

Obj 1

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3 JAN 2006

Office of Licensing and Guidance
The Environmental Protection Agency
Headquarters
PO Box 3000
Johnstown Castle Estate
County Wexford

ENVIRONMENTAL PROTECTION
AGENCY WASTE LICENSING
RECEIVED
18 OCT 2005
INITIALS...NK.

KTK Ref: WL81-3 2005-1 (13-10-05)
EPA Ref: 81-3

Tuesday, 18 October 2005

Dear Sir/Madam,

RE: KTK Landfill Ltd Objection to Conditions of Proposed Decision for KTK Landfill, Brownstown and Carnalway, Kilcullen, Co. Kildare (Waste Licence Register No. 81-3) Licence Review Application

In reference to Environmental Protection Agency notification of a proposed decision on an application for a review of a waste licence, in respect of KTK Landfill Ltd owned and operated facility at KTK Landfill, Brownstown and Carnalway, Kilcullen, Co. Kildare, KTK Landfill Ltd hereby submits attached document as an objection to conditions of said proposed decision.

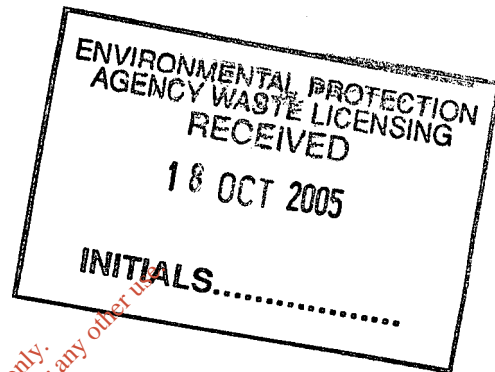
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In accordance with section 42(4)(e) of the Waste Management Act, 1996, the appropriate fee of €500 for the submission of an objection to a proposed decision by the licensee is attached.

Yours sincerely

Michael Beggan

**OBJECTIONS TO CONDITIONS OF PROPOSED
DECISION TO GRANT A WASTE LICENCE
KTK LANDFILL SITE
WL81-3**



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Presented By

KTK Landfill Ltd
Brownstown and Carnalway
Kilcullen
County Kildare

18th October 2005

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1. Introduction

KTK Landfill Ltd having its principal offices at Brownstown and Carnalway, Kilcullen, County Kildare, object to the proposed decision (PD) to grant a waste licence (**WL81-3**) for **KTK** Landfill site, Brownstown and Carnalway, Kilcullen, County Kildare. **KTK** Landfill Ltd objects to sections of Conditions **3,5, 6, 8,12** and Schedule C of the Proposed Decision.

Grounds for the objection and the **reasons**, considerations and arguments on which they are based are provided in section 2 of this document.

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2. Review of Conditions

3.7.1 (iv)

Landfill Base Lining System

Condition 3.7.1 (iv) specifies the base slope of the lining system to be 1:50.

KTK Landfill Ltd objects to this specification on the basis that precedent has been set for shallower slopes than this on all previous development phases to date at the site. KTK Landfill Ltd proposes base slopes not shallower than 1:100 on the floor of the landfill. KTK's consultants Golder Associates Ireland (ERML) have indicated that this slope will allow adequate drainage of leachate on the proposed relatively narrow base of the new cell. KTK objects to this condition and requests that it be amended to state a minimum slope of 1:100.

5.5.2

Leachate Disposal

This condition stipulates that the quantity of leachate disposed at the Athy WWTP shall be restricted to 55 m³ per day.

KTK Landfill Ltd objects to this specific wording and requests that it be amended to say that "The quantity disposed of shall be restricted to on average 55 m³ per day annually with a maximum of 70 m³ per day".

The grounds for this objection and basis for its rewording are that there will naturally be fluctuations in the amount of leachate generated and requiring removal on a day to day basis and as such these natural fluctuations should be allowed for in the operation of the facility and reflected in the licence conditions.

6.19.2

Working Face

KTK Landfill Ltd objects to the requirement to restrict working face to no more than 2.5 metres high after compaction and no more than 25 metres wide. Reasons for this objection are as follows.

Condition 5.5.1(b) of waste licence 81-2 stipulates that working face shall be no more than 3.5 metres high after compaction and no more than 35 metres wide. KTK Landfill Ltd requests retention of these dimensions for safety reasons, i.e. at 275,000 tonnes per annum or approximately 1,000 tonnes per day requires, for the initial operational hours of the day, two vehicles tipping simultaneously. This, in addition with two landfill compactors operating in parallel, requires a working face minimum 35 metres wide and 3.5 metres high to ensure the safety of operating personnel, particularly waste inspection personnel.

8.5.6

Asbestos Acceptance

KTK Landfill Ltd objects to the asbestos containing waste limit of 1% of the total annual waste intake for the landfill. Reasons for this objection are as follows.

The acceptance of construction materials containing asbestos at KTK Landfill is in full compliance with the requirements of the landfill directive and associated Council Decision 2003/33/EC. The acceptance and placement of asbestos at KTK Landfill is carried out as per the direction in UK EA Landfill Directive Regulatory Guidance Note 11. There is no basis in either the Landfill Directive (1999/31/EC) or the Council Decision (2003/33/EEC) for restricting the amount of asbestos that can be accepted in a landfill to a percentage of the overall tonnage accepted.

The UK Environment Agency, with which the Agency is **currently** involved in an EU funded programme on hazardous waste prevention (HAZRED), does not link the volumes of asbestos waste deposited at non-hazardous waste landfills to the overall volume accepted. Similarly, SEPA which **has** issued guidance on the procedures for the management of asbestos waste at non-hazardous landfills does not limit the volumes based on the total amount accepted.

The National Hazardous Waste Management Plan (2001) sets out national policy on the management of hazardous waste and identifies priority objectives that must be achieved. It is a long term priority to achieve self sufficiency in hazardous waste management. (Ref Section 9.8). A detailed review of progress in achieving the objectives of the Plan, completed by the National Hazardous Waste Implementation Committee in 2004 and described in its 2004 Annual Report, reconfirmed the priority of achieving self-sufficiency in the management of hazardous waste. Section 2.4 of the Annual Report states that 'Infrastructure needs to be put in place to achieve self-sufficiency in the management of hazardous waste'

The report also recommends against an almost complete dependency on the use of overseas facilities for the disposal of hazardous waste. In relation to asbestos wastes Appendix E of the report, which deals with Hazardous Waste Categories and their Management, states that 'the continued provision of landfill capacity of asbestos is required in order to avoid the often unnecessary expense of export.'

KTK Landfill wrote to the Agency on the 15* August 2005 (Ref 81-2 EPA (03-08-2005)) requesting agreement, in compliance with condition 1.4 of waste licence 81-2, for a re-distribution of tonnages as prescribed in Schedule A: Waste Acceptance Categories and Quantities of waste licence 81-2. The requested re-distribution is a transfer of 3,000 tonnes from Construction and Demolition waste category to Construction Materials containing Asbestos category. This re-distribution of waste tonnages would therefore be 7,750 tonnes for Construction and Demolition waste and 6,000 tonnes for Construction Materials containing Asbestos.

The reason for this requested re-distribution is that KTK Landfill has seen a significant increase above 2004 level in the quantity of construction material containing asbestos presented for disposal in the first half of 2005. KTK Landfill Ltd attributes this increase to the recent implementation date of 16* July 2005 of Section 2 of Council Decision 2003/33/EC on establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 11 and Annex II of Council Directive 1999/31/EC on the landfill of waste. KTK is one of a

few, if not the only, landfill site in the country with a dedicated cell for asbestos disposal. Restrictions on the use of other landfills since the 16th July deadline are most likely to be the reason for the 2005 increase. The Agency has not as yet responded to this request.

KTK Landfill Ltd has employed consultants, Golders Associates, to carry out a risk assessment into the acceptance of 6,000 tonnes per annum of construction materials containing asbestos. This report, attached as Appendix I, demonstrates that there is no increased risk of the acceptance of 6,000 tonnes per annum asbestos over 3,000 tonnes per annum.

The restriction on the amount of asbestos waste that can be accepted at the facility to 1% of the total annual waste intake is purely arbitrary and is not based on any scientific or engineering principles. It is not consistent with EU regulations, nor is it in line with practice applied in the UK. The restriction is also contrary to national policy objectives in relation to the management of hazardous waste and asbestos waste in particular. KTK Landfill Ltd objects to condition 8.5.6 on the grounds that there is no basis for this limit and therefore this condition should be removed from the licence. The overall site limit of 275,000 tonnes per annum will not be affected.

12.2

Leachate

KTK Landfill Ltd objects to the requirement to pay the sanitary authority €1.27 per cubic metre of leachate at 500 ppm COD discharged to the foul sewer. Reasons for this objection are as follows.

KTK Landfill is currently in discussions with a Senior Engineer in Kildare County Council's Environment Section regarding a joint installation of a sewer connection from both KTK Landfill and the Silliot Hill Integrated Waste Management Facility to the mains sewer near the Link Business Park in Kilcullen, Co Kildare. As part of these discussions, Kildare County Council Environment Section have indicated to our consultant Mr. Geoff Parker of ERML (now trading as Golder Associates Ireland) that leachate discharge costs to the foul sewer will be based on the Mogden Formula which calculates the cost of discharging commercial and industrial effluents to foul sewer. The Mogden Formula is as follows.

$$C = \frac{R + V + Ot/Os \times B + St/Ss \times S + Pt/Ps \times P}{100}$$

Where

- C = Cost of Discharge per cubic metre (€/m³)
- R = Reception and Conveyance cost = €4.36/m³
- V = Volumetric and Treatment cost = €4.13/m³
- S = Sludge Treatment and Disposal cost = €12.14/m³
- P = Phosphate removal cost = €2.61/m³
- B = Biological Oxidation cost = €13.45/m³
- Ot = Biological Oxygen Demand (x mg/l)
- St = Suspended Solids (x mg/l)
- Pt = Orthophosphate (x mg/l)

Os = BOD (mg/l of crude sewage) = **300 mg/l**

Ss = Suspended Solids (mg/l of crude sewage) = 200 mg/l

Ps = Orthophosphate (mg/l of crude sewage) = **10 mg/l**

International research has been carried out questioning if COD is a relevant parameter for leachate treatment **as** the COD in landfill leachate consists mainly of harmless non-biodegradable humic and sulvic acids (Maehlum T, Haarstad K, 1997, CISA, Proceedings of 6th International Landfill Symposium, Sardinia, Italy). Furthermore, no COD emission limit was set by the Agency for the discharge of treated leachate from Kyletalesha landfill (WL 26-2) leachate treatment plant because the harmless humic and sulvic acid nature of landfill leachate COD was recognised by the Agency.

A discharge rate based on COD therefore has no basis and **as** such the normal method for calculating discharge rates for commercial and industrial effluents, i.e. the Mogden Formula, employed by the Council should be used.

Schedule C3

Air Monitoring

The frequency of dust monitoring **has** been amended from quarterly in WL 81-2 to monthly in PD **81-3**.

KTK Landfill Ltd objects **to** this requirement on the grounds that there is no environmental basis for this increase given the results of 6 years of previous dust monitoring at the facility. Dust emissions are not likely to increase with the proposed ongoing closure plans for the facility. Quarterly monitoring will adequately reflect the status of dust emissions from the facility.

Schedule C3

Storm Water/Surface Water Monitoring

This Schedule requires weekly monitoring of all surface water points (Ref Drawing KTK/2002) for COD and Dissolved Oxygen.

KTK Landfill objects to this requirement on the grounds that this monitoring **has** never been carried out in the past and there is no previous monitoring results or proposals in the design, construction, operation and closure of the facility that would warrant such a monitoring plan. KTK Landfill Ltd proposes to monitor these parameters on a quarterly basis with all of the other parameters listed in this Schedule and requests that this Schedule to be amended to reflect this more rationale monitoring plan.

Appendix I
Asbestos Acceptance Risk Assessment

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TECHNICAL MEMORANDUM



Golder Associates (UK) Limited.

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TO: Geoff Parker (Golder Associate Ireland) **DATE:** 18110/05
CC: **JOB NO:**
FROM: STEPHEN BARNES (GAUK)
EMAIL: sbarnes@golder.co.uk
RE: ASBESTOS TONNAGE REVIEW TO KTK LANDFILL

1.0 INTRODUCTION

1.1 Background

The operator of KTK Landfill Site, (herein referred to as 'the Site') is Greenstar, who currently manage the operation under Licence No. 81-2. KTK Waste Licence review 81-3 PD (dated 08/09/05) is a proposed decision or licence for the site which will supersede 81-2, but is not yet in force. During review of 81-3, Greenstar have identified Condition 8.5.6, which limits the amount of asbestos containing wastes accepted to 1% of the total annual waste intake, i.e. 2,750 tonnes. Greenstar has sought to increase the acceptance of asbestos at the site to 6,000 tpa. Assuming a total post settlement site capacity of approximately 2.6 million cubic metres (or circa 2.1 million tonnes) and an increase of asbestos waste input to slightly more than 2% for the last three years of a 9 year active operation, such a variation is likely to allow the total asbestos wastes contribution at KTK to rise from approximately 1.1% to approximately 1.3%.

It suggested that this proposed change will be undertaken in a manner consistent with current practices on the site and does not present any additional environmental or safety risks. This memo comprises a review risk assessment to allow for the increased disposal of asbestos wastes at the site within the dedicated asbestos waste disposal bays. This facility is currently located between the existing Phases 1 and 3 at the site.

Given the above understanding, Greenstar have accordingly requested that Golder Associates Ireland (Golder) to prepare supporting documentation to vary the waste licence review (81-3) application to allow for the increased disposal rate of asbestos.

1.2 Memo structure

This memo comprises a summary of the Site description, details of the current engineering arrangements for asbestos waste disposal, a review of the implications to any environmental or health risks posed by the operational variation at the site, and the implications for any relevant management plans for the site.

1.3 Site Description

The Site is located in a rural setting approximately 2.5 km northeast of Kilcullen at Brownstown and Carnalway, County Kildare. The facility covers approximately 25Ha and comprises progressive restoration of an exhausted sand and gravel quarry. The site currently consists of 5 phases, together with an active asbestos bay and gypsum bay.

Infrastructure at the site includes access roads, site offices, two weighbridges, a leachate collection and management system including leachate storage and monitoring infrastructure. Development of the facility commenced in 1999 and is ongoing. The estimated volume of the landfill, post settlement of the wastes is 2.6 million cubic metres.

2.0 ENGINEERING

2.1 Asbestos waste disposal bay Preparation

The asbestos can only be disposed into specially constructed asbestos disposal bays. Currently an active bay is located between Phases 1 and 3. The bay is constructed of a low permeability soil basal layer (>1m in thickness), and surrounded by low permeability soil embankments (>1m in thickness) separating the asbestos containing materials from the surrounding wastes. These embankments are envisaged to extend up to the site cap separating the asbestos wastes from the surrounding materials. The final elevation of the known asbestos cell will be >2.5m below the final surface or restoration levels of the site.

2.2 Leachate Management

The asbestos bays share the leachate drainage system of the surrounding landfill and leachate deriving from these areas is therefore in full continuity with the drainage system of the surrounding site. Essentially drainage has been (and will continue to occur) down through the asbestos wastes, underlying soil layer, and into the site leachate collection system. No special arrangements are in place for the purposes of monitoring leachate level and quality in the asbestos bay areas as a discrete entity.

2.3 Landfill Gas Management

The asbestos waste is not anticipated to generate significant volumes of landfill gases. Landfill gas wells will not be installed into the asbestos waste areas. Any wells within the non-hazardous waste mass will not extend to within 2 m of the separation liner. All locations of asbestos disposal in KTK have been surveyed and recorded.

3.0 ASBESTOS BAY OPERATION AND MONITORING

3.1 Operations

Operational procedures for the asbestos bay are already in place at the site and outlined in Licence Reg. No. 81-3 and in Work Instructions 1.14 and 2.11 (see Enclosures 1 and 2 respectively). The collective site management plan covers the following relevant issues:

- Permitted wastes (i.e. no fibrous asbestos);
- Waste acceptance procedures (outlined in and taken directly from the Institute of Wastes Management Code of Practice for the Disposal of Asbestos Waste 1981);
- Reception of wastes (inc. supporting documentation, C1 form and waste EWC code);
- **Hours** of operation;
- Procedures for packaging and transport (all asbestos wastes arriving at the waste disposal face need to be double plastic wrapped);
- Emergency action if a spillage should occur (inc. sprinklers);
- Waste deposit into bays or trenches of at least 2m in depth and including a record of disposal as per Work Instruction 2.11;
- Verification at disposal (inc. waste type/classification, source, physical form of waste and EWC code); and
- Intermediate and daily cover incorporating 250mm and 500mm of suitable material respectively (inc. on site inspection of process).

Unacceptable wastes are directed to a quarantine area for further investigation and waste rejection procedures.

3.2 Monitoring

Asbestos fibre monitoring is carried out at KTK 3 times per annum at the point of tipping and at 10m downwind of tipping in a manner outlined in Schedule C of the Licence No. 81-3. This is part of the overall nuisance and health plan for the site. The particulate monitoring procedures have already been identified in the licence and are recommended to continue as normal.

Leachate and gas monitoring will be undertaken in accordance with the existing regime at the site as a whole. No specific gas or leachate monitoring is undertaken of the asbestos wastes in isolation.

4.0 RISK ASSESSMENT

4.1 Hydrogeological Risk Assessment

In terms of potential groundwater impacts from the site, it is considered that there will be no material impact due to the proposed increase in asbestos disposal rates for the following reasons:

- The area of the landfill and phasing of the leachate containment areas is unchanged;
- The leachate within the asbestos bays will be in continuity with surrounding phases; and
- Asbestos is not a leachate generating material in isolation, and leachate generated from asbestos bearing wastes as a whole is likely to be of equal or lesser strength to that in the non hazardous cells, and the area of the disposal bays is very small relative to the overall site.

The cap above the asbestos waste at final levels will be to the same specification as above other parts of the Site. It would be anticipated that infiltration through various areas of cap would be at a similar rate. Any leachate infiltrating through the asbestos waste would be collected by the leachate drainage system which underlies the waste and transferred to the sumps for removal.

Accordingly the proposed arrangements will minimise leachate infiltration within the asbestos bearing wastes and will allow effective control of leachate generated. This control will not be dependant upon additional wells being installed into the asbestos waste.

4.2 Stability Risk Assessment

The risk associated by the additional asbestos inputs rates is not impacted due to the following reasons:

- The side wall embankments for the asbestos bay will be unchanged;
- The design of the base is unchanged;
- The waste is anticipated to continue to comprise largely of bonded asbestos, asbestos contaminated soils and inert cover. The shear strength of these materials is anticipated to be at least as high as the surrounding nonhazardous waste; and
- The leachate drainage system in the asbestos cell will be in continuity with surrounding phases and therefore significant leachate heads will not develop prior to filling of surrounding areas.

The filling of both asbestos and non-hazardous waste in tandem either side of the sidewall embankments, will help ensure the stability of the waste mass. The separation medium, a thick layer of soil, will also ensure the stability of the structure.

4.3 Landfill Gas Risk Assessment

It is not anticipated that the landfill gas generation potential of the site will vary significantly by an additional input rate for asbestos due to the following reasons:

- The corresponding reduction of non hazardous waste disposal at the site will be minimal and therefore the rate of gas production prior to site closure will not be significantly impacted;

- The volume of waste in the asbestos bays is a very small proportion of the total waste volume at the site, such ~~that~~ the volume of landfill gas produced will not be significantly impacted;
- The position of the site gas engines and flare and the associated emissions will not be significantly impacted;
- Landfill gas monitoring requirements and practice will not be changed; and
- Asbestos itself is effectively a calcium aluminium silicate, does not contain carbon, and is therefore not gas producing.

4.4 Nuisance and Health Risk Assessment

Operational procedures are already in place to deal with asbestos ~~at~~ the KTK site. It is envisaged that these should continue at an appropriate rate to allow for effective monitoring of the proposed increase in asbestos input rates.

5.0 SUMMARY

Based on the proposed increase in asbestos waste disposal rate to KTK Landfill Site, a review risk assessment ~~has~~ been undertaken. Upon completion/closure, the total increase in asbestos bearing wastes to the total capacity of the site is judged to be insignificant and certainly <0.5% of the total void potential of the landfill.

In terms of any variation in risks posed by the site to groundwater and ~~from~~ gas migration, asbestos is not a leachate or ~~gas~~ producing ~~substance~~ and therefore no additional ~~source~~ is envisaged. In addition, no new pathways, ~~or~~ receptors have been identified as a result of the proposed modification. ~~Any~~ asbestos bay design arrangements will remain unchanged and no new site stability issues have been identified.

Asbestos at the site is a potential risk to human health. However, the current procedures and operational practices at the site (which has dealt historically with asbestos disposal) have been successful in the past. It is not envisaged that the increase in asbestos disposal rates proposed are likely to require additional measures. Current air borne monitoring of asbestos should highlight any adverse trend in data ~~through~~ time ~~as~~ inputs rates are increased and ~~therefore~~ allow for an ongoing review in terms of operational performance.

ENCLOSURE 1:WORK INSTRUCTION1:14

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WI KTK 1.14

DISPOSAL OF BONDED ASBESTOS WASTE ON KTK LANDFILL

1.14.1 Introduction

Under the EC Directive on Hazardous Wastes, asbestos can be divided into two types:

1. Fibrous – Hazardous
2. Bonded – Non Hazardous (at present)

The EPA confirms that asbestos is not a scheduled hazardous waste and as such it is permissible for KTK Landfill to receive and dispose of this material.

FIBROUS ASBESTOS WILL NOT BE ACCEPTED AT KTK UNDER ANY CIRCUMSTANCES

Examples of fibrous asbestos include pipe lagging, dust or any type in which the material is in poor or flaking condition. Examples of bonded asbestos include sheets, tiles, guttering, brake linings, etc. It must be remembered that asbestos can be found in objects such as storage heaters, old gas and electric fires, ironing boards, fire doors and blankets. If in doubt, seek advice.

1.14.2 Asbestos Handling Instructions

Follow instructions as laid out in the Institute of Wastes Management Code of Practice for the Disposal of Asbestos Waste 1981. A copy of the COP follows this work instruction and the relevant sections are reproduced below.

EXTRACTS FROM IWM COP FOR ASBESTOS

TO BE ADDED SHORTLY

1.14.3 Emergency Action if a Spillage should Occur

The staff member in charge must isolate the area immediately. The Line Manager must be informed. Wear all the following PPE: protective suit, protective gloves, and facemask. If asbestos sheets have been broken and fibres are exposed damp down the spillage and the area around using water.

Pick up pieces of asbestos and place them in a plastic bag or visqueen. Place the bagged or wrapped asbestos into the bucket of machine and take to asbestos disposal point where it can be disposed of in accordance with the site licence.

After ensuring that everything is cleaned up, remove PPE carefully, turning it inside out, place it in an asbestos bag and dispose of in asbestos area.

Record the incident in the site daily condition report form and in the non-conformance register, noting action taken. Ensure that the Site Manager is made aware of the incident as soon as possible.

1.14.4 Record of Disposal

A record of the disposal locations of all difficult waste including asbestos is to be made at the time of disposal. Each load is to be marked on the Difficult Waste Disposal Plan as accurately as possible along with the date of its disposal and **the weighbridge ticket number so that the load may be traced at a later date if required.** See work instruction WI KTK 2.11 – Record of Disposal Locations.

Documentation

OP001	Site Daily Condition Report
OP002	Non Conformance Register
OP003	Non Conformance Report
OP007	Difficult Waste Disposal Plan
OP008	Difficult Waste Disposal Record

Supporting/Complimentary Work Instructions

None

Reference and Guidance

Institute of Wastes Management Code of Practice on the Disposal of Asbestos Wastes

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ENCLOSURE 2: WORK INSTRUCTION 2.1.1

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WI KTK 2.11

RECORD OF DISPOSAL LOCATIONS

2.11.1 Introduction

Procedures for the acceptance of wastes are detailed under work instruction WI KTK 2.01. Once waste has been accepted it is important that accurate and comprehensive records are maintained as to the locations of the deposited waste. These records are maintained for the following reasons:

- e To aid later settlement calculations
- e To assist in the calculation of landfill gas production (as the age and type of waste in each location is known)
- e To prevent accidental disturbance of difficult wastes (when drilling future boreholes etc.)
- To assist in the event of any environmental pollution incidents

The locations of all deposited waste will be recorded on one of the following two plans:

- e Routine Waste Disposal Plan
- e Difficult Waste Disposal Plan and Record

Each of the four operational phases of the site will be divided into a grid system; each grid square of which will be uniquely identified using the system shown below:

Example: 1A2 1 = Phase number of the cell.
 A2 = Cell grid number.

A copy of the grid locations for phase 1 follows this work instruction. Similar grid systems will be developed for each of the operational phases of the site.

All waste disposal location records are to be kept for the life of the site.

2.11.2 Routine Waste

Each days tipping will be identified upon the routine waste disposal plan. The area of waste deposited that day is identified on the plan along with the date of its deposition. At

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the start of each day, the operating area will be decided between the Site Manager and Site Supervisor. The Site Supervisor will inform the weighbridge operator in which grid location, tipping will be carried out that day. The weighbridge operator will identify that area on the plan and mark it up accordingly.

All loads received that day will have entered in the destination space on the weighbridge ticket the appropriate grid reference for that days tipping. This will allow future identification of the location of specific loads to be quickly and easily made.

2.1 1.3 Difficult Waste

Difficult loads are loads, which may create future management problems within the landfill site. Typical difficult loads may include the following:

- Bonded asbestos
- Large quantities of dust/ash
- Fibrous materials
- Sludge's (with greater than 25% solids as allowed under the site license)

These materials may present certain hazards if disturbed after deposition, such as the release of fibres or dusts during borehole drilling.

For these reasons, such wastes will be identified by the Site Manager or Site Supervisor and will be recorded using the following system.

All such loads will be recorded using the difficult waste location plan and each load will be accurately located on the plan and identified with its weighbridge ticket number and date of deposition. A difficult waste disposal register will be maintained and all difficult wastes recorded on this register along with the date of deposition, weighbridge ticket number, location within the site and waste type and producer/carrier details.

These details will assist in tracing such loads should the need arise.

Documentation

WA006 Routine Waste Disposal Plan
WA007 Difficult Waste Disposal Plan
WA008 Difficult Waste Disposal Register

Supporting/ Complimentary Work Instructions

WI KTK 2.01 Waste Acceptance Procedures

Reference and Guidance

None

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