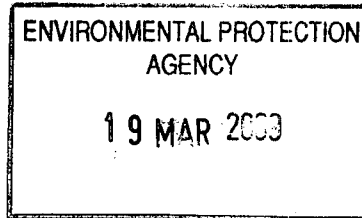


Licensing Unit,  
Environmental Protection Agency.  
PO Box 3000  
Johnstown Castle Estate,  
County Wexford.



Sliding Rock,  
Blackglan Road,  
Sandyford,  
Dublin 18

18-3-09

**Re: Waste Licence Application W 0231-01 Fingal Landfill**

Dear Sir,

Further to your letter of 20<sup>th</sup> February, 2009 I wish to make the following points;

- i) The Applicant states in both the Executive Summary and in Section 4.1 of the Hydrogeological Risk Assessment that 'perched groundwater' is present within the clay overburden. There is not the slightest evidence of 'perched groundwater' conditions in any of the hydrogeological units at the applicant site. As this 'perched groundwater' condition in the clay overburden forms an integral part of the Applicant's conceptual model outlined in Section 4.1 it follows that the subsequent modelling exercise is fundamentally flawed and therefore the output is of no scientific value.
- ii) The Applicant states that an underdrainage layer will be placed beneath the liner system to manage the uplift from the groundwater within the overburden. This drainage layer will naturally impact on groundwater levels within the overburden and the underlying gravel and bedrock aquifers. *(The latter only where the potentiometric surface of the lower aquifers is above the level of the drainage layer.)* Unfortunately this to be expected hydrogeological reaction to the underdrainage layer has not been incorporated into the Applicants modelling exercise. Therefore, as the groundwater levels shown for the operational phase on Figure 006 take no account of the drainage layer any output from a model founded on those levels is of no scientific value.

The Applicant and the Agency might usefully review the conditions (information which is in the public domain) at other Irish landfills where underdrainage layers are in use to appreciate the effect that these drainage

layers have groundwater levels in both the overburden and underlying aquifers.

The relevance and importance of both of the above hydrogeological issues would have been highlighted to the Applicant and the Agency by the numerical hydrogeological model requested by the Agency in 2006. It is now clear that the failure of the Applicant to undertake the requested modelling exercise and the acceptance by the Agency of this non-compliance has led to a considerable waste of public monies in the interim.

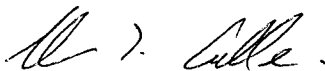
I respectfully suggest that no further consideration should be given to the Applicant's February 2009 Hydrogeological Risk Assessment until the above basic hydrogeological flaws are addressed. To do so would, in my opinion, constitute a further waste of public money.

Furthermore, the full impact of the underdrainage layer on groundwater levels at the landfill and at the nearby Bog of the Ring abstraction can only be determined by the numerical model requested by the Agency in November 2006, ie. more than 2 years ago. I again urge the Agency to follow through on its original request for a hydrogeological numerical model.

In requesting the Applicant to address the above issues the Agency might also remind the Applicant of the Agency's further request of November 2006 that the Applicant i) liaise with the bedrock section of the Geological Survey of Ireland and ii) submit a revised geological map of the landfill footprint.

In these days of failed Regulators it surely cannot be too much to expect the Agency to follow through on the Agency's own requests for information so as to properly inform any decision that the Agency might make in relation to this application. Or is this to be yet another case of where the acceptance of non-compliance leads to a fiasco which is subsequently followed by an investigation to inquire why normal regulatory procedures were not followed.

Yours Sincerely,



EurGeol Kevin T. Cullen PGeo.