

W0146-02

Applicant
Valid
Sub

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Waste Licence Review WL 0146-02

Knockharley Landfill, Knockharley, Navan, County Meath

Submission by Licensee Greenstar

20th July 2009

Introduction

This submission is made in response to the Agency's correspondence dated 18th June 2009 and addresses proposed amendments to the following conditions.

Conditions 1.6 and 11.3 which relate to waste treatment;

Conditions 4.3.1, 5.4, 5.6.1, 5.9.5, 6.10, 6.12, 7.1, 8.14.2, Schedules C.5, D.7 & D.9 which relate to matters including odour management;

Conditions 1.8.1.3, 1.5, Schedule A which relate to waste acceptance; and

Condition 11.7.1 which relates to reporting.

Conditions Relating to Waste Treatment

Licence Condition 1.6

Existing Wording:

The Licensee shall ensure that all waste accepted at the facility is subject to treatment. This provision may not apply to inert waste for which treatment is not technically feasible, nor to any other waste for which such treatment does not contribute to the objectives of the landfill directive as set out in Article 1 of the Directive by reducing the quantity of the waste or the hazard to human health or the environment.

Proposed Wording:

No Change

Reason for No Change:

Knockharley landfill has been accepting treated waste in compliance with this condition and in compliance with the landfill directive since its opening in December 2004. The Landfill Directive already defines treatment as "the physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery". There is therefore no regulatory compliance need to review this condition.

It is understood from correspondence from the EPA dated 18th June 2009 that the Agency intends to review this licence mainly for the purposes of addressing the “*newly elaborated limits on the acceptance of biodegradable municipal waste at landfill*” ... “*which have been published in **Municipal Solid Waste - Pre-treatment and Residuals Management: An EPA Technical Guidance Document***”

The BMW ‘limits’ in question are set out in Figure 8 of the technical guidance document as 40% by weight of MSW accepted at the landfill facility for disposal in 2010, 2011, 2012; 24% by weight of MSW accepted at the landfill facility for disposal in 2013, 2014, 2015; and 15% by weight of MSW accepted at the landfill facility for disposal in 2016 and subsequent years.

Firstly these limits are based on old calculations that fail to take into account the most recent ESRI economic forecasts and the associated downturn in waste arisings. As a result, if these levels of BMW diversion were forced on every landfill in the state, the required levels of over-compliance, and the investment that would entail, would be significantly disproportionate to the actual Landfill Directive targets. This is not a reasonable expectation, particularly in these times of economic distress and limited fund availability.

Secondly, these limits make no reference to diversion of BMW through recycling and provide a disincentive to any operator to invest in recycling technologies over and above what is already present in the baseline calculation. These limits provide an inequitable pressure on landfill operators to ensure that increasing amounts of BMW is stabilised prior to disposal in the void but it provides no benefit to landfill operators with separate recycling facilities who wish to increase recycling standards in the waste stream outside of the landfill facility boundary as diversion is not counted in this wording. The limits apply to landfill operators only and there is no mechanism for encouraging waste operators without landfills to increase BMW treatment or recycling.

Thirdly, the devolution, to a small number of landfill operators, of a Member State obligation to reduce BMW to landfill is in itself a disproportionate, inequitable, and inappropriate last-minute response to a failure by the State to create the planning and commercial environment conducive to the provision of infrastructure for biodegradable waste treatment in advance of the EU deadlines.

Fourthly, the restriction of biodegradable waste at landfill, in the absence of identifiable appropriately licensed and planning permitted alternatives, is contrary to the Agency’s obligations to environmental protection.

Furthermore, in the absence of appropriate enforcement protocol, it is not possible to understand how these conditions are to be enforced. Indeed, new conditions to restrict biodegradable waste at landfills applied, in a vacuum, without any regulatory link to the rest of the waste hierarchy or to waste collection regulations, must be considered to be unenforceable, and hence flawed.

Licence Condition 11.3

Existing Wording:

“Within twelve months of the date of grant of this licence, a report examining waste recovery options shall be submitted to the Agency for its agreement. This report shall address methods to contribute to the achievement of the recovery targets stated in national and European Union waste policies and shall include the following:-

- a) Proposals for the contribution of the facility to the achievement of targets for the reduction of biodegradable waste to landfill, going to landfills as specified in the Landfill Directive.
- b) The separation of recyclable materials from the waste.
- c) The recovery of Construction and Demolition Waste.
- d) The recovery of commercial waste, including cardboard.
- e) composting of biodegradable or green waste at the facility having regard to good practice and sustainability; and
- g) Report on how the requirements of Condition 1.6 regarding treatment of waste will be met.

Proposed Wording

Rather than amend conditions in landfill licences relating to waste treatment, it would be more appropriate to strengthen the wording of Condition 11.3 to require the annual reporting of known waste recovery rates related to accepted wastes.

Conditions Relating to Matters Including Odour Management

Licence Condition 4.3.1

Existing Wording:

"The final capping shall consist of the following:-

- a) *Top soil (150 – 300mm);*
- b) *Subsoils, such that total thickness of top soil and subsoils is at least 1m;*
- c) *Drainage layer of 0.5m thickness having a minimum hydraulic conductivity of 1×10^{-4} m/s or an equivalent geosynthetic layer;*
- d) *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*
- e) *Gas collection layer of natural material (minimum 0.3m) or a geosynthetic layer."*

Proposed Wording:

"The final capping shall consist of the following:-

- a) *Top soil (150 – 300mm).*
- b) *Subsoils, such that total thickness of top soil and subsoils is at least 1m;*
- c) *Drainage layer of 0.5m thickness, having a minimum hydraulic conductivity of 1×10^{-4} m/s, or equivalent agreed by the Agency*
- d) *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*
- e) *Gas collection layer of natural material (minimum 0.3m), a geosynthetic layer or equivalent agreed by the Agency."*

Reason for Change:

The proposed minor changes will allow Greenstar to employ a capping infrastructure that will incorporate suitable Agency approved materials depending on factors such as availability, cost and current best practice. The landfill will be capped in phased stages over a period of a number of years and during this time there will inevitable changes in what procedures

constitute BAT in terms of landfill capping. These minor changes to the licence condition wording will allow both Greenstar and the Agency to ensure that the most suitable capping systems are employed without the future need for further lengthy technical amendment or licence review procedures to be undertaken, and also improve future gas and odour management programmes at the facility.

Licence Condition 5.4

Existing Wording:

"All wastes shall be checked at the working face. Any wastes not suitable for acceptance shall be removed for recovery or disposal at an appropriate alternative facility. Such waste shall be stored in the Waste Quarantine Area only. No waste shall be stored in the Waste Quarantine Area for more than one month."

Proposed Wording:

"All wastes shall be checked at the working face. Any wastes not suitable for acceptance shall be removed for recovery or disposal at an appropriate alternative facility. Such waste shall be stored in the Waste Quarantine Area only. No malodorous waste shall be stored in the Waste Quarantine Area for more than one month with any other un-suitable waste stored for a maximum of six months."

Reason for Change:

Only small quantities of non-conforming wastes are detected at the facility, which are most commonly tyres, batteries and gas bottles. Due to the relatively low weight and quantity of these materials that are discovered it can be difficult to arrange uplift of these materials for recovery on the basis that regular trips to a landfill by a recovery operator to uplift minimal quantities is not cost or environmentally beneficial. It is therefore proposed that, if the material is not malodorous the storage limit is extended to a maximum of six months which will allow more practicable quantities to be collected.

Licence Condition 5.6.1

Existing Wording:

"Unless the prior agreement of the Agency is given, the following shall apply at the landfill:-

- a) Only one working face shall exist at the landfill at any one time for the deposit of waste other than cover or restoration materials; and*
- b) The working face of the landfill shall be no more than 2.5 metres in height after compaction, no more than 25 metres wide and have a slope no greater than 1 in 3."*

Proposed Wording:

"Unless the prior agreement of the Agency is given, the following shall apply at the landfill:-

- a) Only one working face shall exist at the landfill at any one time for the deposit of waste other than cover or restoration materials; and*
- b) The working face of the landfill shall be no more than 3.5 metres in height after compaction, no more than 35 metres wide and have a slope no greater than 1 in 3."*

Reason for Change:

The current licence wording restricting the width and height of the working face creates a health and safety issue. In order to allow two vehicles to eject or tip simultaneously a safe working face width of 35 metres is required to ensure that there is adequate room between vehicles with regard to the safe opening and closing of tailgates and to allow sufficient room between vehicles should one require to be towed clear from the working face. It is also important to ensure that there is adequate width to allow vehicles to reverse onto the working face safely.

Furthermore, an increase in the working height of the working face to 3.5 metres would allow the length of the working face to be decreased, minimising the potential for other nuisances, such as scavenging birds and odour nuisances.

Licence Condition 5.9.5

Existing Wording:

"Filled cells shall be permanently capped within twelve months of the cells having being filled to the required level."

Proposed Wording:

"Filled cells shall be permanently capped within twenty four months of the cells having being filled to the required level."

Reason for Change:

The current requirement to place an engineered cap on a cell within twelve months of filling the cell to the required places undue risk on the long term integrity of the cap. This is due to initial rapid settlement of the waste body during this period meaning that, if a permanent cap was placed, it would inevitably be damaged with the potential to cause undue nuisance, including odours and costly repairs.

A period of twenty four months is considered more suitable to allow sufficient time for stabilisation of the waste mass to occur, ensuring that the risk of damage to the engineered cap is minimised. Even with careful planning, any final capping placed will require the removal of sections of gas collection infrastructure for periods of time which could cause unnecessary odour nuisance. Any area of the site that is filled to required levels will have suitable temporary capping installed to ensure that the potential for nuisance is minimised. The proposed change is also in accordance with the EPA Landfill Operation Practices Manual (1997), Section 4.7 which advises that, due to the effects of settlement, permanent capping systems should not be installed until significant settlement has ceased. The Landfill Operation Practices Manual also states that *"it is preferable to place a temporary cap of low permeability material over the filled area. This should be laid to a fall in order to allow water to shed. Once the initial settlement rate has slowed, usually within the first five years after completion of filling, the temporary cap can be removed."* The proposed change would also bring the Knockharley licence into line with other similar licences, such as W0201-02 (Drehid) and W0081-03 (KTK)

Condition 6.10

Existing Wording:

"The licensee shall, not later than twelve months after the initial receipt of waste at this facility, submit proposals including timeframes to the Agency for agreement to undertake and independent odour assessment. The odour assessment shall include but is not limited to the identification and quantification of any significant odour sources, an assessment of the suitability and adequacy of the control system(s) for odour sources and timescale for the assessment."

Proposed Wording:

"Odour Control

- 6.10.1 *The licensee shall, not later than six months after the implementation of this condition undertake an independent odour assessment and prepare an odour management plan. The odour assessment shall include but is not limited to the identification and quantification of any significant odour sources, an assessment of the suitability and adequacy of the control system(s) for preventing or minimising impact on sensitive receptors. The Odour Management Plan shall include measures and a timescale for the implementation of recommendations from the Odour Assessment. These proposals shall include VOC surface emissions surveys with trigger levels for target values subject to approval with the Agency.*
- 6.10.2 *The licensee shall, within three months of the date of grant of this waste licence, submit a programme and plan to the Agency for its agreement for the monitoring and assessment of odours arising from the facility, including the odour monitoring specified in Schedule D of this waste licence."*

Reason for Insertion:

This condition is based on the wording of conditions 6.10, 6.11 and 8.14 of W0146-01 (Knockharley). In addition it provides for the monitoring of VOC surface emissions monitoring measures to ensure as much as practicably possible that fugitive VOCs are being captured thus reducing potential for odour nuisance.

Condition 6.12

Existing Wording:

"The licensee shall install a continuous VOC monitor with directional information at the school (if agreed) otherwise at a location on a site agreed with the Agency. This requirement will be reviewed by the Agency on an annual basis."

Proposed Wording:

Remove condition

Reason for Change:

Despite numerous attempts by Greenstar (between October 2005 – May 2007) both verbal and written, to agree a location for the installation of a continuous VOC monitor at the school, we have been unable to obtain a confirmed location for this installation from the school board. Furthermore, Greenstar suggests that the installation of a VOC monitor at a location approximately 1km from the landfill would be subject to interference from a number of VOC sources (including both farm and road traffic)) that its usefulness would be questionable. And hence any results obtained would be unreliable. It is therefore proposed that this condition is removed from the licence

Condition 7.1

Existing Wording:

“The licensee shall ensure that vermin, birds, flies, mud, dust, litter and odours do not give rise to nuisance ant the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.”

Proposed Wording:

“Emissions from the activities shall be free from odour at levels likely to cause significant odour annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures agreed with the Agency under condition 8.1.4 to prevent or, where that is not practicable, to minimise the odour.

The licensee shall ensure that birds, vermin, dust, mud and flies do not cause pollution and are managed in accordance with the requirements of this waste licence.”

Reason for Change:

The suggested wording in relation to odour is based on that used by the Environment Agency (England and Wales) in the licensing of waste facilities. The wording obliges the operator to keep the facility free from odour annoyance or to prevent odour as much as is practicable using Best Available Techniques.

Proposed accompanying change to Glossary of Definitions

Odour Annoyance: The factors which determine odour annoyance, known as the FIDOL factors, are summarised as follows:

- Frequency of exposure
- Intensity of exposure
- Duration of exposure
- Offensiveness/Character of odours
- Location of exposure

Proposed changes to Schedule D of this waste licence intend to substantially increase the monitoring obligation of licensees in a manner that allows the application of the FIDOL principles in the scientific determination of odour annoyance using methodologies accepted as BAT in other European Countries and which are currently the subject of draft CEN guidance.

Schedule D.9

Existing Wording:

None

Proposed Wording:

"Table D.9.1 Odour Monitoring Frequency and Technique

Parameter	Monitoring Frequency	Analysis Method / Technique
Odour	Bi-annually ^{Note 2}	^{Note 1}

Note 1: Monitoring shall be carried using a method described in the Draft CEN Standard CEN/TC264/WG2 or any replacement standard, to the agreement of the Agency.

Note 2: Monitoring to commence within six months of the commencement of disposal of waste and thereafter on a bi-annual basis."

Reason for Change:

To ensure that the methodology for assessing ambient odour is based on Best International Practice and Best Available Techniques

Condition 8.14.2

Existing Wording:

"The licensee shall within ~~three~~ months of the date of commencement of waste disposal activities submit a programme to the Agency for agreement for the monitoring and assessment of odour emissions arising from the facility"

Proposed Wording:

See new wording for Condition 6.10

Schedule C.5

Existing Wording:

"Emission Point Reference numbers: To be agreed with the Agency

Location: Landfill Gas combustion plant and flarestacks

Volume to be emitted: 3000m³/hr (unless otherwise agreed with the Agency)

Minimum discharge height: 5m

Parameter	Emission Limit Value ^(Notes 3 & 4)
Nitrogen Oxides (NO _x)	500 mg/m ³ (150mg/m ³) ^{Note 1}
CO	650 mg/m ³ (50 mg/m ³) ^{Note 1}
Particulates	130 mg/m ³
TA Luft Organics Class I ^(Note 2)	20 mg/m ³ at mass flows > 0.1kg/hr (Not applicable) ^{Note 1}
TA Luft Organics Class II ^(Note 2)	100 mg/m ³ at mass flows > 2 kg/hr (Not applicable) ^{Note 1}
TA Luft Organics Class III ^(Note 2)	150 mg/m ³ at mass flows > 3 kg/hr (Not applicable) ^{Note 1}
Total Organic Carbon (TOC)	10 mg/m ³
Hydrogen Chloride	50 mg/m ³ at mass flows > 0.3 kg/hr
Hydrogen Flouride	5 mg/m ³ at mass flows > 0.05 kg/hr

Note 1: Emission limit values in brackets represent limit values for flare units.

Note 2: In addition to the above individual limits, the sum of concentrations of Class I, II and III shall not exceed Class III limits.

Note 3: These emission limit values may be revised with the agreement of the Agency on the basis of the technology employed.

Note 4: Dry gas referenced to 5% oxygen by volume for utilisation plants and 3% oxygen by volume for flares"

Proposed Wording:

"Emission Point Reference numbers: To be agreed with the Agency

Location: Landfill Gas Utilisation Plant and/or flare

Minimum discharge height: 5m (unless otherwise agreed with the agency)

Parameter	Flare	Utilisation Plant
	Emission Limit Value ^{Note 1,2}	Emission Limit Value ^{Note 1,2}
Nitrogen Oxides (NO _x)	150 mg/m ³	500 mg/m ³
CO	50 mg/m ³	1400 mg/m ³
Particulates	Not applicable	130 mg/m ³
Total Organic Carbon (TOC)	10 mg/m ³	Not applicable
Total VOCs	Not applicable	1000 mg/m ³
Total Non-Methane VOCs	Not applicable	75 mg/m ³

Note 1: Dry gas referenced to 5% oxygen by volume for utilisation plants and 3% oxygen by volume for flares.

Note 2: The emission limit values may be revised with the agreement of the Agency on the basis of the technology employed."

Reason for Change:

It is proposed to remove the restriction of 3000m³/hr on the volume to be emitted. Whilst gas modelling by independent consultants has indicated that the expected maximum LFG production will be in the region of 3000m³/hr for Knockharley, it is possible that this could increase to a higher figure due to a number of factors including changes in waste composition and future leachate re-circulation activities. The proposed change will also facilitate the use of suitable, on-site flaring capacity during any periods of downtime of the LFG utilisation engines. Greenstar will regularly update the LFG projections and ensure that the required flaring/utilisation capacity to deal with LFG produced by the landfill is installed at all times.

The existing ELV of 650 mg/m³ of CO for utilisation plants is not best practice technology currently available on the market and is therefore an unrealistic value. The proposed increase

to 1400 mg/m³ represents an increase to an achievable limit and would bring the Knockharley licence into line with other recently issued licences such as W0081-01 (KTK) and W0201-02 (Drehid) and also represents compliance with the UK Environment Agency "Guidance for Monitoring Landfill Gas Engine Emissions" (LFTGN 08).

Schedule D.7, Table D.7.1

Existing Wording:

"Table D.7.1 Landfill Gas Utilisation Plant/Enclosed Flare Parameters and Monitoring Frequency

Parameter	Flare (enclosed) Monitoring Frequency	Utilisation Plant Monitoring Frequency	Analysis Method / Technique ^{Note 1} _{Note 2}
Inlet			
Methane (CH ₄) % v/v	Continuous	Weekly	Infrared analyser / flame ionisation detector / thermal conductivity
Carbon Dioxide (CO ₂) % v/v	Continuous	Weekly	Infrared analyser / thermal conductivity
Oxygen (O ₂) % v/v	Continuous	Weekly	Electrochemical / thermal conductivity
Total Sulphur	Annually	Annually	Ion chromatography
Total Chlorine	Annually	Annually	Ion chromatography
Total Fluorine	Annually	Annually	Ion selective electrode
Process Parameters			
Combustion Temperature	Continuous	Quarterly	Temperature Probe / datalogger
Outlet			
CO	Continuous	Continuous	Flue gas analyser / datalogger
NO _x	Annually	Annually	Flue gas analyser
SO ₂	Annually	Annually	Flue gas analyser
Particulates	Not applicable	Annually	Isokinetic / Gravimetric
TA Luft Class I, II, III	Not applicable	Annually	Adsorption / Desorption / GC / GCMS ^{Note 3}
Organics			
TOC	Annually	Not applicable	Flame Ionisation
Hydrochloric Acid	Annually	Annually	Impinger / Ion Chromatography
Hydrogen Fluoride	Annually	Annually	Impinger / Ion Chromatography

Note 1: All monitoring equipment used should be intrinsically safe.

Note 2: Or other methods agreed in advance with the Agency.

Note 3: test methods should be capable of detecting acetonitrile, dichloromethane, tetrachloroethylene and vinyl chloride as a minimum"

Proposed Wording:

“Table D.7.1 Landfill Gas Utilisation Plant/Enclosed Flare Parameters and Monitoring Frequency

Parameter	Flare (enclosed) Monitoring Frequency	Utilisation Plant Monitoring Frequency	Analysis Method / Technique ^{Note 1}
Inlet			
Methane (CH ₄) % v/v	Continuous	Continuous	Infrared analyser or equivalent approved
Carbon Dioxide (CO ₂) % v/v	Continuous	Weekly	Infrared analyser or equivalent approved
Oxygen (O ₂) % v/v	Continuous	Weekly	Electrochemical or equivalent approved
Process Parameters			
Combustion Temperature	Continuous	Continuous	Temperature Probe / datalogger
Residence Time	Weekly	Quarterly	To be agreed
Outlet			
CO	Annually	Annually	Flue gas analyser / datalogger
NOx	Annually	Annually	Flue gas analyser or equivalent approved
SO ₂	Annually	Annually	Flue gas analyser or equivalent approved
Particulates	Not applicable	Annually	Isokinetic / Gravimetric or equivalent approved
TOC	Annually	Annually	Flame Ionisation

Note 1: All monitoring equipment used should be intrinsically safe.”

Reason for Change:

The proposed changes for Table D.7.1 should be read in conjunction with the changes proposed for Schedule C.5. These changes will ensure consistency within the licence, bring the licence conditions into line with other recently issued licences, such as W0081-03 (KTK) and W0201-02 (Drehid) and also represents compliance with the UK Environment Agency “Guidance for Monitoring Landfill Gas Engine Emissions” (LFTGN 08).

Furthermore it is proposed that the continuous exhaust monitoring requirement for Carbon Monoxide (CO) for both engines and flares be removed from the monitoring schedule. Current available methods for this type of sampling have been shown to be entirely unreliable as it is extremely difficult, if not impossible, to obtain a continuous sample for analysis due to the extreme temperatures involved, the length of, and the constant blocking of pipework.

Conditions Relating to Waste Acceptance

Licence Condition 1.8.1.3

Existing Wording:

"Waste shall not be accepted at the landfill on Sundays or on Bank Holidays."

Proposed Wording:

"Waste shall not be accepted at the landfill on Sundays or on Public Holidays."

Reason for Change:

The current wording prevents the site from opening on Good Friday, a bank holiday (but a normal working day for most industries and sectors) during the Easter holiday period. This results in waste being delivered to site that has been collected and stored in transfer stations during this period and significantly increases the potential for odours to be released during on-site deposition operations. The proposed wording change will assist the site with regard to the management of odours and also ensure that waste is collected and disposed of promptly, minimising any public health implications.

Schedule A: Waste Acceptance

Existing Wording:

"A.1 Waste Acceptance, Table A.1 Waste Categories and Quantities"

Waste Type	Maximum (Tonnes Per Annum)
Household	100,000
Commercial	45,000
Industrial	30,000
Subtotal Waste for Disposal	175,000
Construction & Demolition for Recovery at the Facility	25,000
TOTAL	200,000

Proposed Wording:

"A.1 Waste Acceptance, Table A.1 Waste Categories and Quantities"

Waste Type	Maximum (Tonnes Per. Annum) <small>Notes 1&2</small>
Household	100,000
Commercial	45,000
Industrial	30,000
Subtotal Waste for Disposal	175,000
Construction & Demolition <small>Note 3</small>	25,000
TOTAL	200,000

Note 1: The tonnage of household waste, commercial waste and industrial waste may be altered with the prior agreement of the Agency provided the total amount of these wastes accepted at the facility does not exceed the combined tonnage of 175,000 tonnes per annum (as specified in the total above)

Note 2: C&D or Inert waste/secondary materials or compost imported to the site for use in construction and waste covering operations. A detailed statement (with mass balance) of waste used in construction and covering operations should be included as part of the AER

Note 3: This waste stream may include asbestos for disposal in accordance with Section 2.3.3 of the Annex to the Council Decision 2003/33/EC

Reason for Change:

Please refer to the Waste Licence Application (W0146-03) and accompanying EIS submitted to the Agency in December 2008 for full details on proposed tonnage increase to 400,000tpa

Asbestos (Stabilised Non-Reactive)

Existing Wording:

None

Proposed Wording:

"Asbestos Waste

- c) Asbestos waste to be disposed of at the facility shall comply with the requirements of Article 6(c)(iii) of the Landfill Directive (1999/31/EC) and be accepted and managed in accordance with the procedures laid down in Section 2.3.3 of the Annex to Council Directive 2003/33/EC.*
- d) Asbestos waste must be double wrapped in heavy gauge plastic, which is clearly labelled to indicate the presence of asbestos.*
- e) Disposal of asbestos waste shall be into prepared bays or trenches of at least 2 metres in depth.*
- f) Deposited asbestos waste shall be covered immediately with at least 250mm of suitable material. At the end of the day, the waste shall be covered with a minimum of 500mm of suitable material.*
- g) No asbestos waste shall be present within 2.5 metres of the final surface levels.*
- h) The amount of waste containing asbestos shall be limited to an annual maximum of 10,000 tonnes of total waste intake for the landfill."*

Reason for Insertion:

This proposal for asbestos acceptance is in accordance with the licence application currently with the Agency and submitted by Greenstar in December 2008.

The closure of KTK landfill in October 2008 means that there are now no suitable disposal facilities for asbestos in Ireland resulting in increased fly-tipping of the material and costly export for disposal abroad which is in contrast to national waste policy and the proximity principle. Knockharley could provide a much needed outlet for at least some of the current asbestos waste arisings in Ireland.

Asbestos Definition

Existing Wording:

None

Proposed Wording:

Asbestos Waste: Construction Materials Containing Asbestos deemed to meet the criteria of a stable non-reactive hazardous waste suitable for disposal in a non-hazardous landfill, in accordance with Section 2.3.3 of the Annex to the Council Decision 2003/33/EC

Reason for Insertion:

To update the "Interpretation" section of the waste licence to include a suitable definition of the asbestos waste proposed for disposal as detailed in the section above.

Licence Condition 1.5

Existing Wording:

"No hazardous wastes or liquid wastes or sludges shall be disposed of at the facility."

Proposed Wording:

"No hazardous wastes (with the exception of hazardous waste suitable for disposal in non-hazardous landfills in accordance with Article 6(c)(iii) of Council Directive 1999/33/EC), or liquid wastes shall be disposed of at the facility."

Reason for Change:

To facilitate the acceptance and disposal of asbestos containing wastes at the facility

Conditions Relating to Reporting

Licence Condition 11.7.1

Existing Wording:

"The licensee shall submit to the Agency for its agreement, within thirteen months from the date of grant of this licence, and within one month of the end of each year thereafter, an Annual Environmental Report (AER)"

Proposed Wording:

"The licensee shall submit to the Agency for its agreement by the 31st March each year an Annual Environmental Report (AER) covering the previous calendar year. This report, which will be to the satisfaction of the Agency, shall include, as a minimum the information specified in Schedule F of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency"

Reason for Change:

The proposed change brings the Knockharley licence in line with other recently issued licences, such as W0201-02 (Drehid) and W0081-03 (KTK) and will allow adequate time for the large quantities of data required for such a detailed report to be collected and appropriately analysed prior to submission to the Agency for approval.

Contact Details

If you have any queries in relation to the above please contact Margaret Heavey, Head of Landfill Operations, Greenstar, Fassaroe, Bray, Co. Wicklow. Alternatively please email your request to margaret.heavey@greenstar.ie.

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