

MEMO			
TO:	Board of Directors	FROM:	Breege Rooney
CC:		DATE:	5 February 2001
SUBJECT: Wicklow County Council, Ballymurtagh Landfill – Technical Committee Report on Objections to Proposed Decision – Reg. No. 11-1			

Application Details	
Applicant:	Wicklow County Council
Location of Activity:	Ballymurtagh Landfill, Tinnahinch, Co. Wicklow.
Reg. No.:	11-1
Proposed Decision issued on:	22/11/00
Inspector:	Dr. Kevin McDonnell

Objections Received	Date Received
Objection by Applicant: Wicklow County Council Ballymurtagh Landfill Tinnahinch, Co. Wicklow.	19/12/00

Consideration of the Objections.

The Technical Committee (Breege Rooney, Chairperson, Sara Kennelly and Malcolm Doak, committee members) have considered all of the issues raised and this report details the Committee's comments and recommendations following examination of the objections.

Objection No.1: Wicklow County Council (19/12/00)

General

Wicklow County Council (WCC), as operators of Ballymurtagh Landfill, wish to object to certain conditions of the Proposed Decision issued by the Environmental Protection Agency on November 22nd 2000. The objections are set out in the table below, which details the condition in question and the reasons for the objection.

Ground 1 Site Ownership Boundary

Condition 1.2

Waste activities shall be restricted to the area of land outlined in red on Drawing No. Figure No. 2 ‘Site Plan’ of the application. Any reference in this licence to “facility” shall mean the area thus outlined in red.

*The Site Ownership boundary for the site was rechecked and resubmitted in November 1997 in response to the Request by the Agency for additional information (‘Article 14’ replies, Question 2B). A revised drawing **Figure No. 02 Rev. B- “Ownership Map”** was submitted. WCC requests that the reference to Figure No. 2 Site Plan in Condition 1.2 be replaced with reference to Drawing **Figure No. 02 Rev B “Ownership Map” Nov 1997.***

Technical Committee’s Evaluation

A revised drawing Figure No. 02 Rev. B- “Ownership Map” was submitted. This revised map includes the increased working area of the site which was not included in the original map submitted by the applicant. Hence, the Technical Committee recommends amending the reference to the most recently submitted site plan.

Recommendation

Amend Condition 1.2 as follows:

Waste activities shall be restricted to the area of land outlined in red on **Figure No. 02 Rev B “Ownership Map” Nov 1997** of the application. Any reference in this licence to “facility” shall mean the area thus outlined in red.

Ground 2 Notification of the Eastern Regional Fisheries Board

Condition 3.3 (c)

Unless otherwise instructed in writing by the Agency, the licensee shall:

- a) **notify the Agency as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident;**
- b) **submit the written record required by this condition to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident; and**
- c) **notify the Eastern Regional Fisheries Board as soon as practicable and in any case not later than 10:00am on the following working day after such an incident.**

This condition appears only to be relevant for incidents relating to possible discharges to Surface Water or Groundwater. WCC requests that the condition be amended to reflect this.

Technical Committee’s Evaluation

The Technical Committee agrees that the Eastern Regional Fisheries Board only need to be notified about incidents that relate to possible discharges to surface water but not groundwater and recommend that the Condition should be amended to reflect this.

Recommendation

Amend Condition 3.3 c) as per the following:

c) notify the Eastern Regional Fisheries Board, **for incidents relating to possible discharges to surface water**, as soon as practicable and in any case not later than 10:00am on the following working day after such an incident.

Ground 3 Site Office Location

Condition 4.5

The licensee shall provide and maintain an office on the facility, at the location shown in Drawing No. Figure No. 3 ‘Site Plan’. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.

The current location for the Site Office is given in Drawing BALL – EIS – 006 (April 2000) and WCC requests that the reference to Drawing No. Figure No. 3 ‘Site Plan’ be replaced with Drawing No. Ball-EIS-006. A Portakabin type site office may be provided to fulfill the condition of this license: WCC requests that the condition allow for scope to alter the office location with the approval of the Agency.

Technical Committee’s Evaluation

Wicklow County Council (WCC) have moved the civic facilities, offices and entrance from the locations shown in Drawing No. Figure No. 3 ‘Site Plan’. It is understood that WCC may wish to move the site offices when the landfill closes at the end of 2001. The civic waste facility will continue in operation. The Technical Committee (TC) is of the opinion that as long as the site office is located at the facility the Agency will be satisfied. In addition, the TC considers that the use of a portakabin is satisfactory as long as it fulfils all relevant Conditions of the Licence. Hence, the TC recommend amending the Condition accordingly.

Recommendation

Amend Condition 4.5 as follows:

The licensee shall provide and maintain an office **at** the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.

Ground 4 Septic Tank and Secondary Treatment System

Condition 4.11.1

Unless otherwise agreed in advance by the Agency, the licensee shall establish and maintain a septic tank and secondary treatment system at the facility for the treatment of all sewage arising on site. The sewage treatment works shall satisfy the

recommendations set out in the Agency’s guidance document “Wastewater Treatment Manuals – Treatment Systems for Single Houses”.

WCC requests that references to ‘secondary treatment’ and ‘sewage treatment works’ be removed from this condition. WCC requests that this condition refer to: the need for ‘a septic tank and/or small scale wastewater treatment system in accordance the Agency’s guidance document “Wastewater Treatment manuals – Treatment Systems for Single Houses” and to be agreed in advance with the Agency’.

Technical Committee’s Evaluation

WCC in their application refer to a ‘domestic type’ septic tank on site and they also refer to a soakage pit. This Condition requires that domestic effluent from the site be handled in an environmentally acceptable manner. In order to avoid confusion it is recommended that the word ‘septic tank’, ‘secondary treatment system’ and ‘sewage treatment works’ be replaced with the words “treatment system”. This sewage treatment system to be provided, in accordance with the Condition, must satisfy the recommendations set out in the Agency’s guidance document “Wastewater Treatment Manuals – Treatment Systems for Single Houses”

Recommendation

Amend Condition 4.11.1 as follows:

Unless otherwise agreed in advance by the Agency, the licensee shall establish and maintain a treatment system at the facility for the treatment of all sewage arising on site. The treatment **system** shall satisfy the recommendations set out in the Agency’s guidance document “Wastewater Treatment Manuals – Treatment Systems for Single Houses”.

Ground 5 Utilisation of landfill gas as an energy resource.

Condition 4.15.1

Within six months of the date of grant of this licence a proposal for the utilisation of landfill gas as an energy resource shall be submitted to the Agency for its agreement.

Energy Recovery is unlikely to be possible given the low quality and quantity of gas currently being generated at the site. Gas generation is expected to drop further particularly if condition 4.16 is imposed. WCC requests that a feasibility study into energy recovery be submitted to the Agency within the 6 month deadline rather than a proposal.

Technical Committee’s Evaluation

The application contained very little information on the current gas volumes and gas quality for the existing landfill flare at the site. The existing flare was constructed by Wimpey. whose documentation concluded that there are low methane concentrations and low gas volumes but they did not provide figures to back this up. It should also be noted that there is an existing piped landfill gas collection system in operation at the site. So, information needs to be gathered to determine whether Energy Recovery is possible or not. The Technical Committee agrees that a feasibility study is required to determine if the quality and quantity of gas present is sufficient to be used as an energy source. Hence, the Technical Committee recommend amending the condition to include the words “feasibility study” for clarity purposes. In

addition as the word ‘submit’ in the glossary of the licence means “*Unless the context of this licence indicates otherwise, submit in writing to the Agency for its agreement.*” Hence, it is recommended that the words “ for its agreement” are deleted as they are not necessary.

Recommendation

Amend Condition 4.15.1 as follows:

Within six months of the date of grant of this licence a proposal, **including a feasibility study**, for the utilisation of landfill gas as an energy resource shall be submitted to the Agency.

Ground 6 Previously deposited waste

Condition 4.16.1

Within three months of the date of grant of the licence the licensee shall ensure that all previously deposited waste is covered by an intermediate cover of at least 300mm

WCC requests that the definition of ‘previously deposited waste’ be made clear in order to delineate the scope of this condition. WCC further requests that the deadline of 3 months after granting of Licence be extended to 6 months which would allow for final capping to be completed over a significant area of the site as opposed to an intermediate solution.

Technical Committee’s Evaluation

This municipal waste landfill is located within an old pit of the former Avoca Mines. Hence, there are deposits of municipal, commercial and inert waste (old mine waste) on-site. This Condition aims to insure that all completed area are covered with an intermediate cover so as to minimise infiltration of water into the waste; promote surface drainage and maximise run off; control gas migration; and provide a physical separation between waste and plant and animal life. The waste was not deposited into discrete cells therefore the Technical Committee recommend amending the words ‘previously deposited waste’ to completed areas of waste disposal’ and this would include inert, municipal and commercial waste areas.

As there were a number of submissions complaining about flies and odors from this site the Technical Committee do not recommend extending the time frame for the intermediate capping of the waste.

It should be noted that this Condition 4.16.1 requires an intermediate cover of at least 300mm within three months. If the Applicant so wishes he may proceed to the final capping of a significant portion of the site, as requested, within six months as he proposes. The 300 mm intermediate cover required by Condition 4.16.1 will satisfy the top soil requirement (150 – 300mm) as required by Condition 4.16.2 for final capping.

Recommendation

Amend Condition 4.16.1 as follows:

Within three months of the date of grant of the licence the licensee shall ensure that all **completed areas are** covered by an intermediate cover of at least 300mm.

Ground 7 Final Capping System

Condition 4.16.2 Capping

Final capping shall consist of the following:

- (i) **top soil (150 -300mm);**
- (ii) **subsoils, such that total thickness of top soil and subsoils is at least 1m;**
- (iii) **drainage layer of 0.5m thickness having a minimum hydraulic conductivity of 1×10^{-4} m/s;**
- (iv) **compacted mineral layer of a minimum 0.6m thickness with a permeability of less than 1×10^{-9} m/s or a geosynthetic material (e.g. GCL) or similar that provides equivalent protection; and**
- (v) **gas collection layer of natural material (minimum 0.3m) or a geosynthetic layer.**

WCC objects to the final capping system outlined in the Proposed Decision, on the basis that moisture ingress into the waste body will be completely prevented by the proposed capping. This will have a negative impact on the environment by slowing the decomposition of waste, hence prolonging unnecessarily the life of the landfill. WCC requests that this condition be amended to allow capping of the landfill as follows:

Topsoil: 0.2m (0.45m for planted areas)

Clay soil layer: 0.8m

Gas Collection layer: 0.2m

Technical Committee's Evaluation

It is agreed that moisture ingress into the waste body may be reduced by the capping system required. However, this facility was operated as a dilute and disperse system and while the Applicant mentioned the use of 'lined cells', these had not been to any particular specification and as such can not be relied on. Hence, it is imperative that leachate production is reduced as much as possible especially for unlined areas. Satisfactory capping and restoration is an essential step in bringing such sites back into use. Reduction in leachate generation will have a significant positive effect.

The Agency published, in December 2000, a Landfill Manual on Landfill Site Design. This details, in Chapter 10 Capping Design & Construction, the recommended capping system for non-hazardous biodegradable landfills. The capping system required by the Proposed Decision mirrors the system recommended in the Landfill Site Design Manual.

Recommendation

No Change.

Ground 8 Capping of Completed Cells.

Condition 4.16.3

Filled cells shall be permanently capped to the specifications agreed with the Agency in accordance with Condition 4.16.2 within twelve months of the cells having been filled to the required level.

WCC requests that the period allowed for final capping of completed cells be extended from 12 to 18 months.

Technical Committee's Evaluation

As stated above it is imperative that leachate production is kept to a minimum. In order to ensure this filled areas of waste should be permanently capped as soon as possible and in any event no later than twelve months from the date the area is completely filled.

Recommendation

No Change.

Ground 9 Management Plan

Condition 4.17.2

Within six months of the date of grant of this licence the licensee shall establish a management plan for the control of surface water run off from the facility during construction, operation, restoration and potential contingency events. The plan as a minimum shall include

- (i) a storm water retention pond for the collection and storage of surface water from the facility prior to discharge to the perimeter streams via silt traps or a reed bed system,**
- (ii) the installation of an outlet facility for preventing surface water discharges in the event that monitoring should indicate contamination of the surface water,**
- (iii) the prevention of leachate seepage into the surface water drains; and**
- (iv) the collection/diversion of run off arising from capped and restored areas.**

The management plan requested by the Agency will make recommendations as to the preferred means of controlling surface water runoff from the site. Rather than pre-empt the recommendations of such a plan therefore, WCC requests that condition 4.17.2 (1) be amended to read "the need for a storm water retention pond or other measures necessary for collection and storage of..."

Technical Committee's Evaluation

The Technical Committee agree that the preparation of the management plan for the control of surface water run off from the facility should involve assessing the need for a storm water retention pond or other measures.

In addition the Inspector's report details that the Applicant intends to control surface water run-off by the installation of a perimeter drain. It is recommended that this should also be a requirement of the Licence.

Recommendation

Amend Condition 4.17.2 as follows:

Within six months of the date of grant of this licence the licensee shall **submit** a management plan for the control of surface water run off from the facility during construction, operation, restoration and potential contingency events. The plan as a minimum shall include

- (i) **an assessment of the need for a storm water retention pond or other measures** for the collection and storage of surface water from the facility prior to discharge to the perimeter streams via silt traps or a reed bed system,
- (ii) the installation of an outlet facility for preventing surface water discharges in the event that monitoring should indicate contamination of the surface water,
- (iii) the prevention of leachate seepage into the surface water drains;
- (iv) the collection/diversion of run off arising from capped and restored areas **and**
- (v) **the installation of surface water perimeter drains.**

Ground 10 Surface Water Management Plan

Condition 4.17.3

Within twelve months of the date of grant of the licence, the licensee shall implement the surface water management plan.

Some of the measures requested for the Surface Water Management Plan can not be implemented until the closure and restoration phases of the site and hence would not be completed within 12 months of the granting of the Licence. WCC requests that the Surface Water Management Plan be implemented in conjunction with Site Restoration Plan, and along with final capping, and that this 12 month deadline be deleted.

Technical Committee's Evaluation

The Technical Committee agrees that some of the work e.g. the installation of collection/diversion arrangements for run off arising from capped and restored areas must be integrated with the restoration of the facility. The majority of the work, however would need to be completed as soon as possible to control surface water run-off from the facility.

However, the Technical Committee recommended under Ground 9 that the Licensee “submit” a management plan for the control of surface water to the Agency. The word “submit” in the glossary of the PD means “*Unless the context of this licence indicates otherwise, submit in writing to the Agency for its agreement.*” In addition Condition 1.3 of the PD allows the Agency to fix timeframes in relation to plans. Hence, as the Licensee is required to submit the plan under Condition 4.17.2 and Condition 1.3 allows the Agency to fix the timeframe it is recommended that this Condition is deleted as it is covered elsewhere.

Recommendation

Delete Condition 4.17.3 .

Ground 11 Groundwater Discharges

Condition 4.18.1

Within six months of the date of grant of this licence, the licensee shall submit a proposal to the Agency for agreement which will consider the feasibility of controlling

groundwater discharges to the Avoca river taking account of the GSI Hydrogeological Study, February 1994.

WCC requests that rather than a proposal, this condition would seek a feasibility study that would examine possibilities for controlling groundwater discharges and the impacts of same.

Technical Committee's Evaluation

The Technical Committee agree that WCC should submit a feasibility study as part of the proposal required. In addition the TC agree that the proposal should also look at the impact of groundwater discharges as proposed by WCC. The word "agreement" is not necessary as this is required by the word "submit"

Recommendation

Amend Condition 4.18.1 as follows:
Within six months of the date of grant of this licence, the licensee shall submit a proposal to the Agency **to examine** the feasibility of controlling groundwater discharges **and the impact of same on** the Avoca river taking account of the GSI Hydrogeological Study, February 1994.

Ground 12 Waste Input

Conditions 5.2 and 5.6 and Schedule 6

Subject to Condition 5.1, and any requirements of Condition 5.3, only those waste types and quantities listed in Schedule G: Waste Acceptance shall be recovered or disposed of at the facility unless the prior agreement of the Agency has been obtained.

The quantity of wastes to be accepted for disposal at the landfill, shall not exceed 42,000 tonnes per annum.

WCC requests that the Licence be amended to allow the site to be filled expediently and efficiently, allowing the Council to proceed with capping, closure and restoration as required by the Licence with minimum delay. In this respect, WCC requests the following allowance for waste input to the site under Schedule G:

<i>Household</i>	<i>48,000 tpa</i>
<i>Commercial</i>	<i>10,000 tpa</i>
<i>Treated Sludges</i>	<i>2,000 tpa</i>
<i>Total</i>	<i>60,000 tpa</i>

Technical Committee's Evaluation

The Applicant applied for 42,000 tonnes per annum, as referred to in both the application and the EIS, and has not assessed the environmental implications for handling tonnages in excess of 42,000 tonnes per annum. An increase to 60,000 represents an increase of 43% in the annual tonnages applied for. Such an increase would require that a new EIA be completed. As such the Agency would be ultra vires in allowing 60,000 tonnes per annum.

Hence, the Technical Committee do not recommend an increase in the quantity of waste to be handled at this facility.

Recommendation

No change.

Ground 13 Hours of Acceptance of Waste.

Condition 5.9

Waste shall only be accepted at the facility between the hours of 9.00 to 17.00 Monday to Friday inclusive and 9.00 to 13.00 on Saturdays with the exclusion of Bank Holidays.

WCC requests that the hours of acceptance of waste be extended to allow for greater flexibility in operation of the site in a cost-effective manner. This would also serve to increase the amenity value of the site to the civic users area. WCC requests that the following hours of operation be allowable under the Licence: 08:00 – 18:00 Monday to Friday (Summertime), 08:00 – 17:00 Monday to Friday (Wintertime), and 08:00 – 16:00 on Saturday, and that the ‘Working Day’ definition (Interpretation Section) be amended accordingly.

The current working hours allow delivery of waste commencing at 8a.m. which is providing an acceptable situation to local residents, whereby initial traffic has left the landfill in advance of school and commuter traffic beginning.

Technical Committee’s Evaluation

WCC applied for the following times in their application:

9.00 to 17.00 Monday to Friday inclusive and
9.00 to 13.00 on Saturdays.

The EIS states that their hours of opening are:

8.30 to 18.00 Monday to Saturday.

The Technical Committee is of the opinion that the Agency cannot grant an extension of hours beyond those detailed in the EIS.

The working day as defined in the PD is 8.30 a.m. to 6.00 p.m. Monday to Friday. The basis of the working day is to allow a minimum of 30 minutes before and after closing to facilitate preparatory and completion works, such as the removal and laying of daily cover and to generally tidy up the site.

It should be noted that the landfill is due for closure at the end of 2001 but that the civic amenity may operate after the landfill is closed.

Hence, the Technical Committee recommend that:

- a) the definition of the working day should not be altered

- b) that the hours of waste acceptance for Monday to Friday should be extended from 9.00 to 17.30
- c) an extension of hours for waste acceptance for the civic waste facility be extended from 9.00 to 17.30 on a Saturday to facilitate members of the public depositing waste.

Recommendation

Amend Condition 5.9 as follows:
 Waste shall only be accepted at the facility between the hours of 9.00 to **17.30** Monday to Friday inclusive and 9.00 to 13.00 on Saturdays with the exclusion of Bank Holidays. **The Civic Waste Facility may accept waste from 9.00 to 17.30 on Saturdays.**

Ground 14 Times for acceptance of sludge.

Condition 5.14

Treated sewage sludges shall only be accepted at the facility between the hours of 9.00 a.m. and 2.00 p.m. Monday to Friday inclusive. The quantity of sludges to be accepted at the facility, shall not exceed 2,000 tonnes per annum. Sludges shall only be permitted to be disposed of at the facility from producers who hold a disposal permit issued by the licensee. Copies of such permits shall be available for inspection at the facility and shall be presented by the producer on delivery of the sludge consignment to the facility. All sludge shall be covered immediately with other waste.

WCC requests that some operational flexibility be incorporated into the times for acceptance of sludges at the site, by incorporating the condition “between the hours of 9.00am and 2.00pm Monday to Friday inclusive or at other times agreed with the Agency”

Technical Committee’s Evaluation

The Technical Committee consider that sludges must be delivered to the facility between the hours of 9.00 a.m. and 2.00 p.m. Monday to Friday in order to allow for the proper management of the sludge at the facility and to ensure it is adequately covered before the end of the working day.

Recommendation

No Change.

Ground 15 Household hazardous waste.

Condition 5.20

Civic Waste Facility

- a) **Unless the prior agreement of the Agency is given only household waste and waste for recovery shall be accepted at the Civic Waste Facility. The Civic Waste Facility shall only be used by private vehicles. The Civic Waste Facility shall not be used as a transfer station for disposal of waste by commercial waste disposal contractors or local authority waste collection vehicles.**

- b) **The quantity of waste to be accepted at the Civic Waste Facility shall not exceed 10,000 tonnes per annum unless otherwise agreed with the Agency.**
- c) **No hazardous waste (excluding waste oil collected for recovery), asbestos, liquid waste, sludge or offal shall be deposited at the Civic Waste Facility.**

WCC may wish to collect for recovery other household hazardous wastes such as batteries, paints, fluorescent tubes etc. at the Civic Waste Facility, in accordance with the County Waste Plan and the Agency's own policy. WCC requests that Condition 5.20 be amended to reflect this.

Technical Committee's Evaluation

The Technical Committee agree that it is advantageous from an environmental point of view that such waste outlined above is collected at this facility for subsequent recovery or where that is not possible disposal off-site. The Technical Committee recommends amending the Condition accordingly.

Recommendation

Amend Condition 5.20 c) as follows:
No hazardous waste (excluding waste oil **batteries, fluorescent tubes, paint, household chemicals** collected for recovery **or disposal off-site**), asbestos, liquid waste, sludge or offal shall be deposited at the Civic Waste Facility.

Ground 16 Leachate Recirculation

Condition 7.2

No recirculation of leachate or other contaminated water shall be undertaken.

WCC requests that a clause be incorporated into this condition preventing leachate recirculation, by adding the clause "except if agreed in advance by the Agency". This would provide an operational contingency to the site with the aim of averting pollution if unforeseen circumstances arise.

Technical Committee's Evaluation

Recirculation may affect slope stability and in addition the operation of 'lined' areas at this facility has not been to any particular specification and as such can not be relied upon. Hence, the Technical Committee does not recommend allowing recirculation of leachate for this facility.

Recommendation

No change.

Ground 17

Condition 8.1

Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement a revised and updated Restoration and Aftercare Plan for the

facility. The revised plan shall take into consideration the cessation of disposal activities at the landfill facility. The plan should be based on the plan submitted as part of the application. In preparing the Plan the licensee shall have regard to the requirements of the Landfill Directive (1999/31/EC) and the guidance published in the Agency's *Landfill Manual: "Landfill Restoration and Aftercare"*. A schedule detailing the various stages of restoration, including timescales, shall be included in the Plan. The Restoration and Aftercare Plan must include stability assessment of the slopes of the facility and proposed slope stabilisation measures.

Condition 8.2

The restored height of the completed landfill shall be as detailed on Drawings No. 99.007 01 & No. 99.007 02. The Restoration and Aftercare Plan required under Condition 8.1 above shall include for agreement a detailed drawing showing the proposed final profile of the facility and details of the quantities of inert waste and soil to be accepted at the facility for recovery and restoration purposes.

Condition 8.3

Within six months of the date of grant of this licence, the licensee shall submit proposals for landfilling and restoration to achieve the final contours defined in Condition 8.3 to the Agency for its agreement.

There appears to be some repetition of conditions within these three clauses. Condition 8.3 erroneously makes reference to Condition 8.3. WCC requests that these Conditions be reviewed and clarified.

Technical Committee's Evaluation

The requirements of Conditions 8.3 are already covered by Conditions 8.1 and 8.2, hence the Technical Committee recommends deleting Condition 8.3. In addition, in order to avoid any confusion the Technical Committee recommends a number of amendments as detailed below.

Recommendation

<p>Amend Condition 8.1 as follows: Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement a revised and updated Restoration and Aftercare Plan for the facility. The revised Plan shall take into consideration the cessation of disposal activities at the landfill facility. The Plan should be based on the information submitted as part of the application. In preparing the Plan the licensee shall have regard to the requirements of the Landfill Directive (1999/31/EC) and the guidance published in the Agency's <i>Landfill Manual: "Landfill Restoration and Aftercare"</i>. A schedule detailing the various stages of restoration, including timescales, shall be included in the Plan. The Restoration and Aftercare Plan must include stability assessment of the slopes of the facility and proposed slope stabilisation measures.</p> <p>Amend Condition 8.2 as follows (i.e. last line is deleted): The restored height of the completed landfill shall be as detailed on Drawings No. 99.007 01 & No. 99.007 02.</p> <p>Delete Conditions 8.3</p>
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Ground 18 Restoration

Condition 8.8

The restoration of the landfill facility shall be completed within two years of the date of grant of this licence, unless otherwise agreed with the Agency.

The deadline set by this condition requires complete restoration within 2 years of the grant of the Licence which does not appear feasible or realistic because:

- (a) the final profile has not yet been reached, and*
- (b) even after cessation of filling, certain elements of the earthworks, landscaping, planting etc. associated with restoration are dependent on seasonal factors and weather conditions, meaning a minimum one-year period would be required to complete restoration.*

Therefore WCC requests that this condition be amended to require completion of the restoration plan “within two years after cessation of filling operations”

Technical Committee’s Evaluation

The Technical Committee agrees that restoration should be completed within two years of cessation of disposal activities. Hence, the Technical Committee recommends amending the Condition.

Recommendation

Amend Condition 8.8 as follows:
The restoration of the landfill facility shall be completed within two years **after the cessation of disposal activities**, unless otherwise agreed with the Agency.

Ground 19 Gas monitoring Locations

Condition 9.2

Within six months from the date of grant of this licence, the licensee shall install additional monitoring locations to detect off-site migration of landfill gas where the facility boundary adjoins residential properties.

WCC requests that the clause “additional monitoring points as required” be included in this Condition, reflecting the fact that a number of gas monitoring points have already been installed to satisfy the condition.

Technical Committee’s Evaluation

There were a number of submissions in relation to odours from gas from this site. Hence, the Condition requires additional gas monitoring locations where the facility boundary adjoins residential properties in order to monitor the situation. The Technical Committee do not recommend amending this Condition.

Recommendation

No change.

Ground 20 Monitoring Surface Water Discharges.

Condition 9.5

Within six months from the date of grant of this licence, the licensee shall implement a monitoring programme for both the surface water discharged from the facility (and the flow in the discharge streams and rivers) with reference to Condition 4.17. The programme shall, at minimum, include and fulfil the requirements of Schedule E.4: Surface Water Monitoring.

Monitoring of the surface water discharges from the site may be difficult and in some cases given the historical and mining aspects of the site – may not be relevant to the environmental impact of the landfill. WCC requests that the monitoring programme on discharge streams and rivers be implemented ‘where relevant and possible’ or alternatively in agreement with the Agency.

Technical Committee’s Evaluation

WCC should aim to carry out the work as specified in the Condition. If the Council experience difficulties implementing the monitoring this Condition can be modified under Condition 9.9 of the Licence.

Recommendation

No change.

Ground 21 Commencement of Environmental Monitoring

Condition 9.11

Unless otherwise specified by this licence, all environmental monitoring shall commence no later than two months after the date of grant of this licence.

The deadline of this condition (2 months to commence all monitoring) appears to contradict other conditions where a 3-month deadline is imposed. WCC requests that this Condition allow a 3 month deadline for the commencement of monitoring.

Technical Committee’s Evaluation

Conditions 9.2, 9.4, and 9.5 specify different dates for commencement of monitoring specific areas than the two month date specified in Condition 9.11. However, Condition 9.11 contains the clause ‘unless otherwise specified by this licence’. Hence, there is no conflict in commencement times for monitoring, as all monitoring in accordance with Condition 9.11, must commence no later than two months after the date of grant of licence unless there is another Condition specifying an earlier or later date for monitoring specific emissions.

Recommendation

No change.

Ground 22 Assessment of the ecology of the restored landfill

Condition 9.13

An annual assessment of the ecology of the restored landfill and adjoining habitats shall be undertaken and submitted to the Agency. The scope, content and details of the contractor carrying out the assessment shall be submitted to the Agency for its agreement on an annual basis prior to the assessment.

It is considered than an annual assessment of ecology is unnecessarily frequent for the purpose of determining the success of the site restoration plan. WCC requests that the following frequency be inserted into the Condition: an annual assessment for the first three years, and thereafter every 3 years following restoration of the site.

Technical Committee’s Evaluation

The Technical Committee considers that it is important to monitor the development of plants and animals within one year of cessation of waste acceptance at the landfill.. Hence, the Technical Committee recommend amending this Condition accordingly. In addition a progress report on the ecology of the restored landfill should be reported annually in the Annual Environmental Report.

Recommendation

Amend Condition 9.3 as follows:
 An assessment of the ecology of the restored landfill and adjoining habitats shall be undertaken and submitted to the Agency **within one year of cessation of waste acceptance at the landfill**. The scope, content and details of the contractor carrying out the assessment shall be submitted to the Agency for its agreement prior to the assessment. **A progress report on the ecology of the restored landfill should be reported annually in the Annual Environmental Report.**

Include in Schedule B: Content of the Annual Environmental Report.
Progress report on the ecology of the restored landfill.

Ground 23

Schedule F5

Emission Limits Values for Landfill Gas Flare and/or Utilisation Plant

Emission Point reference nos: (to be agreed with the Agency)

Location: Landfill Gas Combustion Plant and flarestacks

Volume to be emitted:3000m³/hr

Minimum discharge height:5m

Parameter	Emission Limit Value
Nitrogen oxides as (NO ₂)	500 mg/m ³
CO	650 mg/m ³
Particulates	130 mg/m ³
TA Luft Organics Class I ^(Note 1)	20 mg/m ³ (at mass flows > 0.1 kg/hr)
TA Luft Organics Class II ^(Note 1)	100 mg/m ³ (at mass flows > 2 kg/hr)
TA Luft Organics Class III ^(Note 1)	150 mg/m ³

	(at mass flows > 3kg/hr)
Hydrogen Chloride	50 mg/m ³ (at mass flows > 0.3 kg/h)
Hydrogen Fluoride	5 mg/m ³ (at mass flows > 0.05 kg/h)

Note 1: In addition to the above individual limits, the sum of the concentrations of Class I, II and III shall not exceed the Class III limits.

The volume to be emitted from the landfill gas combustion plant (3,000 m³/hr) appears to be erroneously high. WCC requests that the volume to be emitted from the landfill gas flare be agreed with the Agency.

Technical Committee's Evaluation

There was no details provided in the application on the volumes of gas to be emitted from the gas flare. Schedule E.6 Landfill Gas Flare / Combustion Plant requires that the volumetric flow rate of the gas flare be monitored biannually. Hence, the Technical Committee recommends that the volume of gas to be emitted from the gas flare should be less than 3000m³/hr.

Recommendation

Amend Schedule F5 as follows:
Volume to be emitted: **Less than** 3000m³/hr.

Ground 24

Schedule G

Table G.1 Waste Categories and Quantities

WASTE TYPE	MAXIMUM TONNES PER ANNUM
Household	40,000
Treated Sludges	2,000
TOTAL	42,000

WCC requests that the Licence be amended to allow the site to be filled expediently and efficiently, allowing the Council to proceed with capping, closure and restoration as required by the Licence with minimum delay. In this respect, WCC requests the following allowance for waste input to the site under Schedule G.

*Household 48,000 tpa
Commercial 10,000 tpa
Treated Sludges 2,000 tpa
Total 60,000 tpa*

Technical Committee's Evaluation

See Response to Ground 12

Recommendation

No Change

Signed: _____
Breege Rooney
Technical Committee Chairperson