

**INSPECTORS REPORT ON A LICENCE APPLICATION**

<b>To:</b>	DIRECTORS	
<b>From:</b>	DR J DERHAM	- LICENSING UNIT
<b>Date:</b>	2 MARCH 2006	
<b>RE:</b>	APPLICATION FOR A WASTE LICENCE BROWNFIELD RESTORATION IRELAND LTD, LICENCE REGISTER 204-01. WHITESTOWN LOWER, CO. WICKLOW	

**Application Details**

Type of facility:	Integrated Waste Treatment Facility and Non-Hazardous Residual Landfill
Classes of Activity ( <b>P</b> = principal activity):	3 <sup>rd</sup> Schedule: 4, 5, <b>7(P)</b> , 11, and 13 4 <sup>th</sup> Schedule: 2, 3, 4, 11 and 13
Quantity of waste managed per annum:	180,000 tonnes  Waste types: previously deposited wastes and commercial, C&D, and household waste.
Quantity of waste already deposited:	<i>c.240, 000 tonnes</i>
Location of facility:	Whitestown Lower, Stratford-on-Slaney.
Licence application received:	18 March 2004
Third Party submissions:	124
EIS Required:	Yes
Article 14 compliance date:	21 May 2004
Article 16 Notices sent:	14 December 2004 22 March 2005 30 May 2005
Site Inspections:	21 April 2004 (M. Doak)  18 January 2005 (M. Doak & K. Creed)

## 1 Introduction

This memo is to read in conjunction with the Inspectors Report for the Recommended Decision (dated 10 August 2005) and the memorandum of the Program Manager for the Licensing Unit on the subject of the Recommended Determination, dated 5 September 2005. A decision on the application was deferred by the Board of the Agency at its meeting on 13<sup>th</sup> September 2005, pending further consideration of the proposals with regard to the environmental aspects of the site, the Ministerial Direction in relation to illegal waste sites, the application of best practice in relation to the engineering and siting of waste management infrastructure, the appropriateness of the waste types proposed, and the need to remediate the site. In addition, this memorandum provides an opportunity to consider two additional submissions received on the application that were received since the completion of the Inspectors Report.

## 2 Additional Matters

As noted in the Inspectors Report for the Recommended Decision, some 120 valid submissions had been received up to the making of that report (10-8-05). However since that date four additional submissions have been received in relation to the application; two from a Ms A Green, Donard, Co Wicklow; one from a Mr James Butler, also of Donard, Co Wicklow; and one from Golder Associates (Consultants) for the applicant. The latter is a direct response to the submission from Ms Green. These are assessed below.

### Submission 16-11-05 from Ms A Green, Donard, Co Wicklow & rebuttal Submission from Golder Associates for the applicant (1-1-06)

Ms Green attaches to her submission an extract from a report for An Bord Pleánala (ABP) from Mr David Ball (Hydrogeologist) in relation to the planning application for the facility. Mr Ball's lengthy report documents what he believes are shortcomings in relation to the proposed facility and the application documentation. Some of the principal concerns articulated are:

- The proposed site has not been selected following conventional landfill site selection criteria;
- There is little evidence to support the long-term stability/integrity of the landfill engineering solutions;
- The application documentation is incomplete/inadequate;
- There is no natural barrier at the site;
- The groundwater vulnerability is extreme;
- The risk to the Carrigower River is significant;
- Inadequate groundwater risk assessment;
- Inadequate site investigation; and
- The hydrogeological characterisation of the site is inadequate.

Golder Associates - for the applicants - in a strongly worded submission defend their clients' application documentation, the risk assessment, the site investigation work, and hydrogeological characterisation of the site. Having reviewed the EPA Inspectors Report, the application files and the submission of Mr Ball, I am satisfied that the scope and depth of technical information in the various sections of the licence application documentation, including the risk assessment and site characterisation, is sufficient to permit a decision in relation to the application. On the matter of the design detail submitted, I should add that it is normal in such projects that final detail would be worked out prior to construction; these

elements being matters for conditions in an authorisation. To insist on all detail design work to be in place prior to decision in principle, is not reasonable.

I note that a number of Mr Ball's concerns relate to the selection and approval of BAT. This aspect of the application determination, in-so-far-as it relates to emissions management, is a matter for the EPA and not ABP.

§34(2)(c) of the Planning & Development Act 2000 states that:

*... where an application [for planning permission] relates to development which comprises or is for the purposes of an activity for which ... a waste licence is required, a planning authority shall take into consideration that the control of emissions arising from the activity is a function of the Environmental Protection Agency*

Golders' believe that the concerns regarding site selection are not particularly relevant as the site is a 'brownfield' site, with the applicants objective being remediation. I do not accept this position: a landfill for illegally deposited wastes should not be located in an area that would be deemed unsuitable for a greenfield landfill development for similar wastes: I would thus agree with the view of Mr Ball in that regard. I also accept Mr Balls view that the groundwater beneath the site is extremely vulnerable and that the Carrigower River located just 100m down-gradient, is a high risk receptor. The applicants do acknowledge this risk and have suggested the use of a bentonite wall constructed in the ground, down to rock, as a means of mitigating the risk.

*Submission 17/2/06 from Mr Butler*

Mr Butler queries the progress of EPA action in relation to this application, in particular the clean-up of the site.

*Submission 22/2/06 from Ms Green*

In this submission Ms Green refers to the recent decision to refuse the Roadstone (CRH) proposal for a residual waste landfill at Blessington, Co Wicklow (Licence Register 213-01), and notes that the Whitestown proposal is equally unacceptable. Ms Green again refers to the findings of Mr Ball for An Bord Pleanala (refer above), and goes on to comment that the provision of the bentonite wall is 'an extreme' form of engineering solution for the site – attesting to the high risks associated with the site. The submission concludes with some comments regarding the progressing of criminal sanctions on those responsible for the filling of the illegal waste.

This application and the Blessington CRH application have some matters in common; they are both sites containing illegally deposited wastes, both applications seek to remediate the site, both wanted to place residual waste in engineered areas, and both solutions represent environmental challenges. The Whitestown application differs in some respects as it proposes to import waste and develop a recovery building and facilities on-site. The matter of the acceptability of the Whitestown application is considered in more detail below. On the use of the bentonite wall I can comment that its inclusion will assist in the protection of the local river during the excavation of the historical waste, and for that reason would be considered beneficial engineering containment.

### **3. Discussion**

The applicants want to construct a series of engineered cells for the disposal by landfill of residual industrial, commercial and domestic wastes resulting from the excavation and processing of the historically placed waste. In addition the applicant wishes to import similar

residual wastes for disposal in the landfill. The supporting infrastructure includes a recovery building and composting facilities.

The proposed site is within 100m and directly up-gradient of the Carrigower River, which is designated a Site of Community Importance (SCI) (salmonids) as per EU Decision of 7 December 2004. The underlying geology is highly permeable – there is no ‘natural’ barrier in the sub-soils.

Two residences lie immediately adjacent to the proposed landfill on the south side no more than 20m from the facility boundary and 40m from the landfill footprint.

In a recent decision by the Agency in respect of the Roadstone Dublin Limited Blessington site (waste licence Register 213-01), certain regulatory norms proposed in a report to the Board on that application were accepted as representing a framework for good decision making in relation to licence applications for the remediation of illegal waste sites.

The framework can be articulated as follows:

**A.** *It is not appropriate to apply a strict interpretation of the Proximity Principle in relation to the remediation of illegal waste sites.*

This tenet requires no elaboration.

**B.** *Resolutions to illegal waste deposits which involve in the solution some on-site residual disposal component, should at the very least follow the standard regulatory norms and procedures as would apply to a legitimate operation proposing such a facility.*

To apply any lesser a burden would be disproportionate, and would undermine the value of pursuing legitimate regulatory protocols, and would undermine the legitimate waste industry (i.e. by promoting the pursuit of retrospective legitimatising). In addition to the application of the standard regulatory norms, illegal activities may well have to endure additional enforcement or other regulatory requirements: those requirements being applied proportionately.

The principle of sustainability includes pillars of social as well as environmental equity. And many protagonists of this paradigm would argue that a fourth pillar of the principle (additional to economical) would be good governance. The application before us for a non-hazardous residual domestic, commercial and industrial waste landfill has not been developed or processed in a manner equivalent to what would be required of a new legitimate and equivalent facility. For example, site selection protocols have not been followed as would be required of a legitimate facility were it to be proposed for the area. These governance short-circuits prevent the community and other social partners from engaging in the conventional manner in the full (and normal) regulatory determination process for a domestic, commercial and industrial waste facility. Having regard to the risk profile for such developments, I do not believe that such ‘short-circuiting’ protects the interests of society, nor does it represent good governance. Thus, such practices cannot be said to adhere to the principle of sustainability.

The third tenet of the illegal waste licence application decision making framework is captured in the following text;

**C.** *The regulator, in the case of a waste licence application for an illegal waste facility involving the development of a landfill, must ask what would be the likely view taken were this a new legitimate waste facility coming forward for determination in the statutory planning and environmental regulatory frameworks.*

The applicants argue that the potential impact on the local river have been addressed via the evaluation of risks (modelling) and the employment of a superior standard of containment for the residual waste cells, including a bentonite barrier wall. In this highly technical society, it is true that if one applies a sufficient amount of engineering, that almost any operation can be rendered safe. However, the application of excessive engineering solutions to offset inappropriate or poor site selection is not necessarily the best procedural solution, particularly where other sites are available or could be evaluated. This leads to the fourth tenet:

*D. In relation to the selection of on-site remedial solutions for illegal waste deposits involving landfill, the application of excessive engineering solutions to offset inappropriate or poor site selection is not considered BAT.*

It is not the place of the Agency to address what the views of the planning authorities would be with regard to zoning, etc. But within the competency of the Agency (i.e. the waste licence application process), it is unlikely that any favourable recommendation to locate a new domestic, commercial and industrial waste facility within such a hydrogeological setting in the immediate catchment of the Carrigower River, which is designated a Site of Community Importance (SCI) (salmonids), would ever issue. Moreover, I do not believe it represents BAT to locate a residual domestic, commercial and industrial waste facility so close to neighbouring private residences (40m). It is my view that any decision to locate a domestic, commercial and industrial waste landfill facility in the immediate (100m) catchment of the river and so close to private residences would represent an unacceptable and unsustainable precedent.

If a new legitimate landfill proposal for a residual domestic, commercial and industrial waste facility would in principle be unacceptable for such a location, then the solution to an illegal waste issue involving the same type of facility should be equally unacceptable.

However, the application before the Agency for Whitestown involves a range of waste management operations, and not just landfilling. The applicants propose the following activities:

- Protection of the river from spills or plugs of contamination that may be caused during waste excavation (bentonite wall);
- Operation of a mobile waste recovery unit for the excavation and treatment of previously deposited wastes at the gravel pits;
- Waste treatment building (*Resource Recovery Building [RRB]*);
- In-vessel composting facility;
- Restoration of all lands by infilling the gravel quarries with the lined landfill for agricultural purpose in the future.

Indeed the principle activity applied for covers these operations: Class 7 of the Third Schedule of the Waste Management Acts 1996-2005 – *Physio-chemical treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in ... this Schedule.*

I am of the view that the site proposed is suitable for these processes as set out in the application documentation and as may be restricted in the Amended Recommended Decision attached. The restoration of the excavated historical waste areas by filling the engineered landfill void with inert waste only, should not result in any significant impact on the environment. It will be necessary to import and place non-recoverable inert materials to assist in the completion of the restoration and landscaping as set out in the application

document. This, in my view is acceptable and will serve to restore the former quarry to an acceptable landform. The use of inert waste is protective of the river and the local houses.

Inert waste is defined in the EU Landfill Directive (1999/31/EC) as:

- (e) 'inert waste' means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater;

This standard of material is very robust and protective of the environment. Additional guidance on the interpretation of inert waste is presented in EU Council Decision 33 of 2003. The deposit or placing of such material on the Whitestown site where associated with the remediation and reclamation of the former illegal waste areas and the restoration of the quarry does not represent a risk to the integrity of the river, either directly or via precedent. It is the best practicable option for such material, and in myview would be sustainable. Indeed it is quite common in planning applications for quarries to have conditions requiring the restoration of worked out areas with soils, sub-soils and other suitable inert materials. In addition, the EU Landfill Directive notes the special – and low risk - character of inert wastes when employed usefully. In Article 2 of the Directive it states;

**2. Without prejudice to existing Community legislation, the following shall be excluded from the scope of this Directive:**

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- the use of inert waste which is suitable, in redevelopment/ restoration and filling-in work, or for construction purposes, in landfills,
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- the deposit of unpolluted soil or of non-hazardous inert waste resulting from prospecting and extraction, treatment, and storage of mineral resources as well as from the operation of quarries.

There is a national shortage of waste recovery infrastructure. The waste recovery buildings and composting units proposed by the applicants for this site are, from a environmental risk perspective, the sort of activities that would be acceptable for a location such as Whitestown. The continued operation of this infrastructure after the remediation of the historical waste areas is acceptable subject to compliance with the terms of the attached amended recommended decision.

The development and operation of waste recovery infrastructure on a site formally occupied by illegal waste does not conflict with the Ministerial Direction (Environment's Circular (WIR: 04/05) of 3 May 2005) in relation to illegal waste activities. And the restoration of the land formerly occupied by illegal waste with inert material (sourced on-site and imported) complies with the said Direction. This Ministers' Environmental Circular specifies the aim in all cases of illegal waste activity should be the making safe of the site, including the removal of waste where required as a consequence of a risk based assessment, the

removal of hazardous waste where it is detected, and the removal of recyclable material if environmentally sustainable. All of these are proposed to be done at the Whitestown site.

The Circular determines certain sites should at all times be remediated such as:

*lands proximate to existing or planned residential development or educational facilities, in which case remediation shall require the removal, in the shortest practicable time, of all waste except only where it is shown that an alternative solution provides greater protection to the environment and the health of the local population;*

And

*Natural Heritage Areas, Candidate Special Areas of Conservation or Special Protection Areas.*

As articulated in the Inspectors Report to the Board with the Recommended Decision, and in this report, the main remedial strategy specifies excavation of waste under a controlled groundwater barrier environment. Hence remediation by removal at Whitestown meets the Minister's policy.

The Minister's policy goes further; where it is deemed appropriate to leave waste in situ the holder of the waste shall:

- i. carry out, or arrange for the carrying out, of a risk assessment to determine the environmental impact, if any, of the waste illegally deposited;*
- ii. make application for a permit or licence to the relevant local authority or the Agency which will determine the actions required by the holder to remediate and manage the site into the future;*
- iii. comply with any permit or licence so given to ensure that all remediation and management measures determined by that permit or licence are complied with and that the site poses no identifiable future threat to the environment or human health;*
- iv. not be permitted to import greater quantities of material for deposition other than such inert material/soil as may be necessary for site conditioning.*

In relation to the permission to landfill inert waste on site it can be stated that the application submitted and the terms of the amended Recommended Decision attached hereto address these four aspects of the Direction; in particular the last point.

#### **4. Recommendation**

Having regard to the submissions of the third parties detailed in the Inspectors Report to the Board and in this report, the views of the applicants documented in the application files and this report, the risks to the local river and adjacent dwellings, and the decisions of the Board of the Agency in relation to other illegal waste sites, it is the recommendation of the Licensing Unit that a licence be issued to the applicants along the lines suggested herein, and subject to the conditions detailed in the Amended Recommended Decision accompanying this report. The licence requires that all the illegally placed and potentially polluting domestic, commercial and industrial wastes are removed off-site to an approved licensed facility, with any recovered inert wastes to be retained on site and used in the restoration and landscaping of the excavated areas. The licence also permits the importation of inert waste to assist in the restoration of the quarry. Class 4 of the Fourth Schedule of the Waste Management Acts 1996 to 2005 is still a relevant class to describe the landfill of the inert waste at this site as from a point of view of precaution (given the proximity of the river and the highly permeable geology) certain details of engineering measures as identified in the Landfill Directive, and including the bentonite wall, will be required to be agreed under the conditions of the licence.

The recommended decision also permits the operation of a waste recovery building and associated plant, with all;

- non-recoverable inert waste material being landfilled on site to the extent necessary to achieve the final contour specified in licence
- non-inert material being sent off-site for disposal/recovery at an approved facility.

The licence prohibits the importation of waste for processing in the Recovery Plant until all historical waste has been excavated and processed, and the authorisation to commence importation of waste for recovery (either as inert fill or in the Recovery Plant) is contingent on the Agency being satisfied that all the historical waste areas have been appropriately dealt with.

The recommended Proposed Decision attached hereto addresses the concerns of the local community, and is consistent with the objectives of the Ministerial Direction issued under the Waste Management Acts 1996 to 2005 (DoEHLG Ministerial Circular WIR: 04/05 of 3 May 2005).

Signed,

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Dr Jonathan Derham  
Licensing Unit

#### **Procedural Note**

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Acts 1996-2005.