

INSPECTORS REPORT

WASTE LICENCE REGISTER NUMBER 132-1

APPLICANT: Mr David McSweeney

FACILITY: Lotamore landfill, Glanmire, Co. Cork.

INSPECTOR'S RECOMMENDATION: That the waste licence be granted subject to conditions.

(1) Introduction:

The application relates to a proposed landfill for inert construction and demolition wastes. Most of the proposed site shows the characteristics of a wetland and is what is referred to in the application as a 'quaking bog' – not a true bog but a wetland area. No civic amenity or recycling is proposed for the facility.

The proposed facility is for the sole use of the applicant who is involved in the construction and demolition business and the materials to be disposed of will come from various projects in the Cork area. The site has an estimated total capacity of 42,000 tonnes with a proposed filling rate of 14,000 tpa. Condition 5.14 requires the applicant to meet the waste recovery targets set out in the Department of the Environment Policy Statement 'Changing Our Ways' with regard to construction and demolition waste. For this reason the lifetime of the facility may extend beyond three years.

Appendix 1 contains a plan showing the basic layout of the facility. The proposed site is located 4.3kms northeast of Cork city along the 'Old Youghal Road' (R615) between Lotamore and Barnavara. The site covers an area of approximately 0.97 hectares.

Due to the presence of seasonal springs on site it is proposed to construct land drains to intercept the flow from these springs as shown in drawing no 98004-1 Rev. E and these shall drain to a drainage ditch on the northern side of the site. Additional drains will be constructed during the construction phase as and when required. This is provided for by Condition 4.16. Condition 4.7 requires a proposal for a combined waste inspection/quarantine area.

No synthetic lining system is required by this licence. Instead the requirement is for a mineral layer with a minimum thickness of 1m with a hydraulic conductivity less than or equal to 1×10^{-7} m/s or equivalent.

Only inert waste will be accepted for disposal at the facility consisting of: subsoil, topsoil, brickwork, stone, rock and slate, clay, natural sand and concrete. Stringent waste acceptance and characterisation procedures will be imposed by the licence. These will be subject to the requirements laid out in Schedule G of the licence (see G.1, G.2, G.3, and G.4).

No fuels or oils will be stored on site and all vehicle maintenance and refuelling will take place offsite at the applicant's company depot at Manahan Road, Cork and therefore no fuel storage areas are required. Condition 10.2 however requires that mitigation measures are in place in the case of a potential spillage at the site.

Potential nuisances are controlled by Condition 6.

Hours of operation are between the hours of 9.00a.m. to 5.30p.m. Monday to Saturday inclusive November to February, and between the hours of 8.00a.m. and 5.30p.m. Monday to Saturday inclusive from March to October.

The finished profile of the landfill will be as shown on Drawing no. 98004-1 Rev. E. The finished surface will be sown with grass.

Quantity of waste (tpa)	14,000
Environmental Impact Statement Required	No
Number of Submissions Received	8

DATE	PURPOSE	PERSONNEL	OBSERVATIONS
10/01/00	Site notice check	Maeve McHugh, Sara Kennelly	
29/08/00	Site visit	Maeve McHugh, Regina Campbell	Water samples taken by applicant.

(2) Waste Types and Quantities

Only 14,000 tpa of inert, non hazardous waste from construction and demolition facilities and surplus soil will be accepted at the facility.

(3) Emissions to Air

As there is no reason to suspect that putrescible wastes have been deposited at this site in the past, and in view of the strict waste acceptance procedures there will be no requirement for landfill gas monitoring.

Dust control measures to be adopted on site include the implementation of a speed limit, maintenance of hardstanding surfaces and water spraying. A low loader positioned on hardstanding will load plant for offsite removal for refuelling. In this way adjacent roads will be protected from dust nuisance (Condition 6.6).

The emission limits in Schedule F.1 for noise emitted by the facility have been set at day 55 dB L_{aeq} (30 minutes), and Night 45 dB L_{aeq} (30 minutes) at position N7.

Position N7 was chosen as this showed the highest noise levels when tested, the major component of which was attributed to passing traffic.

(4) Emissions to Groundwater/ Hydrogeology

The site is underlain by the Kinsale Formation – Cuskinny Member which comprises a sandstone with varying grain size characteristics. Subsoil geology, according to two trial pits dug on site consists of a gravelly clay.

The Kinsale Formation – Cuskinny Member is classified by the GSI as being a Locally Important Aquifer which is moderately productive only in local zones. Although the subsoils are clay rich they have a thickness of only 0-3m and therefore the vulnerability rating for the groundwater underlying the site is extreme. When slotted into the GSI groundwater protection response matrix for landfills the appropriate response is R2².

R2² suggests that a landfill is 'acceptable subject to guidance outlined in the EPA Landfill Design manual or conditions of a waste licence'. The GSI response also refers to the risk of leachate movement to high permeability zones and that special attention should be given to existing wells down-gradient of the site.

However some of the important factors influencing the risk to groundwater from the landfilling of waste are the nature of the waste itself and the composition of the leachate produced. As stringent waste acceptance procedures are applied by Conditions 5.2 and 5.3, and only inert, construction and demolition type wastes are to be accepted it is thought that the risk to groundwater caused by leachate is minimal. Condition 4.13 requires that the site be underlain by a clay liner. Conditions 4.17.2 and 9.7 requires that an inventory of existing beneficial users of groundwater in the area should be compiled as recommended in Attachments C6/H6 of the application and baseline water quality data obtained.

There is evidence of the presence of seasonal springs on site. Therefore surface water and groundwater control on site should be closely linked.

(5) Emissions to Surface Water

The land drains taking water from the seasonal springs on site will drain towards a drainage ditch towards the north of the site. The final surface profile for the site shows a 1/100 fall towards this drainage ditch. This drains to a tributary of the Glen River which joins with the River Bride in Blackpool and finally into the Lee at the city centre. Condition 4.16.6 requires an assessment of the need for a drainage settlement lagoon on site.

Analysis was carried out on surface water samples taken from four different locations one upstream and three downstream of the site to determine background water quality. There was little or no flow at the time, as the seasonal springs were not flowing.

Parameters tested were pH, conductivity, ammonia nitrogen as N, phenols, suspended solids, chemical oxygen demand and sulphate. No significant levels of any of the above parameters were found. pH values ranged from 7.6 – 8.1; conductivity 354 – 636 µS/cm; ammonia nitrogen as N from below detectable levels to 2.1 mg N/l; phenols from below detectable levels to 4 µg/l; suspended solids 12 – 39 mg/l; COD 25- 70 mg/l and sulphate below detectable levels in all but one sample which had a level of 44 mg/l.

(6) Other Significant Environmental Impacts of the Development

None

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

The Waste Management Plan for the Cork area makes no reference to this facility. No relevant air quality and water quality management plans exist.

(8) Submissions/Complaints

Eight valid submissions were made in relation to this application.

1. Submission from Abina Leahy received on 21/02/00

This submission contends that due to the hydrogeological conditions prevailing that the site is 'not suitable for dumping'. It states that biodegradable materials and materials from demolition works will present heavy metals to the aquifer in amounts which it will not tolerate and they contend that a full hydrogeological assessment should be carried out.

The residents in the local area do not believe that the area will be returned to 'green belt status' when the activity ceases and would prefer to develop the site as a wildlife refuge for wetland species.

It is also stated that a previous decision in the locality to refuse planning permission due to hazard created by unsighted traffic should be upheld in this case and that the social environment of a rural population being brought under increasing pressure by rapidly increasing urbanisation is a matter for the Agency to consider. The submitter states that many young couples are setting up homes in the area and that the site would provide a valuable asset for environmental studies for schools.

It is also contended that the applicant cannot have difficulty in disposing of his rubble as it could be used in roadworks and that the applicant is not a fit and proper person to control a waste facility.

The hydrogeological conditions prevailing on site, based on the evidence gained from two trial pits dug on site places the site in the extreme vulnerability category the

appropriate response for which is R2². As discussed above under section 4 this means that a landfill is 'acceptable subject to guidance outlined in the EPA Landfill Design manual or conditions of a waste licence'. It is felt that the conditions imposed by the proposed decision as regards waste types to be accepted and waste acceptance and characterisation procedures will be sufficient to protect the aquifer from damage caused by heavy metals. Biodegradable wastes will not be accepted.

The restoration and aftercare of the site will be controlled by Condition 8 and will be based on Attachment G of the application where the applicant states that the finished site will be sown with grass.

The Planning Authority is the body responsible for planning decisions. The issue of urbanisation is a planning issue.

As regards the importance of the site for environmental education the ecology report submitted as part of the application discusses the site in some detail and does state that the main habitat loss to occur due to the development will be the loss of wetland species. It also states that remnant bog habitats tend to have an ecology of significantly reduced importance. It also states that following discussions with the National Parks and Wildlife Service of Duchas and with the botanical recorder for the area it was conformed that due to the absence of species of conservation importance at this stage the site may be considered of limited local importance. Condition 4.3.1 requires the preservation of the mature hedgerow at the perimeter of the site.

Condition 5.14 requires that targets be met with regard to the recovery of construction and demolition waste. With regards to the question of the applicant being a fit and proper person to hold a waste licence no evidence was presented to show that Mr McSweeney was ever convicted of an offence under the Waste Management Act, 1996 nor that he failed to meet any of the other requirements of Section 40(7) of that Act.

It should also be noted that stringent waste acceptance procedures will be applied to the site. These are discussed further in the response to submission no. 3 below.

2. Submission from Abina Leahy received on 23/02/00

In this submission the principal concerns of the submitter were (1) illegal dumping occurring on the site and, (2) the lack of intention of the applicant to abide by any such rules and regulations as might be laid down by the Agency and the applicant is not a fit and proper person to hold a waste licence. Miss Leahy cites six different incidences in 1998 when either illegal dumping took place or an attempt was made to carry out dumping on the site. Two letters (from Mr. John Fox and Mr. Noel Cooke) were also copied as part of the submission from Cork County Council to Mr McSweeney stating that any works being carried out on site were unauthorised and being carried out without the benefit of planning permission.

As regards the issue of illegal dumping, the Council is the authority responsible for the supervision and enforcement of the relevant provisions of the Waste Management Act, 1996 in relation to holding, recovery and disposal of waste within their functional area. During previous correspondences the Agency had informed the submitter of this and had written a letter to the County Council stating the same. With regards to the question of the applicant being fit and proper person to hold a waste licence see response to submission 1 above.

3. Submission from Abina Leahy received on 09/03/00

This submission includes submissions which were made with regard to planning permission for the infill of this site with rubble and soil in 1991. The assessment by Senior Planning Inspector of 'An Bord Pleanála' was that the development could go ahead subject to conditions. Miss Leahy includes a list of objections to the report by the Senior Planning Inspector such as the fact that the report states that 'many local people support the development' and that she would like clarification on this matter as she feels that all the immediate residents are objectors. She also questions whether the site, once restored would become a sports field.

She includes her appeal against planning permission on the grounds that (1) no consideration was given to the bird habitat on the site. (2) That an intolerable problem would be caused for the 'Barn Restaurant' by dust caused by the infilling of the site and by youngsters using the site as a playground and football pitch. An ecological report by Core Environmental is included.

Two letters from the County Council from Mr. John Fox and Mr. Noel Cooke were again included in this submission. A letter from Michael Moriarty of Cork County Council regarding waste types to be accepted on site, waste acceptance procedures and the protection of bird habitat.

A report by 'Geotechnical and Environmental Services Limited' was included on the geology and hydrogeology of the site.

As regards the issue of planning permission the Agency is not the competent authority. As regards clarification on the matter of support of local residents this was a matter between the objector and 'An Bord Pleanála' and does not impinge upon the current licence application. With regard to the matter of the future use of the site this is dealt with in the inspector's report Section 1 above and Condition 8 of the proposed decision.

The ecology report included was submitted to the Agency as part of the licence application as, as such has been considered during the preparation of the proposed decision. The proposed decision specifies detailed monitoring requirements including for example (Condition 9.11) an annual biological assessment of the tributary to the Glen River at points both upstream and downstream of the site.

The two letters from Mr. John Fox and Mr. Noel Cooke of Cork County Council were also included in submission number 2, and as such have been dealt with in the response to submission no. 2 above.

As regards the concerns expressed in the letter from Mr Moriarty of Cork County Council regarding the types of waste to be accepted on site and the waste acceptance procedures Condition 5 and Schedule G.2 of the proposed decision clearly restricts the acceptance of all but inert waste types. In addition very strict waste acceptance and characterisation procedures are imposed by Condition 5.3 and Schedule G of the proposed decision. Schedule G incorporates a three level hierarchy of acceptance criteria including chemical analysis of representative samples.

The report by 'Geotechnical and Environmental Services Limited' on the geology and hydrogeology of the site was included as part of the application for the waste licence and, as such has already been considered by the inspector. In addition to a requirement for groundwater and surface water monitoring on site there is a requirement for the compilation of an inventory of existing beneficial users of groundwater in the vicinity of the site and the collection of groundwater quality data. A provision for an alternative water supply for persons whose supply may be affected by the activities on site is also provided for by condition 10.5. Section 4 of the inspector's report above also deals with the issues raised in the report by 'Geotechnical and Environmental Services Limited'.

4. Submission from John Foley received on 13/03/00

Mr Foley again raises planning issues in his submission. He also discusses the traffic volumes on the local roads and states that the bog must have heritage status under the Wildlife Act.

The issues regarding planning have been dealt with in the responses to submissions 1, 2 and 3 above. As regards the heritage importance of the site please see response to submission 1 above.

5. Submission from Abina Leahy received on 13/03/00

This submission, which includes geological and other maps and expresses concerns relating to the issues of lack of knowledge about the groundwater resources in the area and the issues of groundwater protection. It also goes on to discuss various components and chemicals such as finished and preservatives, paints and pigments, wallpaper etc which the submitter considers toxic and/or dangerous. The submission was also states that it has the support of several local schools.

With regard to the issue of groundwater and groundwater protection it is discussed in the response to submissions 1, 3 and 4 above. With regard to the issue of the acceptance of toxic materials on site please see response to submission 3 above where this issue has also already been discussed.

6. Submission from Abina Leahy received on 12/04/00

This submission comprises a copy of a letter from Miss Abina Leahy to the enforcement section of Cork County Council regarding the hazard posed by the site to school children.

Condition 4 of the proposed decision requires security fencing to be installed and maintained on site.

7. Submission from Mairead Lucey received on 17/08/00

This submission from a staff member of the Sanitary Department of Cork County Council asks that the Agency might consider including conditions in any licence granted which might provide for the protection of any bog, marsh, pool or watercourse on the site.

The infilling of the site will result in the loss of the features listed above. See also response to submission no 1 above with regard to the loss of habitat.

8. Submission from Paul Dolan received on 22/08/00

In this submission Mr. Dolan raises the expected difficulties posed by the site to the maintenance of food hygiene standards in the nearby 'Barn Restaurant'.

As the site will only be permitted to accept inert construction and demolition waste it is not thought likely that food hygiene will be compromised in the nearby 'Barn Restaurant'. Other potential nuisances are controlled by Condition 6 of the proposed decision.

Signed _____

Dated:

Inspector, Environmental Management & Planning

APPENDIX 1
LOCATION MAP & LAYOUT PLAN

**APPENDIX 2
SUBMISSIONS**