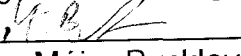


This memo has been cleared for submission to the Board by the Programme Manager F. Clinton

W0012-03

Signed:  Date: 11/6/11

Máire Buckley

**OFFICE OF CLIMATE,
LICENSING &
RESOURCE USE**



**REPORT OF THE TECHNICAL COMMITTEE ON OBJECTIONS
TO LICENCE CONDITIONS**

TO:	Directors
FROM:	Technical Committee - LICENSING UNIT
DATE:	06 th April 2011
RE:	Objection to a Proposed Decision (PD) for Cork City Council in relation to the Kinsale Road Landfill located at Ballyphehane, Curraghconway, Inchisarsfield, South City Link Road, Co. Cork, Waste Licence Register No. W0012-03.

Application Details	
Class of activity: (P = principal activity)	Third Schedule: 1(P) , 2, 4, 5, 7, 11, 12 & 13. Fourth Schedule: 2, 3, 4, 10, 11, 12 & 13.
Location of activity:	Ballyphehane, Curraghconway, Inchisarsfield, South City Link Road, Co. Cork.
Licence application received:	10 th December 2008
PD issued:	29 th November 2010
First Party Objection received:	24 th December 2010
Third Party Objection Received	None

Company

This report relates to objections received by the Agency to a Proposed Decision (PD) issued to Cork City Council on the 29th November 2010 in relation to the Kinsale Road Landfill.

Kinsale Road Landfill has been in existence since the 1960's and consists of unlined cells. The facility, including historically landfilled areas, is approximately 72 hectares in size. The facility was issued its first waste licence, W0012-01, on 2 February 2000 which authorised it to accept approximately 200,000 tonnes per annum of household, commercial and industrial non-hazardous waste. The following infrastructure was put in place after this licence was granted: a new administration complex, weighbridge, wheel wash, waste inspection and quarantine area, a civic waste facility, a leachate conditioning plant, a composting slab (green waste), leachate cut-off wall, sheet pile wall, leachate collection drain, leachate storage lagoon, storm water retention pond and reed beds.

A revised licence, W0012-02, was granted 29 November 2002. This review was requested to authorise an increase in the available capacity of the landfill, alteration of the final cap requirements, to prolong the life of the C&D facility, to amend the boundary of the facility, to incorporate infrastructure developments and to amend monitoring requirements. Landfilling activities have ceased since 16 July 2009 in accordance with the Landfill Directive (1999/31/EC) and the Waste Management (Licensing) Regulations (S.I. 337 of 2002).

Cork City Council applied for the current licence review, W0012-03, on 10 December 2008. The primary reason for this licence review is to provide for the operation of a waste transfer station, to amend the landfill conditions in relation to the cessation of landfilling at the facility as required by the Landfill Directive and to reflect the revised final pre-settlement contour of the landfill facility agreed with the Office of Environmental Enforcement (OEE).

Consideration of the Objections by Technical Committee

The Technical Committee comprised of Caroline Connell (Chair) and Brian Meaney. This report contains the comments and recommendations of the Technical Committee following an examination of the objections. Discussions were held with the licensing inspector, Mr. Stuart Huskisson. Objection No. 8 was discussed with the OEE inspector for the facility Ms. Siobhán McDonnell.

This report considers one valid first party objection, which was submitted by Cork City Council. The main issues raised in the objection are summarised below. However, the original objection should be referred to at all times for greater detail.

First Party Objection

The applicant submitted a letter addressed to the Agency in the form of a short introduction and 15 points of objection as set out below.

Nine points of objection are in relation to reporting timelines in the PD.

Objection Nos. 1 - 9: Reporting Timelines.

Objection No. 1:

Condition 3.10.1 states that *“The licensee shall carry out a revised risk assessment that includes the proposed Waste Transfer Station, to determine if the facility should have a firewater retention facility. The licensee shall submit the assessment and a report to the Agency on the findings and recommendations of the assessment within six months of the date of grant of this licence”*.

The licensee feels that as they have not yet determined when/if the proposed waste transfer station will be constructed that the report be submitted within three months in advance of the commencement of construction.

The Technical Committee recommends the proposed change.

Recommendation:

Amend Condition 3.10.1 as follows:

*"...The licensee shall submit the assessment and a report to the Agency on the findings and recommendations of the assessment **three months in advance of the date of commencement of construction of the waste transfer facility**".*

Objection No. 2:

Condition 6.15.4 states that *"The licensee shall, within three months of the date of grant of licence, submit to the Agency for its agreement trigger levels for TOC, conductivity and pH for the water entering the storm water retention pond (SRP1) prior to reed bed treatment (using the methodology outlined in Kinsale Road Landfill - Target Levels for Surface Water: Attachment 8 of Article 14(2)(b)(ii) information - 13th May 2009). The proposal shall include: (i) trigger levels which when exceeded shall require the licensee to divert the storm water to the sewer via SD1. In the intervening period the following trigger levels for diversion of storm water to sewer shall apply at SRP1: Conductivity: >1,750µS/cm; TOC: >75mg/l, and; pH: <6 or >9"*.

The licensee considers the proposed timeframe to be onerous taking into account the totality of reporting required under the PD as well as the lead-in time for procuring/appointing suitably qualified consultants. The licensee requests that the date for submission of the trigger levels be increased to six months of the date of grant of licence.

Condition 6.15.4 has specified interim trigger levels to be utilised until the Agency has agreed to trigger levels submitted by the licensee. The Technical Committee recommends the proposed change.

Recommendation:**Amend Condition 6.15.4 as follows:**

*"The licensee shall, within **six months of the date of grant of licence**..."*

Objection No. 3:

Condition 6.15.5 states that *"The licensee shall, within three months of the date of grant of licence, submit to the Agency for its agreement, Ammonia warning and action level values for: (a) storm water entering the storm water retention pond (SRP1), prior to reed bed treatment, and (b) the storm water discharge from the reed bed treatment system to the receiving water (SRP5)".*

The licensee considers the proposed timeframe to be onerous taking into account the totality of reporting required under the PD as well as the lead in time for procuring/appointing suitably qualified consultants. The licensee requests that the date for submission of the warning and action levels be increased to six months of the date of grant of licence.

The OEE completed a scheduled audit of the facility on 23 November 2010 and the following non-compliances were noted:

"Quality of Surface Water Discharge from Site Run-off to Reed-beds (SPR1)

It was noted that results for SPR1 (the inlet from the stormwater pond to the reed bed system) regularly show elevated ammonia, for example, of 73mg/l on the 09/06/10, 70mg/l on the 06/10/10 and 69mg/l on the 31/10/10. Elevated conductivity, COD and chloride was also observed.

The above results indicate frequent contamination of the surface water/run-off that is flowing from the licensed facility to the stormwater pond. Though SPR1 is not a final discharge point for surface water from the site, the results above are of concern as operations onsite should be conducted in a manner whereby clean surface water is sent to SPR1 and contaminated surface water is diverted to the leachate treatment system."

"Quality of Final Surface Water Discharge from Site To River (SPR5)

The following results were recorded at the licensed surface water monitoring point SPR5 (which represents the final surface water outlet from the stormwater retention pond and reedbed system to the river) during 2010: 115.6mg/l ammonia on the 17/02/10; chemical oxygen demand (COD) of 97mg/lO₂ on the 17/02/10; Other Quarter 1 2010 ammonia results include 15mg/l, 14mg/l, 10mg/l; Results recorded in the Biannual Report for July to December 2009 show ammonia NH₄ (N) mg/l peaks of 27, 13, 12, 10, 8.5, 7.8mg/l. On such occasions, the COD ranged from 60 to 115.

The above results indicate frequent contamination of the surface water that is flowing from the reedbeds to the river."

The audit report concludes that the above occurrences are in non-compliance with Conditions 3.14 and 6.5.1.

Taking the above into consideration the Technical Committee does not recommend the proposed change.

Recommendation:

<i>No change</i>

Objection No. 4:

Condition 6.15.6 states that *"The licensee shall, within three months of the date of grant of this licence, submit to the Agency for its agreement a response programme for the exceedance of a trigger, warning or action level value. This response programme shall include such actions as are necessary to ensure there will be no emissions to surface water of environmental significance"*.

The licensee considers the proposed timeframe to be onerous taking into account the totality of reporting required under the PD as well as the lead in time for procuring/appointing suitably qualified consultants. The licensee requests that the date for submission of the response programme be increased to six months of the date of grant of licence.

The OEE have been notified of seven incidences of ELV exceedance to date in 2011 and approximately 51 incidences of ELV exceedance in 2010. An audit completed by the OEE at the facility in December 2008 listed a non-compliance for non-notification of elevated dissolved methane levels to the Agency.

The Technical Committee does not recommend the proposed change.

Recommendation:

<i>No change</i>

Objection No. 5:

Condition 6.16.1 states that “*Within three months of the date of grant of this licence and thereafter as may be proposed by the licensee, the licensee shall submit to the Agency for its agreement revised groundwater monitoring trigger levels in accordance with the requirements of Council Directive 1999/31/EC and having regard to the European Communities Environmental Objectives (Groundwater) Regulations, 2010 (S.I. No. 9 of 2010)*”.

The licensee considers the proposed timeframe to be onerous taking into account the totality of reporting required under the PD as well as the lead in time for procuring/appointing suitably qualified consultants. The licensee requests that the date for submission of the revised trigger levels be increased to six months of the date of grant of licence.

It was identified in the Inspector’s Report that:

- the hydrogeological assessment report and ground water monitoring results have identified increased pollutant concentrations within the groundwater at the facility; and
- the geophysical survey suggests that a leachate plume is increasing over time.

The “Report on the Geophysical Survey for the EPA, W0012-02 Kinsale Road Landfill” referenced in the OEE audit report dated 23 November 2010, states that the groundwater remediation and mitigation measures do not appear to be very effective in the northeast of the landfill and south of the landfill. The audit report states that additional geophysical surveying could be carried out to give a more detailed picture of leachate levels surrounding the landfill and repetition of the survey should be considered in the future to examine any changes in leachate levels and following any remediation measures.

Taking the above into consideration the Technical Committee does not recommend the proposed change.

Recommendation:

<i>No change</i>

Objection No. 6:

Condition 6.16.4 states that “*The licensee shall, within three months of the date of grant of this licence, submit to the Agency for its agreement a revised groundwater conceptual model for the facility, in accordance with BS 10175:2001 or ASTM E1689-95(2008), which identifies potential contaminants, pathways, receptors and includes contour plots (vertical and horizontal) for all identified contaminant plumes. The revised model shall be used to assist in the determination of the Programme of*

Measures specified in Condition 6.16.5 and shall be updated upon completion of the remediation measures and thereafter as required by the Agency”.

The licensee considers the proposed timeframe to be onerous taking into account the totality of reporting required under the PD as well as the lead in time for procuring/appointing suitably qualified consultants, engaging suitably qualified well drilling contractors and analysis of samples. The licensee requests that the date for submission of the revised model be increased to twelve months of the date of grant of licence.

The Technical Committee recommends that the proposed change should not be accommodated for reasons outlined above for Condition 6.16.1.

Recommendation:

<i>No change</i>

Objection No. 7:

Condition 6.16.5 states that:

“The licensee shall within six months of the date of grant of this licence, submit to the Agency for its agreement a detailed programme of remediation measures to be undertaken for groundwater contaminants identified to the east and south-east of the landfill. The programme of measures shall have the objective of:

- (i) limiting the input of pollutants into groundwater;*
- (ii) preventing or reversing, as appropriate, any significant and sustained upward trends in pollutant concentrations;*
- (iii) preventing the deterioration of the status of the groundwater body; and*
- (iv) enhancing the quality of the groundwater body in accordance with the requirements of the Groundwater Directive.*

The licensee shall implement all measures within a timeframe as agreed or as instructed by the Agency”.

The licensee requests that the date for submission of the programme of measures be increased to fifteen months of the date of grant of licence.

The Technical Committee recommends that the proposed change should not be accommodated for reasons outlined above for Condition 6.16.1.

Recommendation:

<i>No change</i>

Objection No. 8:

Condition 12.3.2 states that *“The licensee shall arrange for the completion, by an independent and appropriate qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) to address the liabilities from past and present activities. The assessment shall include those liabilities and costs identified in Condition 10 for execution of the CRAMP. A report on this assessment shall be submitted to the Agency for agreement within twelve months of*

date of grant of this licence. The ELRA shall be reviewed as necessary to reflect any significant change on site, and in any case every three years following initial agreement. The results of the review shall be notified as part of the AER”.

The licensee considers the proposed timeframe to be onerous taking into account the totality of reporting required under the PD as well as the lead in time for procuring/appointing suitably qualified consultants. The licensee requests that the date for submission of the ELRA be increased to eighteen months of the date of grant of licence.

The OEE completed a scheduled audit of the facility on 23 November 2010 and the following non-compliance was noted: *“The Agency is concerned that inadequate management of landfill gas on site as detailed above (and in Observation 1 below) is leading to gas migration from the site, notably at the Blue Demons area and to the North East of the facility towards Greenhills Estate.”*

Taking into consideration the earlier comments outlined in objection no. 3 with regard to leachate contamination of surface water, objection no. 5 in relation to the contamination of groundwater and the above non-compliance regarding the potential for landfill gas migration, the Technical Committee recommends that the proposed change should not be granted. The OEE were consulted on this matter and are in agreement with this recommendation.

Recommendation:

<i>No change</i>

Objection No. 9:

Condition 10.10.1 states that *“The licensee shall prepare, to the satisfaction of the Agency, a fully detailed and costed plan for the closure, restoration and long-term aftercare of the site or part thereof. This plan shall have regard to the commitments given in the application documentation for Licence Register Number W0012-03 (as may be varied herein, or otherwise amended as notified in the AER and approved in writing by the Agency). This plan shall be submitted to the Agency for agreement within six months of the date of grant of this licence”.*

The licensee considers the proposed timeframe to be onerous taking into account the totality of reporting required under the PD as well as the lead in time for procuring/appointing suitably qualified consultants. The licensee requests that the date for submission of the CRAMP be increased to twelve months of the date of grant of licence.

As Condition 10.10.1 is linked to the completion of the requirements of Condition 12.3.2, as discussed above (objection 8), the Technical Committee does not recommend the proposed change.

Recommendation:

<i>No change</i>

Objection No. 10: Operation of the landfill gas flare.

Condition 6.23.5: *"In order to minimise the release of untreated landfill gas at nuisance forming concentrations/volumes, the landfill gas flare shall be capable of operating with a gas support fuel (e.g. natural gas) to allow effective treatment of landfill gas in the event that the landfill gas itself cannot support combustion. Alternative appropriate treatment techniques may be employed with the written prior approval of the Agency"*.

Cork City Council stated that they object in principle to this condition on the grounds that "bad gas" is not combustible. The Council feel that the quantity and quality of the landfill gas available for combustion shall decline with time and at some point in the future the nature of the gas shall be of such poor quality that it will no longer be feasible to utilise or burn it. The Council stated that "bad gas" will be extracted from the site under negative pressure. The Council feel the addition of natural gas or other combustible gases to the mixture would represent a wasteful use of a non renewable resource at an exorbitant cost to the City Council. On exhaustion of the "good gas" available for utilisation or burning Cork City Council propose to liaise with the Agency to discuss alternative appropriate treatment techniques.

The OEE completed a scheduled audit of the facility on 23 November 2010 and noted *"The lack of negative pressure recorded at these wells indicated that the gas was not being abstracted from the ring main system and therefore was not being utilised or flared at the time of inspection as required in the licence"*. The OEE listed the following as a corrective action *"The licensee shall ensure that all landfill gas generated at the facility is either utilised or flared as required in the licence, noting that flaring by definition requires combustion"*.

Condition 6.23.5 allows alternative treatment techniques to be agreed with the Agency as it states that *"...alternative appropriate treatment techniques may be employed on prior approval with the Agency"*. As such the Technical Committee do not recommend a change to this condition.

Recommendation:

<i>No change</i>

Objection No. 11: Surface VOC Emissions.

Condition 6.26.2 (iv) *"Arrangements for the bi-annual preparation of an independent assessment and report on surface VOC emissions at the facility following completion of waste acceptance in any cell/sub-cell"*.

Cork City Council have requested that this Condition is removed as they feel it no longer applies as landfilling of waste at the facility ceased on 16 July 2009. They have also stated that final capping is ongoing and is due for completion by October 2011 at which stage the swale will be fully capped.

Condition 6.26.2 (iv) is part of a list of items to be provided for in the Odour Management Plan which is to be agreed with the Agency within six months of the date of grant of the licence. The requirement to monitor surface VOC emissions is not limited to operational cells but is equally relevant to capped cells. Thus it is not appropriate to delete the condition.

In any event, Condition 6.8 states that *“The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.”*

The Technical Committee does not recommend the proposed change.

Recommendation:

<i>No change</i>

Objection No. 12: Weekly Nuisance Monitoring.

Condition 6.31.1 of the PD states that *“The licensee shall, at a minimum of weekly intervals, inspect the facility and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, mud, dust and odours. The licensee shall maintain a record of all nuisance inspections and any action taken as a result of these inspections”*.

Cork City Council considers this condition to be inappropriate as the facility no longer operates as a landfill site. The Council have no objection to carrying out these inspections on a monthly basis at the civic amenity site and at the proposed waste transfer station site when in operation.

The Technical Committee do not recommend a change to Condition 6.31.1 as scaling down the area of nuisance monitoring or the frequency of monitoring would depend on the potential for nuisances from the civic amenity site and the proposed waste transfer station crossing into the closed landfill area. Also in the future the Council may use weekly nuisance monitoring records as evidence to support a proposed change in accordance with Condition 6.8 which states that *“The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.”*

Recommendation:

<i>No change</i>

Objection No. 13: Closure, Restoration and Aftercare Management Plan.

Condition 10.1 states that *“The licensee shall restore the facility on a phased basis in accordance with the Closure, Restoration and Aftercare Management Plan as agreed under Condition 10.10.1. Unless otherwise agreed, all uncapped areas of the landfill footprint shall be permanently capped by 1st February 2012”*.

Cork City Council stated that they have already capped the northwest part of the site under the existing playing pitch and access road, and will have completely capped the entire area within the swale in the near future. The Council confirmed that the wetland area will remain undisturbed and is in its original state free of waste. The Council also confirmed that the waste underlying the proposed all weather events area in the northern part of the site, the area designated for the City Council depots and the site of the proposed waste transfer station is deemed to be inactive due to its age and currently poses no risk to the environment. The Council stated that in the future if these areas were to be developed a risk assessment would be carried out to determine any mitigation measures that may be required. Cork City Council highlighted that

normal final capping construction involves the placement of subsoil and topsoil over the gas barrier membrane as work progresses and that they are carrying out final capping works in accordance with specified engineering works as approved by the Agency.

If the licensee proposes to depart from the capping specification set out in Condition 10.5, this can be agreed with the Agency. In addition Condition 10.1 allows for the licensee to agree an amended timeframe with the Agency as follows “...*Unless otherwise agreed, all uncapped areas of the landfill footprint shall be permanently capped by 1st February 2012*”. As such the Technical Committee does not recommend a change to this condition.

Recommendation:

<i>No change</i>

Objection No. 14: Schedule C.4.2 Monitoring of Emissions to Sewer.

Schedule C.4.2 requires temperature to be monitored weekly at emission point reference number SD1.

Cork City Council requests that this monitoring requirement be removed as the discharge to sewer at SD1 is approximately 800 linear metres from the leachate conditioning plant and is at ambient temperature.

The Agency issued a Section 52 Request (Waste Management Acts 1996 – 2010) to Cork County Council in order to obtain their consent to the proposed discharge from the activity which involves the discharge of leachate to a sewer. As part of the Section 52 consent Cork County Council specified that temperature was required to be monitored weekly at emission point reference number SD1. As such the Technical Committee do not recommend the proposed change to Schedule C.4.2.

Recommendation:

<i>No change</i>

Objection No. 15: Schedules A to G.

Cork City Council considers the monitoring requirements outlined in Schedules A to G of the PD to be more onerous than those set out in W0012-02. They have confirmed that the landfill ceased accepting waste on 16 July 2009 and the active phase of the landfill will be capped in the near future. They feel the capping works will increase the capture of landfill gas from the site, dramatically reduce the inflow of rainfall to the waste body and accordingly the potential for environmental impacts arising from the facility will be minimised. Cork City Council considers the frequency of monitoring outlined in the PD to be excessive taking into account the mitigation measures, pollution abatement and control technologies put in place by the licensee at considerable expense.

Cork City Council requests that the frequency of monitoring be reduced by 50% (with the exception of annual monitoring) for a period of one year from the date of grant of the licence. Following this period Cork City Council propose to review the results and in agreement with the Agency determine the future monitoring requirements in respect of each of the parameters and associated monitoring frequencies.

The PD requires additional monitoring which includes; amongst other requirements:

- The requirements specified in a Section 52 Consent which was received from Cork County Council.
- Additional storm water monitoring parameters at emission point reference number SRP5 which were put in place due to increased concentrations measured upstream in the system at SRP1.
- Ammonia to be monitored at storm water emissions point reference no. SRP5 due to elevated concentrations of ammonia recorded on occasions in 2009. An "Additional Parameter" entry was also listed for storm water monitoring from SRP5 in order to allow for extra monitoring that may be required if elevated levels of a particular parameter are noted upstream in the system at SRP1.

Taking the above into the consideration the Technical Committee does not recommend a change in the frequency of monitoring outlined in the PD. Cork City Council may utilise Condition 6.8 in the future to request amendments to the frequency of monitoring required by the licence: *"The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results."*

Recommendation:

No change.

Overall Recommendation

It is recommended that the Board of the Agency grant a licence to the applicant

- (i) for the reasons outlined in the Proposed Decision,
- (ii) subject to the conditions and reasons for same in the Proposed Decision, and
- (iii) subject to the amendments proposed in this report.

Signed:



Caroline Connell

Inspector

Environmental Licensing Programme

Office of Climate, Licensing and Resource Use