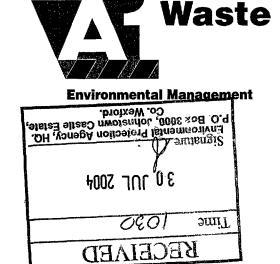
Waste Licensing Administration, EPA, P.O. Box, 3000 Johnstown Castle Estate, Co. Wexford.

28 July 2004



RE: REVIEW OF WASTE LICENCE 47-1

Dear Sir/Madam,

Please find attached an application for a waste licence review prepared on our behalf by ERML. I also enclose a cheque for €31,000, this being the application fee for the review application.

Thank you for your assistance in this matter in the Yours sincerely,

Mr Tony Dean, Managing Director

Service/Skip Hire: 01 466 4444 Head Office: 01 466 4400 Accounts: **Customer Care:** 01 466 4424 Fax: E-Mail: 01 466 4411 info@a1waste.ie Website: www.a1waste.ie

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NTL/1002	Site Plan Showing Provisional Extent of Landfill Phases.	Α
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### NEIPHIN TRADING LTD. KERDIFFSTOWN, NAAS, CO. KILDARE.

# INTEGRATED WASTE MANAGEMENT FACILITY INCLUDING A LANDFILL FOR NON-HAZARDOUS WASTE

**Waste Licence Register 47-1** 

APPLICATION FOR A WASTE LICENCE REVIEW

Prepared By: Environment & Resource Management Ltd. No. 3 Tara Court, Naas, Co. Kildare.

**JULY 2004** 

### **Neiphin Trading Ltd.**

### Integrated Waste Management Facility Including a Landfill for Non-Hazardous Waste

Kerdiffstown, Naas, Co. Kildare

Application for a Review of Waste Licence No. 47-1

#### **PREAMBLE**

Environment & Resource Management Ltd. (ERML), acting on behalf of its client Neiphin Trading Ltd. issued a letter to the Environmental Protection Agency ('the Agency') on 25 February 2004. The letter followed a meeting held between Dr. Derham of the Agency and Dr. Ted Nealon, Neiphin Trading Ltd. on 13 February 2004.

The letter requested receipt of advice from the Agency in relation to a review of the above-referenced Waste Licence, and the information required by the Agency for such a review.

The three-fold objectives of the review were articulated in the enclosed letter of the 25<sup>th</sup> of February 2004.

The Agency responded to the above letter on 19 April 2004. The letter firstly acknowledged the three objectives of the proposed review. It then states, "....a full review application is not required in this instance. An application may be made under the revised review procedure (as allowed for under Article 6(e) of the Waste Management (Licensing) (Amendment) Regulations, 2002)". The letter then goes on to list the information required in order that the review may be processed by the Agency.

The information and particulars specified by the Agency in its letter of 19 April 2004 for inclusion in this Application for the review of Waste Licence 47-1 is contained in the text, Appendices and accompanying drawings that follow.

It is noted that in the period since the Agency letter was issued, new legislation was enacted. The Waste Management (Licensing) Regulations 2004 revokes all previous Waste Management (Licensing) Regulations. Therefore, the present Waste Licence Review Application is being made under this new legislation.

### 1. GROUNDS FOR THE APPLICATION FOR THE REVIEW OF WASTE LICENCE REGISTER NUMBER 47-1

Article 12(3)(a) of the Waste Management (Licensing) Regulations 2004, requires the Application for review of a waste licence to (i) state the grounds on which it is made and (ii) and reference number given to the licence in the register.

The reference number in the register is as stated above, No. 47-1.

The grounds on which this Application for review is being made were outlined in the letter of 25 February 2004 and are further described as follows.

### 1.1 Grounds No. 1 - A Proposed Extension to the Facility Boundary and Lined Landfill

The licensee wishes to extend the facility boundary to allow recovery of previously deposited wastes that are outside the current limits of the licensed activities. The licensee further wishes to extend the lined landfill into that area and outside the current boundary of the facility. A planning application was made and a decision to grant permission for the aforementioned development was made by kildare County Council on 9<sup>th</sup> March 2004. This decision has been appealed to An Bord Pleanala. According to the Board, the decision is the on 9<sup>th</sup> August 2004.

### 1.2 Grounds No. 2 - A Proposed Amendment of the Maximum Final Contour Level of the Restored Landform

The licensee wishes to make the planning permission and the Waste Licence consistent in regard to the final restoration levels at the site. The planning permission allows a maximum level of 108mOD whereas condition 4.2 of Waste Licence 47-1 allows a maximum level of 100 mOD. The higher level is required to ensure suitable gradients for surface water runoff from the capped landfill.

### 1.3 Grounds No. 3 - Proposals to include Further Waste Recovery and Disposal Activities

Condition 1.4 and Schedule A.1 of Waste Licence 47-1 allows acceptance of the following waste types and quantities:

Table 1.1: Waste Types & Quantities Acceptable at Neiphin Trading Ltd.

Waste Type	Maximum (tonnes per annum)		
Commercial & Industrial	100,000		
Imported Construction & Demolition Waste	200,000		
Waste Excavated on Site	330,000		
TOTAL	630,000		

The licensee wishes to treat and recover putrescible wastes that are included in the waste streams with other biodegradable wastes currently being recovered pursuant to Class 2 of the Fourth Schedule of the WMA, 1996 (See Waste License 47-1; Part I – Activities Licensed).

In-vessel composting technologies will be employed at the end of physical treatment processes with the aim to recover 100% of the biodegradable wastes including green waste, putrescible waste, paper, cardboard, wood and timber that have not been recovered by other means such as physical separation and sorting. The compost produced from these treatment processes will be used for restoration purposes on the site or sent off-site on a commercial basis for landscaping or gardening purposes.

Finally it is possible that some of the materials arsing from physical and biological treatment processes may not be suitable for recovery and thus must be disposed on site or off site. The licensee wishes to cater for this possibility.

On account of these positive proposed initiatives by the licensee in relation to expanding waste recovery infrastructure and increasing the rate of recovery in line with government policy and the EU Directive on the Landfill of Waste, some of the limitations attached to the licensed activities need to be amended. Furthermore, some new activities need to be added to cater for the proposals by the licensee.

### <u>Proposed Amendments to Limitations placed on Certain Licensed</u> <u>Activities:</u>

It is proposed that the limitations placed on the following activities be amended (Refer to Waste Licence Register 47-1, Part I):

### Fourth Schedule - Waste Recovery Activities:

Class 2. Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological transformation processes).

It is proposed that the current limitations placed on this activity be amended to include green wastes and putrescible wastes. Physical separation and sorting and composting technologies will be used to recover these materials.

### Class 11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.

It is proposed that the current limitations placed on this activity be amended. It is proposed to use some of the compost produced at the site for restoration purposes.

Class 13. Storage of waste intended for submission to any activity referred in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

This activity is currently limited in WL 47-1 to storage of waste on site in a building or on hardstanding prior to reuse. It is proposed that this limitation be amended to allow the storage of recovered waste such as soil and timber on the existing previously deposited wastes as such storage will not cause any significant impact on the environment.

### Third Schedule - Waste Disposal Activities:

Class 13. Storage prior to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

It is proposed that the current limitation placed on storage on a hardstanding surface be amended because from time to time some of the residues of processing/recovery activities, cannot be further recovered and may need to be stored on previously deposited wastes near the recovery area, prior to disposal on the site of off-site. Such temporary storage on previously deposited wastes will not cause any significant impact on the environment.

### **Waste Activities to be Added:**

It is further proposed that the following activities be added to the licensed activities at the facility:

### Third Schedule - Waste Disposal Activities:

Class 6. Biological treatment not referred to elsewhere in this Schedule, which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 of this Schedule or paragraphs 7 to 10 of this Schedule

It is proposed to include this activity to cater for in-vessel composting and subsequent disposal of off-spec compost in the lined landfill for non-hazardous waste.

Class 11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Blending or mixture of wastes prior to biological treatment of wastes that may ultimately be disposed will be carried out as a preparatory step to invessel composting. Class 12. Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

From time to time some of the residues of the processing/recovery activities cannot be further recovered and this may need to be repackaged to allow removal from the site and disposal at an off-site location. The repackaging would involve a baler or compacter in the waste recycling building.

Note: In regard to all other activities currently licensed, no changes are proposed.

Consent of copyright owner required for any other use.

### 2. ARTICLES 5, 6, & 7 COMPLIANCE REQUIREMENTS

### 2.1 Notice of Intention to Apply to the Agency for a Review of Waste Licence

### 2.1.1 Newspaper Notice

In accordance with Article 5, within the period of two weeks before the making of this Application for the review of the waste licence, a notice of the intention to make this Application was published in a newspaper circulating in the area in which the activities will be carried on.

The notice, which was prepared in accordance with Article 6, was published in the Leinster Leader on 29 July 2004. A copy of the notice is attached in Appendix 1.

#### 2.1.2 Site Notice

In accordance with Article 5, previous to the making of this Application for the review of the waste licence, a site notice of the intention to make this Application was erected at the facility.

The notice, which was prepared in accordance with Article 7, was erected on 29 July 2004, close to the site entrance. A copy of the text for this sign is attached in Appendix 2.

The location of the site notice is shown on Drawing No. NTL/1001 and NTL/1002.

### 3. ARTICLE 9 COMPLIANCE REQUIREMENTS

### 3.1 Notice to the Relevant Planning Authority

In accordance with Article 9, written notice of the application to review the Waste Licence was given to Kildare County Council. The notice took the form of a letter, which contained all information specified in Article 6 and was issued to the County Council on 27 July 2004. A copy of this letter is attached in Appendix 3.

and cooping owner required for any other use

### 4. ARTICLE 12 COMPLIANCE REQUIREMENTS

### 4.1 Information Specified in Article 12(1)(a)

### **Applicant's Name:**

Neiphin Trading Ltd.

### **Applicant's Address:**

3 Broomhill Business Complex, Broomhill Road, Tallaght, Dublin 24.

### **Applicant's Telephone Number:**

01 - 4664400

### **Applicant's Fax Number:**

01 - 4664499

### Address to which correspondence relating to the Application should be sent:

Environment & Resource Management Ltd., No. 3 Tara Court, Dublin Road, Naas, Co. Kildare.

### Address of Applicant's registered or principal office:

3 Broomhill Business Complex, Broomhill Roads Tallaght, Dublin 24.

### 4.2 Site Plan

A site plan (Drawing No. NTL/1002), which shows the extent of the entire facility, outlined in red is attached in Appendix 5. The proposed area of extension is also outlined on the drawing. The surface area of the extension is ca. 2.3 ha. The total area of the proposed revised facility boundary will be 30.6 ha.

### 4.3 Applicants' Interest in Land

The 'Applicant' - Neiphin Trading Ltd. has a long-term lease agreement with the owners of the lands subject to this Application.

Neiphin Trading Ltd. are the sole occupiers of the land subject to this Application.

The owner of the land comprising the extension to the facility is the parent company of Neiphin Trading Ltd.:

 Dean Waste Co. Ltd.
 No. 3 Broomhill Business Complex, Broomhill Road, Tallaght, Dublin 24.

See Drawing No. NTL/1003, Appendix 5.

Documents indicating the ownership of the land comprising the extension to the facility are attached in Appendix 4.

## 4.4 Classes of Activity Concerned, in Accordance with the Third and Fourth Schedule of the Waste Management Act 1996 / Protection of the Environment Act 2003

A summary table showing the activities concerned with this Waste Licence Review, as specified in the **THIRD SCHEDULE** and **FOURTH SCHEDULE** of the Waste Management Acts 1996 - 2001 and the Protection of the Environment Act 2003 is presented Table 4.1 below.

**Note:** Proposed amendments to the activities licensed under Part I of Waste Licence No. 47-1, which are the subject to this review, are highlighted in red.

Table 4.1: Activities concerned with this Waste Licence Review, as specified in the THIRD SCHEDULE of the Waste Management Acts 1996 – 2001 and the Protection of the Environment Act 2003, with described limitations by EPA in Waste Licence 47-1 and as amended by ourselves.

THIRD SCHEDULE Waste Disposal Activities	Description	
	Deposit on, in or under land (including landfill)	
Class 1	This activity is limited to the disposal of non-hazardous wastes specified in Condition 1.4 in lined cells that are on, in and under land.	
Class 4	Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.	
Class 4	This activity is limited to the storage of leachate in a lagoon/tank prior to disposal off-site at a suitable wastewater treatment plant.	
Class 5	Specifically engineered landfill, including placement into lined discrete cells, which are capped and isolated from one another and the environment.	
(Principal Activity)	This activity is limited to the disposal of non-hazardous waste into lined cell(s).	
Class 6	Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule.	
	This activity is limited to composting of biodegradable wastes including green and putrescible wastes and the disposal of off-specification compost in the lined landfill.	
	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.	
Class 11	This activity is limited to the blending or mixture of wastes prior to the biological treatment of these wastes that are ultimately disposed. This activity will be carried out as a preparatory step to in-vessel composting.	
Class 13	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.	
Class 12	This activity is limited to the baling and/or compacting of wastes onsite indoors and the disposal of these wastes onsite or offsite.	

	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.	
Class 13	The activity is limited to provision of a waste quarantine area and the temporary storage on-site of unacceptable waste prior to transport to another facility and the temporary storage of wastes on a hardstanding surface at the facility prior to landfilling at the facility.	
	This activity is also limited to allow storage of residual waste on the existing previously deposited wastes near the recovery area, prior to disposal on-site or off-site.	

Table 4.2: Activities concerned with this Waste Licence Review, as specified in the FOURTH SCHEDULE of the Waste Management Acts 1996 – 2001 and the Protection of the Environment Act 2003, with described limitations by EPA in Waste Licence 47-1 and as amended by ourselves.

FOURTH SCHEDULE Waste Recovery Activities	Description	
	Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological transformation processes).	
Class 2	This activity is limited to the recovery of paper, cardboard, wood, timber, plastics, green waste and putrescible wastes subject to the prior agreement of the Agency.	
	Amended to include putrescible wastes.	
Class 3	Recycling or reclamation of metals and metal compounds	
CIGSS 3	This activity is limited to recovery of metals.	
	Recycling of reclamation of other inorganic materials	
Class 4	This activity is limited to the recovery of construction and demolition waste such as concrete and soil and to the recovery of commercial and industrial waste.	
	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.	
Class 11	This activity is limited to the use of recycled construction and demolition waste such as clay and topsoil as cover and/or construction material at the site, and compost produced at the site to be used for restoration purposes.	
	Amended to include compost produced at site, for restoration purposes.	
Class 13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.	
	This activity is limited to storage of waste on site in a building or on hardstanding prior to reuse, and the storage of recovered waste such as soil and timber on the existing previously deposited wastes.	

### 4.5 Proposed Capacity of Facility and Revised Rates of Waste Acceptance, Waste Disposal and/or Waste Recovery

It is not intended to vary the quantity or types of waste accepted at the facility, from those agreed in the Waste Licence 47-1 Schedule A, Table A.1. As at present, the wastes will be processed and only the residues will

be landfilled in accordance with National and EU waste policies as well as reflecting the relevant aspects of the Waste Management Plan for County Kildare.

The ultimate capacity of the facility will depend on a number of factors including the extent of excavations, as built levels of the floor and side slopes of the lined area and final restoration levels. With all of these variables it is difficult to provide a precise estimate of capacity. On the basis of some preliminary computations the capacity is estimated to be in the order of 3.5 million m<sup>3</sup>.

### 4.6 Waste Types in Accordance with Articles 53 and 54

The waste types to be accepted at the facility for disposal at the landfill will not change from those agreed in Waste Licence 47-1 and are/will be in accordance with Articles 53 and 54 of the Waste Management (Licensing) (Amendment) Regulations 2002, as replaced by Sections 49 & 50 of Waste Management (Licensing) Regulations 2004.

### 4.7 Details of Proposed Extension

The review envisages the development of a ca. 2.3 ha site, consisting of an extension of the existing waste management acility. The development includes extension of the engineered lined landfill, ancillary drainage works, landscaping, deposition of wastes and restoration of the lands.

Drawing NTL/1002 outlines the proposed extension to the existing Integrated Waste Management Facility specified, and the extension of the lined landfill area into this area Further details on the proposed extension of the lined landfill are shown on Drawing NTL/1004 and NTL/1005 licence.

### 4.8 Design Considerations / Plans for the Proposed Composting Facility

The requested information is as follows:

**Proposed Location:** It is intended to locate the composting infrastructure in the Waste Recovery Area previously identified for the Agency in correspondence dated 23 July 2003 (See Drawing NTL/1002). The curing area will initially be on a concrete hardstand adjoining the Waste Recycling Building. In due course it is proposed to locate the curing area on the surface of the wastes deposited in Phase 1 of the lined landfill.

**Waste Types Proposed to be Accepted:** commercial and industrial wastes and C&D wastes including green waste, putrescible waste, wood, timber, paper and cardboard.

**Estimate of the Expected and Maximum Quantity of Waste Types to be Accepted:** It is intended to develop the composting facility on a phased basis to maximum capacity of 65,000 tonnes per annum.

Type of Process to be used: In-vessel aerobic composting is proposed.

**Indoor or Outdoor Process:** Preparation will be indoors followed by invessel composting and then outdoor curing.

**Odour/gas Abatement:** Biofilters located near the in-vessel composters will be used.

**Dust Abatement:** Wetting with outdoor sprinkler/misting systems will be used as required.

### 4.9 Proposed Changes to the Final Contour Levels of the Landfill

### 4.9.1 Description of the Existing Surrounding Landscape

In the EIS (September 2000), which accompanied the Waste Licence Application, the characteristics of the existing landscape were evaluated using the following sources of information:

- Kildare County Development Plan;
- Ordnance Survey Maps;
- Fieldwork (Site investigations were in 1997, 2000, 2001, 2002 and 2003.)

#### The results showed that:

- The site is located in a semi-rural area approximately 600 m from Johnstown village, which is located southeast of the site on the other side of the M7;
- Directly to the southeast of the site are a number of residences and as well as some commercial enterprises;
- To the south and southwest are predominantly rural lands, including a number of farms. To the northwest and abutting the site in the northwest corner is Naas Golf Course;
- Kerdiffstown House is to the north of the site;
- The drive into Kerdiffstown House as well as the Morell River run northeast to east of the site;
- The general topography of the area is characterised by rolling hills;
- The 1999 Kildare County Development Plan was consulted. The site is in the The Plainlands (Central and South) (Map No. 2 of the Development Plan). These Plainlands are characterised by "... well ordered rural landscape, with its wide roads, large farms and extensive regularly shaped fields enclosed by a combination of ditches and hedgerows...";
- The site owing to its proximity to the M7 and Naas can be considered to be on an urban fringe.

### 4.9.2 Description of Landfill Profile, as specified under Waste Licence 47-1

Drawing No. NTL/118, Rev. A, enclosed, shows the final restoration contours for the landfill as proposed to the Agency in November 2003 pursuant to Condition 4.1 of Waste Licence 47-1. An identical landfill profile was presented on Drawing NTL/113, Rev. A submitted to the Agency in October 2003 and again in November 2003 pursuant to Condition 4.2 of the current waste licence. Please note it is the current licence that limits the maximum level to 100 mOD.

### 4.9.3 Description of Proposed Amended Landfill Profile

The proposed amended landfill profile is as proposed to the Agency in an October 2001 response, by ERML on behalf of the licensee, to an Article 16 request for Further Information during the original waste licence Application process. The October 2001 landfill profile was presented on Drawing NTL/04.b, Rev B. This profile had a maximum height of 108 mOD Poolbeg datum. This level is lower by some 10 metres than the landfill profile assessed in the September 2000 EIS that accompanied an update to the original waste licence Application. Drawing NTL/04.b, Rev C showing the same landfill profile as presented on Rev. B of the same drawing was submitted to Kildare County Council in June 2002 in connection with a request for further information on planning application 01/2315. The planning authority granted permission for the development described by the plans and drawing submitted in relation to application 01/2315, in April 2003.

The licensee is proposing that a maximum level on the final restoration surface of 108 mOD, as already granted planning permission be allowed under the reviewed waste licence.

The schematic contour plan presented on Drawing NTL/04.b was reproduced and presented to the Agency in a 16 October 2003 submission required under Condition 4.2. A variation of the same schematic contour plan was submitted to the Kildare County Council on Drawing NTL/111 Rev. D in relation to the planning application for the extension to the facility planning reference 03/2355. The planning authority has decided to grant permission for the extension. This decision was appealed to An Bord Pleanala by third parties and a decision by the Board is expected in August 2004. The landfill profile most recently submitted to Kildare County Council incorporating the profile originally presented in October 2001 to the EPA and the area of extension which is the subject of this review of Waste Licence 47-1 is represented on the enclosed Drawing NTL/1007, Rev A. Cross-sections through the landform are shown on Drawing NTL/1009, Rev A.

The licensee is proposing the higher level so that the planning permission and the Waste Licence are consistent. The licensee also wishes to produce a landform that is consistent with the principals of BAT in regard to the promotion of surface water drainage from the surface of the restored landform and a landform that is consistent with the

recommendations and guidance provided in the Agency Manual on Landfill Restoration and Aftercare. In particular, in order to ensure the minimum gradients on the side slopes of completed landfills of 1:25 the maximum final height would need to be 108 mOD in some areas since the maximum height of the ground surrounding the facility is 102 mOD.

### 4.9.4 Proposed Impacts on the Environment

### 4.9.4.1 Potential Impacts

Because of the nature and the history of the site there are not likely to be any perceptible impacts. Hedges and berms already largely obscure the site. The raised elongated ridge will be a visible feature not uncommon in this area of Kildare.

### 4.9.4.2 Mitigation

Obscuring the view of the site is the best course of mitigation. This can be best accomplished by plantings. Hedges obscure the view into the site considerably. It is important to ensure that these hedges are maintained and thin areas re-planted. Similarly planting some low maintenance shrubs or trees along the northwest corner of the site can further obscure the view into the site from the Naas Golf Course.

In other areas of the site (i.e. northeastern boundary, southern boundary) berms obscure views into the site. These berms should be maintained and where possible planted with grasses.

As part of the final restoration plan there will be planting of trees on the elongated ridge to facilitate blending of the fully restored site with adjoining lands.

### 4.9.4.3 Likely Impacts

The site was formerly a number of worked gravel pits. The activities ongoing and proposed at the facility will restore the site. Over time this will improve the appearance of the site. Eventually the site will be restored to the extent that this land is similar to its surroundings albeit it with a raised ridge.

In general the development will have a positive impact on the landscape because the lands will be restored.

If mitigation measures are followed any possible impact from the elongated ridge on the surrounding landscape should be neutralized.

### 4.9.5 Additional Mitigation Measures

The proposed Landscaping Plan is to be undertaken in two phases:

Phase I Ongoing Landscaping Works

Phase II Final Site Restoration

The latest Landscaping Plan was prepared in connection with the planning application for the extension of the facility. Table 4.3 below includes a detailed description of both current and proposed landscaping plans for the entire Kerdiffstown Integrated Waste Management Facility.

Table 4.3: Description of Current and Proposed Landscaping around the Landholding

Zone #	Location	Current Landscaping	<b>Proposed Landscaping</b>	
А-В	North west boundary of property	High ridge/berm throughout     Trees, shrubs on the eastern portion     Grassed berm on western portion	Enhance grass cover of berm     Plant trees where possible	
в-с	North east boundary of property	High berm throughout     Grassed	<ul> <li>Enhance grass cover of berm</li> <li>Plant trees where possible along north base of berm</li> </ul>	
C-D·	North east corner to Southeast corner of site adjacent to pasture	<ul> <li>North strip has no landscaping</li> <li>Shrubs and some trees along Southern strip</li> </ul>	<ul><li>Establish hedge along northeast strip</li><li>Repair fencing</li></ul>	
D-E	Southeast corner of property along house and second unimproved driveway onto property to P.I. 175	Plantings along this entire section as well as behind house.	Maintain existing hedges     Fill in hedge as required	
E-F	P.I. 175A North to fence line	High hedges and some trees along this section.	Maintain hedges	
G1-G2- G3	Existing Berm	Ex. Berm between G1-G2 only	<ul> <li>Extend berm from G2 to G3</li> <li>Plant grass on berm</li> <li>Plant native species and trees along berm</li> </ul>	
G2-H	From G2 south to P.I. 175A	Currently there is a fence     along this boundary	Plant trees	
E-H	From Point E east to Point H along P.I. 175	High hedges and some trees     along this section	Enhance hedge with native species as required	
H-I	Along P.I. 175 to old site entrance	High hedges along this section	<ul> <li>To ensure safe exit of vehicles the hedge to the west of the exit has been trimmed back</li> </ul>	
I-J	North from P.I. 175A to southeastern tip corner of disused sand and gravel quarry	High hedges and some trees along this section of the old entranceway	Enhance hedges with native species	
J-K	West from Point J to P.I. 175A	No landscaping. Some scattered shrubs	Construct berm     Seed berm     Plant boundary	
K-L	Northwest along P.I. 175A	<ul> <li>High hedges along this section with an internal berm</li> </ul>	Shape and seed berm	
L-M	Northeast from P.I. 175A to Point M. Along old quarry entrance	High hedges and trees along this section	Entrance hedges close to M     Construct and seed a berm	
M-N	East from Point M to P.I. 175A	To the north of boundary there is a berm	Plant grass     Plant trees on the berm	
и-о	Northeast along P.I. 175A	High hedges along this section	Maintain hedges	
O-A	North cutting across boundary of disused quarry	Along the border of the property there are trees and hedges. The edge of the triangular portion of land to the west has high hedges along it.	Maintain trees and hedges     Construct and seed berm	

The Phase I planting plan is specified in more detail in Table 4.4 included below. The notations in Table 4.4 are the same as Table 4.3.

Table 4.4: Proposed Phase I Plantings

Zone#	Total Trees	Total Hedging	Number of Each Species	·
A – C	100		100 <i>Populus balsamifera</i> at 10 metre spacing at bottom	of slope
C - D		700	200 Crataegus monogyna 200 Prunus spinosa 200 Corylus avellana 100 Ilex aquifolium	Hawthorn Blackthorn Hazel Holly
G1 – G3		300	100 Crataegus monogyna 100 Prunus spinosa 100 Ilex aquifolium	Hawthorn Blackthorn Holly
G1 – G3	75		30 Fraxinus excelsior 30 Alnus glutinosa 15 Pinus sylvatica	Ash Alder Scots Pine
G2 - H	40		20 Pinus sylvatica 20 Sorbus aucuparia	Scots Pine Rowan at 4 metre centres
J – K	80		20 Quercus petrea 20 Fraxinus excelsior 20 Alnus glutinosa 20 Betula pendula	Oak Ash Alder Birch
L-M		170	100 Crataegus monogyna 50 Prunus spinosa 20 Ilex aquifolium	Hawthorn Blackthorn Holly
M - N	150		50 Quercus petrea 50 Fagus sylvatica 50 Anus glutinosa	Oak Beech Alder

### Phase I

### Plantings include hedges, trees and grass, with the following planting procedures:

- Hedgerow planting will use 600 mm tall transplants at 0.5 metre spacing.
- Tree planting will use 1000 mm tall whips at 1.5 metre spacing, unless specified otherwise, planted in blocks of five of the same species.
- All grass on berms will be sown as perennial rye grass at 30 gm/m<sup>2</sup> and white clover at 15 gm/m<sup>2</sup>.

All landscape operations, including ground preparation, seeding, topsoiling and planting are to be carried out according to the following British Standards:

B.S. 8000: Pt.1 Excavation and Fill

B.S. 4428: 1989 & AMD General landscape operations

B.S. 7370: Pt.4 1993 Maintenance of soft landscape

Maintenance of grassed areas will be carried out as required during the last half of the year. Hedge maintenance is programmed to be carried out annually.

The Phase I landscaping plan is depicted on Drawing No. NTL/1006.

#### Phase II

### **Final Site Restoration Plan and Planting:**

Final restoration layers across the site will comprise topsoil and subsoil to a depth of 1 metre. Grass seeding will be supported by this layer. Grasses will be sown as perennial rye grass at 30 gm/square metre and white clover at 15 gm/square metre. The final restoration contours on the Application site and adjoining landholding are depicted in Drawing No. NTL/1007. Additional plantings are envisaged on the landholding following completion of the restoration of the land surface.

### **4.10 Environmental Impacts of Proposed Amendments**

#### 4.10.1 General

All of the proposed amendments will provide a positive impact on the environment through enhanced and additional measures to manage wastes during the operating life of the facility and during the after care period. Some key points and positive impacts are as follows:

- The extension of the lined tandfill is not expected to have any negative impact on the environment. Indeed, as stated above, the extension would involve the removal of previously emplaced historical waste (which is a potential source of pollution to the surrounding environment) by a fully engineered lined landfill.
- As stated above, the raising of the final contours for the facility will simply bring the level to that agreed by the Planning Permission and to conform with good practice and the guidance of the Agency in regard to providing surface gradients for positive drainage of runoff from the restored surface of landfill sites.
- The addition of some specific waste activities under the Third and Fourth Schedules of the WMA 1996 and amendment of some of the limitations placed on some of the activities will facilitate development and use of important waste recovery infrastructure at this facility. Enhancement of waste recovery infrastrucre at Kerdiffstown will assist with management of wastes locally and on a broader regional scale. Thus, the proposed composting facility is a positive initiative.

### 4.10.2 Alternative Controls

The Agency, in its letter of 19 April 2004, has sought information on alternatives to odour control, landfill gas management, leachate

management and restoration and aftercare of the facility as a result of the proposed changes to the facility.

In regard to the environmental controls to address the proposed changes the licensee intends to provide the following:

#### **Odour Control:**

Biofilters comprising concrete bunkers or steel containers filled with perforated air distribution pipe, rounded stone and a filter medium that includes shredded bark and/or wood chips will be employed to control odours from the composting infrastructure. In-vessel composting will be employed rather than outdoor open windrows for primary biodegradation of the wastes. Compost curing areas will be kept below the general grade of the surrounding landscape on the surface of landfilled wastes in lined areas. Gas extraction wells will be installed in the lined landfill as it is filled. The extraction wells will cover the area on the landfill surface.

#### **Gas Control:**

Landfill gas will be controlled at the facility including the small 2.3 hectare extension by installation of gas extraction wells. The gas extracted from the wells will be directed to a fully enclosed flare or, in the event of sufficient quantities of gas, to a gas utilisation plant.

### Leachate Control and Management:

The extension of the lined landfill will involve an extension of the leachate management system. Drawings NTL/1004 and NTL/1005 show the intentions of the licensee in regard to containment, collection and management of leachate within the area of extension. All of the requirements of the existing licence and the Landfill Directive will be met in regard to leachate management in the lined landfill for non hazardous waste.

Runoff from areas where compost is curing will be treated as leachate and will be handled accordingly. The plan is to direct runoff from compost curing areas into the leachate collection system constructed at the base of Phase 1 of the lined landfill.

#### **Restoration and Aftercare at the Facility:**

The restoration of the facility will be as indicated above which does not vary significantly from what has been already proposed under earlier applications or in accordance with the existing licence. The aftercare of the facility is discussed in Section 4.9.3 above.

### 4.11 Matters Relating to Section 40(4) of the Waste Management Act 1996

### 4.11.1 Emissions from the Recovery & Disposal Activities

The licensee will ensure that emissions from existing licensed activities and the activities that are proposed in this review Application will be monitored as required by the conditions of the licence and will not result in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed in any other enactment.

### 4.11.2 Environmental Pollution

The activities will be carried out in accordance with the conditions attached to the Reviewed Waste Licence and will not cause any environmental pollution.

### 4.11.3 EU Landfill Directive on the Landfill of Waste (1999/31/EC)

The proposed composting infrastructure and other existing treatment and recovery infrastructure will ensure that the activities are carried on in accordance with this Directive. The landfill will be designed, constructed, operated, managed, maintained, monitored and closed in accordance with the requirements of the Directive. The licensee will take all steps necessary to ensure that the activities carried on at the facility will be in accordance with the Landfill Directive.

### 4.11.4 BAT and Prevention of Facility Emissions

Best Available Techniques (BAT) will be used to prevent or eliminate or, where that is not practicable, to limit, abate or reduce an emission from the Recovery and Disposal activities.

In the context of this facility and the proposed additional infrastructure, BAT will include design, construction, management, maintenance, operating and decommissioning of:

- The use of In-vessel composting technology to compost the putrescible wastes.
- Biofilters to treat emissions from the in vessel composters.
- A composite lining system and leachate collection systems in the landfill for non-hazardous waste in accordance with the EU Directive on the landfill of waste.
- An active gas management system.
- Restoration of the surface of the completed landfill with materials and to gradients that will promote run off and minimise leachate generation.

### 4.11.5 Consistency with the Objectives of the Waste Plan

Relevant objectives of the Kildare County Council Waste Management Plan (2000) are highlighted below.

### Specific Policy on Recovery/Recycling

Kildare County Council will support and encourage commerce and industry in the achievement of statutory targets for the recovery and recycling of packaging waste.

### **Specific Policy on Disposal**

In the short to medium term, Kildare County Council will consider alternative arrangements for the disposal of residual waste in co-operation with neighbouring Local Authorities.

The Council will encourage private sector collectors in the use of approved privately operated disposal facilities.

The Council will provide, or arrange for the provision of, a waste processing and biological treatment plant.

The County Council is developing measures designed to limit the quantity of construction and demolition (C&D) waste landfilled in the County. The measures under consideration include a ban on:

- The acceptance of such materials at public site(s) apart from material required for engineering purposes and;
- The granting of planning permissions for the landfilling of such material at private sites – except where such a development is a necessary and minimal adjunct to a C&D waste recycling undertaking.

This facility at Kerdiffstown is such a development for the recycling of C&D waste.

### **Targets for Waste Recovery**

Table 5.2 of the Kildare Waste Management Plan includes a summary of the recycling and recovery targets Kildare County Council must achieve to meet national targets, the Packaging Directive, the EU Landfill Directive and the objectives set out in the policy statement entitled "Waste Management – Changing Our Ways". This Table (Table 4.5) is included overleaf.

Table 4.5: Summary of the Targets to be met by County Kildare

Waste	2001	2005/6	2009	2013	2016
Municipal to be recycled	20%		•	35%	
Household to be diverted from landfill		:		50%	
Packaging waste to be recycled	25%	50%			
Biodegradable municipal waste to be diverted from landfill		25%	50%		75%
Biodegradable (Municipal and Industrial)				65%	

### Summary

On the basis of the foregoing it is apparent the waste management infrastructure and activities proposed in this Waste Licence Review Application will not be inconsistent with the Kildare County Council waste management plan and will not prejudice the implementation of the plan by Kildare County council. The licensee intends to ensure that this is the case.

### 4.11.6 Fit and Proper Person

The licensee is considered to be a fit and proper person for the following reasons:

- Neither that person nor any other relevant person has been convicted of an offence under the Waste Management Acts 1996 2001, the Environmental Protection Agency Act 1992, the Local Government (Water Pollution) Acts 1977 and 1990 or the Air Pollution Act 1987;
- The licensee and any person/persons employed by him/her to direct/control the carrying on of the activity to which the reviewed Waste Licence will relate, have the requisite technical knowledge or qualifications to carry on that activity in accordance with the Licence and the other requirements of the Waste Management Acts 1996 – 2001.
- The licensee is in a position to meet any financial commitments on liabilities that the Agency reasonably considers will be entered into or incurred by him/her in carrying on the activity to which the reviewed Waste Licence will relate in the accordance with the terms thereof or in consequence of ceasing to carry on that activity.

### 4.11.7 Requirements Under Section 53 of Waste Management Act, 1996 – Financial Provisions Regarding Waste Recovery and Disposal

The licensee will comply with any of the requirements of the Agency requested under Section 53 of the Waste Management Act 1996 and all of the requirements of Section 53A of the Waste Management Act 1996 (as inserted by Section 43 of the Protection of the Environment Act, 2003.

The licensee will ensure that charges are imposed in relation to the disposal of wastes at the facility that meet the cost of acquisition, development, operation, closure and all financial provisions during the operating period and the relevant after care period of not less than 30 years. Statements will be prepared annually and furnished as required by Section 53A subsections (5) and (6).

### 4.11.8 Energy Use

Energy will be used efficiently whilst carrying on the activities by ensuring measures, such as regular maintenance of plant and equipment are implemented by the licensee. Energy efficient plant and equipment will be sourced and used, as appropriate. Gravity drainage systems will be used wherever possible. Lighting systems will be placed on timers to conserve energy during non-operating hours.

#### 4.11.9 Noise

The activities will comply with and not result in the contravention of any regulations made under section 106 of the Environmental Protection Agency Act of 1992 by providing plant and equipment that has the appropriate noise silencing systems and by regular maintenance and repair (as required) of plant and equipment

#### 4.11.10 Accidents

The licensee has emergency procedures that have been developed to limit the consequences on the environment. These emergency procedures were submitted to the Agency in January 2004 (Register Reference No. 47-1)

The licensee has a Safety Statement and furnishes personal protective equipment to its employees for use. The licensee will require that construction on the site is carried out in accordance with the Safety, Health and Welfare (Construction) Regulations, 2001.

#### 4.11.11 Restoration and Aftercare

The licensee has developed a restoration and after care plan. It was submitted to the Agency in November 2003 (Register Reference 47-1). This plan will be expanded to include the area of extension to the existing facility and the higher levels of the landform. The plan will be kept under review and revised accordingly during the life and aftercare period of the facility. Financial provisions will be made as are presently required under Waste Licence 47-1 and a revised licence to ensure that risk of environmental pollution will be avoided and the site will be returned to a satisfactory state upon permanent cessation of the activities.

### 4.12 Environmental Monitoring

### 4.12.1 Proposed Changes to Monitoring and Sampling Points

Drawing No. NTL/1008 shows the proposed changes to the monitoring and sampling points at the facility.

These changes include:

- The relocation of Gas Monitoring Locations G23, G24, G25, G26 and G27 to the approximate positions shown on the Drawing.
- The relocation of Noise Monitoring Location N3 to N3a;
- The relocation of Dust Monitoring Location D7 to D7a;
- The relocation of Groundwater Monitoring Location BH5 to BH5a.
- Deletion of monitoring borehole BH12 as the new Borehole BH5a will provide downgradient ground water quality and level data.

### 4.12.2 Arrangements for Monitoring

The arrangements for environmental monitoring at the facility will remain the same as those stated in the Waste Licence 47-1 with the exception of the proposed changes in monitoring locations stated above.

### 4.13 Financial Provisions

Financial provisions and charges for use of the landfill facility will have regard to the provisions of the Landfill Directive and Section 53A of the Waste Management Act, 1996 as amended.

Pursuant to Condition 12.2 of the Waste Licence 47-1 a report detailing the financial provisions for the facility was issued to the Agency by ERML on 30 July 2003. Further information was provided to the Agency by letter 13 October 2003. In the mean time the licensee has secured Environmental Site Liability Insurance.

The proposed financial provisions will be as stated in the letter of 13 October 2003 (Register Reference 47-1).

4.14 Information to Accompany the Application, as Specified in Article 12(4) of the Waste Management (Licensing) Regulations, 2004

### 4.14.1 Newspaper Notice

A copy of the newspaper notice as discussed in Section 2.1.1 is attached in Appendix 1.

### 4.14.2 Text of Site Notice

A copy of the text for the site notice as discussed in Section 2.1.2 is attached in Appendix 2.

### 4.14.3 Copy of Notice to Planning Authority

A copy of the notice issued to the Planning Authority, as discussed in Section 3.1 is attached in Appendix 3.

### 4.14.4 Site Plans, Location of Site Notice and Points of Emissions

Drawing NTL/1002 shows the location of the Site Notice.

The points of emissions other than from mobile plant are as follows:

- Leachate will be removed from a holding tank, which is located as shown on Drawing NTL/1002.
- Landfill Gas will be extracted and subsequently flared and/or utilised in the proposed area shown on Drawing NTL/1002.
- The odour from the in-vessel composters will be treated and discharged from biofilters located to the west of the Waste Recycling Building in the area labelled COMPOSTING FACILITY' on Drawing NTL/1002.

All other emissions will be dispersed

The proposed monitoring locations are shown on Drawing NTL/1008.

#### 4.14.5 Fee for Waste Licence Review

The appropriate fees for the Waste Licence Review Application having regard to provision of Article 41 of the Waste Management (Licensing) Regulations 2004 are presented in Table 4.6.

A cheque for the correct amount is attached.

**Table 4.6: Appropriate Fees for Waste Licence Review Application** 

Waste Activity	Amount of Fee for a Review of Waste Licence
1.1 The disposal of waste at a landfill facility where the annual intake is likely to exceed 100,000 tonnes	€25,000
<b>4</b> The Recovery of waste	€6,000
TOTAL FEES -	€31,000

### 4.15 Compliance with Regional Waste Management Plan

#### 4.15.1 Preamble

For the purposes of this response, the following documents have been referred to:

- Kildare Waste Management Plan (Published 2000)
- Regional Planning Guidelines for the Greater Dublin Area (published 8 July 2004)
- Waste Management Taking Stock and Moving Forward (April 2004)
- Dublin Waste Management Plan (Published 2001)

### 4.15.2 Kildare Waste Management Plan

The Waste Management Plan states that Kildare County Council will support and encourage commerce and industry in the achievement of statutory targets for the recovery and recycling of packaging waste.

The Waste Management Plan for Co. Kildare (2000) also refers to the County Council encouraging the recycling of C&D waste through a number of measures. These measures include:

- The refusal of planning permission for the landfilling of C&D waste except where such development is a necessary and minimal adjunct to a C&D waste recycling undertaking.
- The development of measures designed to limit the quantity of construction and demolition (C&D) waste landfilled in the County including a ban on the acceptance of such materials at public site(s) apart from material required for engineering purposes.

With regard to disposal, the Waste Management Plan states that, in the short to medium term, Kildare County Council will consider alternative arrangements for the disposal of residual waste in co-operation with neighbouring Local Authorities. This will include:

- The encouragement of private sector collectors in the use of approved privately operated disposal facilities.
- The provision of, or the arrangement for the provision of, a waste processing and biological treatment plant.

### 4.15.3 Regional Planning Guidelines for Greater Dublin Area (published 8 July 2004)

Regional Planning Guidelines for the Greater Dublin Area (GDA) apply to the geographical areas of Dublin City, Fingal, Dun-Laoghaire-Rathdown, South Dublin, Kildare, Meath and Wicklow. The objective of the Regional Planning Guidelines is to provide a long-term (12-20 years) strategic planning framework for the development of the region. These Guidelines

were formally adopted on 8 July 2004. Excerpts relating to waste management area are as follows:

Executive Summary (Page 73) – An interregional solution should be sought, through the liaison and cooperation between relevant parties, to address the critical lack of waste disposal infrastructure within the Greater Dublin Area (GDA).

Section 8.6.3 – From a strategic perspective, the waste management industry (which includes Planning Authorities and private operators) should aim to develop integrated waste management facilities infrastructure in the Greater Dublin Area (GDA). This infrastructure includes new landfills, waste to energy plants, biological treatment and recycling facilities. In developing this infrastructure, provision should be made to:

- Develop biological treatment facilities for organic waste, further recycling and waste to energy plants to serve the needs of the GDA;
- Consider the requirements for new infrastructure in the context of the GDA, rather than the existing waste management regions.

### 4.15.4 Waste Management - Taking Stock and Moving Forward (April 2004)

According to Section 4.5.2 of this publication, the progress made in modernising Ireland's approach to waste management has been most evident in the area of recycling. However, in order to underpin the progress already made and to provide a basis for making further progress on the scale required, close attention must be made to the development of markets for recyclable materials.

A key point made in the report states that the policy approach will remain grounded in the concept of integrated waste management, based on the internationally recognised waste hierarchy, designed to achieve by 2013, the 'recycling of 85% of Construction and Demolition Waste'.

### 4.15.5 The Dublin Waste Management Plan

The Dublin Waste Management Plan (2001) sets a recycling target for Construction and Demolition (C&D) waste at 82% for the period 1999 to 2004 and it is envisaged that a considerable portion of the C&D waste recovered at the Kerdiffstown Integrated Waste Management Facility will originate in the Dublin region.

#### 4.15.6 EU Directive on the Landfill of Waste

This directive provides the context for management of wastes that regional plans must take into consideration and adhere to.

The EU Landfill Directive 1999/31/EC imposes a gradual phasing out of the disposal of biodegradable waste to landfill and sets targets for the

diversion of biodegradable municipal waste (BMW) from landfill in Ireland. The first target is for 2006 when the amount of BMW being landfilled must be reduced by 75% in relation to the 1995 figures. Further targets are set for 2009, (50%) and 2013, (35%). The significant increases in the quantities of waste being generated in Ireland since 1995, means that the quantities of waste, which must be diverted, are significant. The composting of putrescible wastes will make a contribution to the diversion of BMW from landfill.

### **4.15.7 Summary**

The proposed waste recovery and disposal infrastructure at the Kerdiffstown Integrated Waste Management Facility will assist the objectives of the Kildare and Dublin Waste Plan through enabling increased levels of recovery and recycling of C&D and C&I wastes and providing disposal facility for residual wastes that is designed, constructed, operated, monitored and managed in accordance with the Directive on the Landfill of Waste.

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