the PD requires that nuisances as a result of the landfill and associated activities be prevented and minimised, this together with Condition 8 –Restoration and Aftercare shall ensure that the nuisance factor is minimised and the restored landfill will blend with the local environs.

**Ground 12.** *A submission was received from the North Western Health Board that complaints regarding mainly smell and fly infestation will continue to be received should the facility be kept open.*

**Response:**

See response to Ground 1

**Ground 13.** *A submission was received from Dúchas The Heritage Service which stated that they had no objection to the granting of a waste licence to the facility.*

**Ground 14.** *A submission was received from An Taisce, the submission stated that all measures should be taken to minimise and segregate wastes in the region, rather than dispose of wastes in landfill*

**Response:**

The Draft Waste Management Plan for the Connaught Region was given due regard during the application process, this plan sets out ways and means by which wastes are to be minimised in the future.



**Signed** \_\_\_\_\_

**Dated:**

**Name:** Kealan Reynolds

**APPENDIX 1**  
**LOCATION PLAN**

1. Drawing 2101026 (B2.1)

## **APPENDIX 2**

### **LIST OF PERSONS MAKING SUBMISSIONS**

- 1.