

# ENVIRONMENTAL PROTECTION AGENCY

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## Oral Hearing of Objections Against the Proposed Decision by the Environmental Protection Agency to Grant a Waste Licence to Fingal County Council for a Large-Scale Landfill at Tooman and Nevitt

*EPA Waste Licence Application Register Number W 0231-01*

**Oral Hearing, Bracken Court Hotel, Balbriggan,  
Fingal County, beginning on 03 March 2008**

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### **CLOSING STATEMENT** on behalf of the **NEVITT LUSK ACTION GROUP**

OH Doc No: 52

Rec'd From: Jack O'Sullivan

Date Rec'd: 13/3/08  
9.22 a.m.

#### **1. GENERAL**

This Oral Hearing has heard a tremendous amount of evidence about the proposed landfill, and particularly about the geology and hydrogeology of the area in which the landfill might be located, if licenced, and about the extent and importance of the underlying aquifer.

It is not the intention of this submission to reiterate or retrace this evidence, nor is it the intention of this submission to be taken as a complete summary of all of the points covered during the Oral Hearing over the last two weeks. Rather, the submission is to be read in conjunction with all of the submissions and observations by and on behalf of the Nevitt Lusk Action Group (NLAG) before and after the proposed decision made by the Environmental Protection Agency, and also in conjunction with documentation and submissions made by NLAG during the course of the oral hearing. The purpose of this closing statement is to summarise and draw together a number of what NLAG considers are the principal issues.

## **1. Range of Issues to be Considered by the Agency**

At the beginning of the hearing, the usual question was raised – what are the matters and issues which the Agency will take into consideration when determining the objections against the proposed decision. Mr Flanagan, on behalf of Fingal County Council (FCC) made it clear that he considered that the only relevant matters to be addressed at the oral hearing, and subsequently by the Agency, were the proposed decision and the conditions embodied in it. Mr Michael O'Donnell, on behalf of the Nevitt Lusk Action Group (NLAG) argued that the Agency must consider all the documentation lodged, and all the submissions made before and during the hearing, as if the application for a waste licence was being heard *ab initio*.

The Chairman clarified that the oral hearing would examine the applicant's EIS as well as all matters related to the proposed decision, that comments or observations would be accepted on all documentation submitted to date, and that the purpose of the Oral Hearing was to collect and clarify information in order to assist the board of the Agency in making its decision.

## **2. Validation of the Applicant's EIS, Integration of the EIA Process, and Compliance with EIA Directives**

However, Mr. Michael O'Donnell asked if the Agency would carry out an assessment of the EIS prior to making a determination, i.e., could the objectors be assured that the EIA process and the EIA Directive were being complied with. Unfortunately, no clear response was given by the Chairman.

A further point of considerable importance raised by Mr Michael O'Donnell was the lack of integration between the decision-making process being carried out by An Bord Pleanála and that being carried out by the Agency. This would appear to frustrate the basic intention and principle of the EU Directives on Environmental Impact Assessment which were to ensure that all of the impacts of a project were to be considered in a comprehensive way, including the interaction between them, before a decision would be made. The split jurisdiction between An Bord Pleanála and the Agency undermined the purpose of the Directive. In response, the Chairman stated that the waste licensing process is entirely separate from the planning process.

The same issue was further addressed by Mr Jack O'Sullivan in his evidence, in which he stated that Article 7 of EU Council Directive 96/61/EC requires that Member States must ensure and guarantee an effective integration of the EIA process before granting a permit for a proposed development, especially when more than one state agency is involved in the permitting process. In his opinion, this requirement had not been complied with.

The illogicality of the situation was further emphasised by Mr Michael O'Donnell when he pointed out that the planning application under consideration by An Bord Pleanála was based on information which was significantly different from that that now being placed before the Agency; and, since there were many

matters in the proposed determination to be decided by agreement between the licensee and the Agency, the Board was put in the position of determining a planning application based on a design and details which have not yet been made explicit, and which were certainly not clarified as far as his clients were concerned.

The Agency was equally in a position where it had to determine an application for a waste licence, while significant aspects or features of the proposed development could be changed in accordance with conditions attached to a grant of planning permission by An Bord Pleanála. And, of course, if the Board refused permission, this Oral Hearing would serve no purpose. Under such circumstances, he requested that this Oral Hearing should be adjourned.

The failure of the Agency to respond to Mr Michael O'Donnell's argument was commented upon by Mr Rory Mulcahy on behalf of the Greenstar who pointed out that all parties attending the hearing are being materially prejudiced by the lack of clarity in the system.

Mr David Hammerstein, MEP, who had been requested by the European Parliament Committee on Petitions to attend the hearing, stated that the Committee was very disturbed that the decision to construct a large-scale landfill, which was a policy decision, had not been subjected to the Strategic Environmental Assessment (SEA) process.

### **3. Consultation and Sharing of Information**

During the Oral Hearing, it became very clear, particularly through the evidence of Mr Paddy Boyle, that the applicant had not consulted fully or openly with the local community; that the applicant was reluctant to share information, and had refused to accept the validity of new and relevant information provided by the Nevitt-Lusk Action Group.

The information obtained by the Group showed clearly that the aquifer underlying the site, and extending north and south from it, was capable of supplying very large quantities of extremely pure water; and this groundwater resource was being utilised through numerous boreholes serving private homes and vegetable growers, producers and packers, i.e. the entire horticultural industry in the area. While these boreholes did not provide a public water supply in the strict sense of the term, some of the larger boreholes must be considered as public supplies, since they provide water for washing and processing horticultural produce which is then distributed to members of the public, and may be eaten uncooked, i.e., high risk foods.

Neither the importance of the industry, its dependence on groundwater, nor the productivity of the boreholes were mentioned in the applicant's EIS which was submitted to An Bord Pleanála and on which the Board will make its decision. This issue emphasised the value of interventions in the planning and permitting process made by a well-informed and competent group of local objectors. The lack of consultation by the applicant, and applicant's attitude to the research

undertaken by NALG and the information which emerged from that research, was therefore very damaging to the integrity of the decision making process and to public confidence in it.

**4. The following observations arise from Mr Boyle's submission:**

Under the heading Geotechnical

- a. The stated objective of maintaining an inward hydraulic pressure on the leachate will result in loss of friction at the liner interfaces with resultant failure of the liner by tearing at the lower side-slopes, and could also lead to slope failure. By acting as a reservoir for leaking leachate, the drainage blanket will be transformed into an efficient distribution system for leachate into the clay. It will effectively transform point source leakage into total liner failure, and make point leakage detection impossible. This has very serious implications for existing landfills in Ireland already using this technique.
- b. The practice of constructing landfills below the water table in Ireland is equally problematical, particularly when the site is underlain by a confined aquifer, with a near artesian piezometric head, and in the presence of gravels as at this site. Localized vertical pathways to the aquifer could result in blowouts during construction. Base heave could also occur during filling. In the case of a site such as this, where gravels overlie the bedrock, these problems could necessitate the permanent dewatering of the entire underlying aquifer. The danger also exists of subsequent excessive pore pressures on the liner resulting in slope failure. In this regard the applicant's objection to the EPA requirement to submit slope stability calculations is noted.
- c. Figures quoted by the applicant for transmissivity in the gravels are totally understated due to the gross underestimation of the depth of gravels. The figure used by the GSI in the Bog of Ring study model for the Courtlough Valley is circa 840 m<sup>3</sup>/day.

Under the heading Hydrogeology;

- a. The applicant has failed to employ best available technology (**BAT**) to establish the existence or otherwise of R3 / R4 responses to nearby wells. The complex strata of gravels, faulting and bedrock beneath, and in the vicinity of the site, in the presence of nearby water sources warranted computerized analysis using 3D-MODFLOW, MODPATH or similar as stated by Dr.Ashley. The applicant's refusal to accede to an EPA request for such a model is also noted.
- b. There is an obvious need for a revision of the Landfill Matrix to protect potentially productive zones for future use. This has been a constant

source of complaint throughout the hearing and if not addressed will surely form the basis of a future complaint to the EU.

## **5. The Importance of the Aquifer**

I will not attempt to review the remaining hydrogeological and geophysical evidence given and discussed during the Oral Hearing, except to say that:

- The evidence given by Mr Paddy Boyle and Mr Kevin Cullen clearly showed that the applicant had seriously and materially failed to identify the extent and thickness of the water-bearing gravel deposits underlying the proposed landfill site and extending north and south of it.
- The applicant's interpretation of the borehole logs was faulty and the computer-generated contours purporting to show the thickness and extent of gravel deposits was therefore misleading.
- It appeared that, in generating these contours, the computer programme did not properly map the data from boreholes which had not penetrated fully into the gravel layer, or had not reached bedrock.
- The geophysical data obtained separately had not been combined with the borehole data or, to put it another way, the contours showing levels of the bedrock and thickness of gravel were not based on geophysical data, with appropriate verification by drilling.
- Where the borehole data showed features which were difficult to explain, or could be explained in more than one way, the applicant did not resolve these problems by obtaining additional field data; i.e., there was no re-iteration of the conceptual model, as would normally be expected in this situation, and the conceptual model which had been produced was grossly over-simplified and misleading.
- The applicant had not undertaken a numerical modelling study as requested by the EPA in the Agency's letter dated 16 November 2006 (this information was requested under Article 12 of the Waste Management (Licensing) Regulations, and compliance with the request is a legal requirement).
- The existence and potential resource value of a large-scale groundwater aquifer in the local area became clear as a result of further assessment of the data and the conclusions reached by Mr Kevin Cullen and Mr Paddy Boyle.
- The horticulture industry was completely dependent on the quality and quantity of water from this aquifer, as described in evidence by Mr Michael Creegan, Mr Tim Bergin, Mr Thomas Moore and others.
- If the proposed landfill were to be constructed, it would have the effect of sterilising a significant portion of the aquifer, the water from which could not be used because of the location of the landfill, even if no leakages of leachate were to occur.

- The Precautionary Principle demanded that a waste licence should be refused because of the adverse impact on this potentially valuable groundwater resource.
- None of this information about the scale and the extent of the aquifer, or its importance to the horticulture industry, or the scale and vulnerability of the industry, was contained in the applicant's EIS, which must therefore be regarded as significantly deficient.

## **6. The Unauthorised Historic Landfill**

The applicant's EIS had merely stated (in Volume 2, section 2.5.2.3, on page 47) that some construction and demolition waste had been discovered in the south-east of the site, and the applicant had made a proposal to the EPA that this area should be remediated. This information was contained in a six-line paragraph under the heading "Construction and Demolition Waste", while a careful reader might have discovered in Volume 5 some photographs showing mixed waste being excavated from a trial pit.

Evidence given by Ms Margaret Heavey and Mr Morgan Burke showed that this unauthorised landfill (which the applicant persisted in describing as a "historic landfill") contained decaying organic matter as well as C and D waste, that the depth and extent of the deposited waste had not been evaluated, that there was no assessment of the waste to determine the presence or absence of contamination by toxic or other substances, that some contamination of groundwater had already occurred, that no risk assessment had been carried out, and that there was no consideration of the illegal dump in the applicant's site selection process.

From their experience of other illegal landfill sites, these expert witnesses suggested that the unauthorised landfill at Nevitt could be one of the largest in Ireland, possibly holding a conservative estimate of 200,000 cubic metres or 360,000 tonnes of illegally dumped waste. Remediation, clean-up and removal of this waste, as required by a Section 60 Ministerial Direction issued in 2005, would be a major task, similar to that undertaken by Greenstar at Blessington under an EPA licence (W 0213-01). The environmental impact of this remediation had not been described or evaluated, i.e., neither an EIS had been produced, nor an EIA undertaken; and the cumulative impact of constructing and operating the proposed landfill and remediating the existing illegal landfill had certainly not been assessed, and this constituted a major deficiency in the application.

## **7. Need for the Proposed Landfill**

The question of whether or not there was an identified need for the proposed landfill was raised early in the hearing by Mr John Ahern (Indaver); and Mr Michael O'Donnell also said that "need" must be addressed by the Agency. Mr Flanagan totally disagreed with these views, as he felt that it was not the function of the Agency to deal with what he alleged was a planning matter.

As the Oral Hearing continued, it became clear that "need" was a core issue, and this was addressed by Mr Jack O'Sullivan who examined landfill capacities and the approximate quantity of waste deposited annually in each landfill. He concluded that there was excessive landfill capacity in Ireland as a whole, and in the Region, and this was in conflict with EU and national policy. The Dublin Region needs better waste management, not more landfills. Though he admitted that landfill capacity would have to be sought outside the region, and there was such capacity available, in plenty.

Jack O'Sullivan

On behalf of

**The Nevitt Lusk Action Group**

13 March 2008

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