



**OF
LICE**

This report has been cleared for submission to the Board by the Programme Manager Frank Clinton. Signed Walter Keels Date 5/12/12

USE

REPORT OF THE TECHNICAL COMMITTEE ON OBJECTIONS TO LICENCE CONDITIONS

TO: Directors

FROM: Technical Committee ENVIRONMENTAL LICENSING PROGRAMME

DATE: 29th November 2011

RE: Representation on a draft Certificate of Authorisation (COA) issued to Cork County Council in relation to an historic landfill at Newmarket, County Cork. Reg. No. H0001-01.

Application Details

Type of facility:	Historic unlicensed waste disposal landfill facility
Class of activity:	3rd Schedule; Class D1
Location of activity:	Newmarket, County Cork
COA application received:	11 May 2009
Draft certificate issued:	23 June 2011
Representation received:	One

1. Background to this report

The application relates to an historic unlicensed landfill at Newmarket, County Cork. The landfill is one of the sites identified on the inventory of unregulated waste disposal sites in Cork County which was completed by Cork County Council in accordance with the requirements of Section 22 of the Waste Management Acts 1996 to 2011.

Cork County Council has estimated that waste disposal began at the site in the 1950s. A variety of wastes were known to have been deposited there including Municipal Solid Waste (MSW) and Construction and Demolition (C&D) waste. The site was open to the public and is thought to have closed in 1984. As per the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008, the landfill requires authorisation by a certificate of authorisation (COA) from the Agency.

Tier 1, 2 and 3 Risk Assessments were carried out by Cork County Council. Overall, the Risk Assessment included waste characterisation, the extent of the waste body, leachate, landfill gas and impacts on receptors. The Tier 3 investigation included a review of the source-pathway-receptor linkages and the refinement of the conceptual site model. A Quantitative Risk Assessment was not completed due to the low risk outcome of the Tier 2 investigation. The Risk Assessment was carried out in accordance with the Agency Code of Practice for risk

assessing unregulated waste disposal sites¹. The waste in the landfill was characterised as inert.

Nearby receptors include workers at an adjacent WWTP, groundwater and the adjacent River Dalua (which lies within the River Blackwater Special Area of Conservation). Overall Cork County Council considered the risk posed by the landfill on the workers in the WWTP to be negligible. Based on groundwater and surface water quality data gathered during the site investigation it was demonstrated that the landfill is not having an impact on groundwater and surface water quality and is therefore not having an impact on the adjacent SAC.

A draft COA issued on the 23rd June 2011 and set out the conditions under which Cork County Council would be required to manage and restore the facility. The COA authorises the remediation, restoration and aftercare by Cork County Council and includes requirements to manage and monitor the landfill to ensure that it does not cause environmental pollution in the future.

2. Consideration of the Technical Committee

This report considers one valid First Party representation. The main issues raised in the representation are summarised under various headings below. However, the original representation should be referred to at all times for greater detail and expansion of particular points.

The Technical Committee (TC), comprising of Michael Owens (Chair) and Ewa Babiarczyk, has considered all of the issues raised in the representation and this report details the Committee's comments and recommendations following the examination of the representation.

2.1 First Party representation

In general, the Council requests that the Agency amend or delete a number of conditions in the draft COA. Each point of the representation is outlined below.

1. Conditions 2.4 and 2.5

The Council reiterates the fact that the waste is inert and contends that, as a consequence of that fact, no measures will be necessary to prevent environmental damage and that any resource implications for the Agency in relation to the site will be negligible. Accordingly, the Council is requesting the removal of both conditions.

Technical Committee's Evaluation

Condition 2.4 sets out requirements in relation to environmental liabilities and includes provision for submission by the Council to the Agency of a statement as to the measures being utilised at the facility to prevent damage to the environment and the financial provisions in place to address any impact, should an impact occur in the future. The submission of such a statement is considered to be necessary so that assurances are provided to the Agency on a regular, if infrequent, basis in relation to, among other things, the state of the facility at any one time, the progress of restoration works and the capacity to respond to unforeseen events that may cause an environmental impact. The Technical Committee is of the view that this represents good practice. Condition 2.4 provides for the statement to be submitted to the Agency at an extended frequency of once every five years and as the likelihood of damage to the environment is low, the Technical Committee does not view this as an overly burdensome requirement for Cork County Council. The Technical Committee does not recommend removal of Condition 2.4.

¹ Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites (EPA 2007)

Condition 2.5 facilitates the imposition of charges by the Agency on Cork County Council to address any costs that the Agency might incur while carrying out its functions under the historic landfill regulations in relation to the landfill. It is the view of the Technical Committee that, although it has been established that the closed landfill currently presents a low risk to the environment, it must be accepted that some level of risk exists which must be managed into the future. The COA provides a mechanism for management and minimisation of that risk while the landfill is being restored and remediated as per the requirements of the COA. As such, the COA includes requirements to manage and monitor the landfill to ensure that it does not cause environmental pollution. It must be accepted that additional measures may be required in the future to address any polluting event or incident or any additional impacts or risks that may be revealed by the monitoring. Such measures would require action by Cork County Council and/or the Agency and therefore may incur costs for the Agency.

The imposition of charges by way of a licence condition is a standard mechanism utilised by the Agency to recover any costs that may be incurred by it in the performance of its duties in relation to an authorised site. It should be noted that Condition 2.5 of the COA does not set an actual amount to be charged but simply requires a '*contribution or such sum*' as the Agency may determine having regard to the extent of the Agency's involvement in enforcing the COA (or other actions as may be necessary in relation to the landfill). The Technical Committee considers this to be a reasonable approach to the matter of recouping costs for the Agency, where they occur, and therefore does not recommend removal of Condition 2.5.

Recommendation: No Change

2. Condition 3.1(a)

The Council cites Section 10.2 of the EPA's 'Landfill Site Design' manual², which lists the main objectives in relation to the design of a landfill capping system, addressing matters such as water infiltration, gas migration and capping liners. The Council argues that, given the thickness of existing soil over the landfill, the inert nature of the waste and the overall low level of risk as presented by the landfill, that infiltration of water to the landfill or migration of gas from the landfill should not be considered as significant issues. Consequently, it is argued that the restoration requirements as set out in condition 3.1(a) of the COA should not be included.

It is contended that any restoration requirements should be related to the outcome of any monitoring whereby any evidence of deterioration in the quality of nearby receptors would, on the instruction of the Agency, necessitate the application of necessary restoration works to address the detected impact.

Technical Committee's Evaluation

Condition 3.1(a) of the COA does not refer to the EPA's 'Landfill Site Design' manual but in fact refers to Table 4.3 of the EPA's 'Landfill, Restoration and Aftercare' manual³. Table 4.3 of the 'restoration' manual simply provides recommended minimum soil depths for restoration of various landfill types taking into account the proposed after use of the landfill area. One of the landfill types listed in Table 4.3 is 'an inert landfill with no capping layer or gas control system', similar to the closed landfill in question.

The main purpose of the COA is to provide a mechanism under which the closed landfill will be restored and remediated. There is currently a thin layer of soil covering the landfill. Condition 3.1(a) of the COA requires that the depth of soil cover be in line with the guidance provided in Table 4.3 of the 'restoration' manual. The Technical Committee considers that

² Landfill Manuals - Landfill Site Design (EPA 2000)

³ Landfill Manuals - Landfill Restoration and Aftercare (EPA 1999)

this is a reasonable and appropriate approach for restoration of the closed landfill. The Technical Committee therefore does not recommend removal of Condition 3.1(a).

The Risk Assessment has identified the (albeit low) risks to the nearby receptors and the subsequent COA provides a suitable mechanism to manage those risks into the future to prevent new risks arising or for current risk levels to increase. It is therefore not considered appropriate that restoration works should commence after an impact on nearby receptors has been detected. It is the view of the Technical Committee that this approach would represent a reactive rather than a preventative approach and would subvert the Risk Assessment process.

Condition 3.1(a) of the COA provides for recognition of the level of risk posed by the closed landfill whereby it allows for regard to be had to the risk assessment findings (and the level of risk so determined) when carrying out restoration works. In addition, it should be noted that, in relation to Table 4.3 of the 'restoration' manual, the COP permits deviation from its guidance provided the rationale behind it is agreed by the Agency. Overall, the Technical Committee considers that there is a significant level of flexibility available to Cork County Council in relation to meeting the restoration requirements of Condition 3.1(a) and that the nature of the restoration works can be amended and agreed depending on suitable monitoring results. Essentially, monitoring results could, with the agreement of the Agency, be utilised to reduce restoration requirements but should not be utilised in the place of restoration requirements. The Technical Committee can find no compelling reason to recommend amendment of the restoration requirements of the draft COA as proposed by the Council.

Recommendation: No Change

3. Condition 3.3

It is contended by the Council that the timeframe for completion and submission of a validation report following completion of the restoration works should be related to the completion of the restoration works rather than be tied to a specific timeframe. It is requested that the condition be amended to reflect this.

Technical Committee's Evaluation

Condition 3.3 of the COA sets a requirement that, unless otherwise agreed, a 30 month deadline applies for submission of the validation report. The Technical Committee considers that, given the relatively simple nature of the restoration works required at the landfill, the 30 month timeframe should be a sufficient amount of time within which to submit the validation report. In any case, Condition 3.3 also provides leeway for Cork County Council to agree an extended timeframe should one be considered necessary taking into account factors that may affect completion of the restoration works.

The Technical Committee does not recommend amendment of Condition 3.3.

Recommendation: No Change

4. Condition 3.4.1

The Council reiterates the findings of the Risk Assessment whereby it has been determined that the landfill is classified as low risk due to among other things the inert nature of the waste. It is also stated in the representation that the landfill is '*having no impact on off-site receptors*'. The Council requests the amendment of Condition 3.4.1 so that the requirement for annual monitoring as set therein is terminated when, after 5 years of monitoring, results indicate no impact on environmental quality.

Technical Committee's Evaluation

Condition 3.4.1 of the COA sets a minimum requirement for an annual assessment of the landfill to confirm that the landfill is not failing to achieve the objectives set for it in the Risk Assessment or COA. The scope of the annual assessment is set out in Condition 3.4.2. However, Condition 3.4.1 provides a mechanism for the frequency of assessment to be amended with the agreement of the Agency at a time of no less than 2 years following the grant of the COA. In addition, Condition 3.5 also provides for the frequency of monitoring to be amended following the evaluation of monitoring results.

Overall, the Technical Committee considers that these conditions provide sufficient flexibility and suitable mechanisms for the amendment of the frequencies of assessments and monitoring and does not recommend the amendment of Condition 3.4.1 as proposed by Cork County Council.

Recommendation: No Change

5. Condition 3.4.3

The Objector contends that it is not the role of the licensee to develop trigger levels as is required by Condition 3.4.3 of the COA. It is stated that relevant thresholds have already been set in statute and that any 'gaps' will be addressed by the Agency and others. It is contended that standard practice is to compare the measured concentrations of parameters to the thresholds set in statute or other recognised standards. For this reason, it is requested that condition 3.4.3 be removed from the COA.

Technical Committee's Evaluation

Standards are set to protect environmental quality. They mark a dividing line between acceptable and unacceptable levels of a parameter in the environment. In the context of the closed landfill, standards have been set in statute for water quality only⁴. Interim guideline standards for groundwater quality were published by the Agency in 2003⁵, while the DOE published guidelines in relation to landfill gas in 1994; however, neither of these is set in statute.

It is accepted that it is normal scientific practice to compare measurement results with relevant standards so as to form a picture of the quality of the environment at any one time. Nonetheless, it has also become normal practice to utilise the concept of a trigger level that would act as an 'early warning system' to indicate a decline in environmental quality. Where a trigger level is exceeded corrective measures can be implemented at an early time to prevent an actual quality standard being closely approached or even exceeded. This represents a sensible precautionary approach to environmental protection as it ensures that the level of a particular parameter always stays well within safe levels.

The concept of a 'trigger level' is explained and discussed in the EPA's 'Landfill Monitoring' manual⁶. It is stated in the manual that trigger levels can be set by the Agency (e.g. in a licence) or by an operator. It is also stated that trigger levels can be established using baseline monitoring results. With that in mind, it is the view of the Technical Committee that, in this case, Cork County Council is best placed to develop suitable trigger levels as the Council has the most up-to-date and relevant knowledge of the facility on an on-going basis.

⁴ European Communities Environmental Objectives (Surface Water) Regulations 2009

⁵ Towards Setting Guideline Values for the Protection of Groundwater Quality in Ireland – Interim Report (EPA 2003)

⁶ Landfill Manuals - Landfill Monitoring (2nd Edition EPA 2003)

Overall, it the view of the Technical Committee that the development of trigger levels represents best practice and that, in the case of the landfill in question, the responsibility of setting the trigger levels should lie with Cork County Council. The Technical Committee does not recommend removal of Condition 3.4.3.

Recommendation: No Change

3. Condition 3.8

The Objector is seeking clarification regarding its responsibilities under a specific clause in Condition 3.8 wherein it is stated that the '*site shall be maintained in a good condition at all times*'. It is stated that the licensee does not intend to implement any '*horticultural management programme*' at the site but rather it is intended to allow the site to revert to a natural state in order to promote local biodiversity.

Technical Committee's Evaluation

The quoted text (i.e. that the '*site shall be maintained in a good condition at all times*') is set out in paragraph two of Condition 3.8. This refers mainly to the control of litter and of any waste fly-tipping that may occur at the facility. It is the view of the Technical Committee that this is not an unreasonable requirement and would represent good practice to prevent the general misuse or deterioration of the facility in the future in such way that would present a nuisance to the locality or could negatively affect the successful restoration of the facility. There is no expectation in the condition that Cork County Council should do anything other than is planned to allow the site to revert to a natural unmanaged state and in doing so promote biodiversity. The Technical Committee does not recommend any change to the COA.

Recommendation: No Change

Overall Recommendation

It is recommended that the Board of the Agency grant a certificate of authorisation as proposed to Cork County Council in respect of the closed landfill at Newmarket County Cork subject to the conditions set out in the draft certificate of authorisation.

Signed:



Michael Owens, Inspector

for and on behalf of the Technical Committee