This licence was amended on 15th January 2013 under Section 42B(1)(c) of the Waste Management Acts, 1996 to 2011. The details of Amendment A must be read in conjunction with this licence. The amendment document is entitled "Technical Amendment A"

This licence was amended on 13th September 2013 under Section 42B(1) of the Waste Management Acts, 1996 to 2013. The details of Amendment B must be read in conjunction with this licence. The amendment document is entitled "Technical Amendment B".

LICENCE REG. NO. W0156-01 HAS BEEN TRANSFERRED

Please note that licence Reg. No. W0156-01 was Transferred to Mill Road Estates Limited on 06/04/2022, For further information on this please refer to Transfer Notification on the Agency's website.

Headquarters,
P.O. Box 3000,
Johnstown Castle Estate
County Wexford, Ireland

WASTE LICENCE
INERT LANDFILL

Waste Licence Register Number:	156-1
Licensee:	KTK Sand and Gravel Limited.
Location of Facility:	Kimmeens, Ballymore Eustace West and Coghlanstown East, Co. Kildare

INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

This licence is for the operation of an inert landfill in a disused sand and gravel quarry. The types of waste to be accepted are C&D material. The annual waste intake is limited to a maximum of 242,000 tonnes.

The licence requires that there will be no direct discharges to ground water. The maximum height of waste post settlement is 150m OD in order to tie in with the surrounding landscape. As the River Liffey is parallel to the southern boundary of the facility and is within 500m of the facility boundary, the licence requires that the surface water discharge is controlled via a surface water pond with a penstock for the prevention of surface water discharges in the event the monitoring indicates a contamination of the surface water. There is also a major Dublin Corporation water mains just parallel to the eastern boundary of the site. Although the landfill is located to the west of the water mains, the licence requires that the licencee protect the water mains by installing a bridging structure to enable traffic using the landfill to pass safely over the water mains.

The licensee must manage and operate the facility to ensure that the activities do not cause environmental pollution. The licensee has to carry out regular environmental monitoring and submit all monitoring results, and a wide range of reports on the operation and management of the facility, to the Agency.

The licence sets out in detail the conditions under which KTK Sand and Gravel Limited are required to operate and manage this facility.

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DECISION & REASONS FOR THE DECISION

The Environmental Protection Agency (the Agency) is satisfied, on the basis of the information available, that the requirements of Section 40(4) of the Waste Management Act, 1996 have been complied with in respect of the application for a waste licence for the activities listed hereunder in Part I.

In reaching this decision the Agency has considered the application and supporting documentation received from the applicant, all submissions and objections received from other parties and the reports of its inspectors.

Part I Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Agency, under Section 40(1) of the said Act hereby grants this Waste Licence to KTK Sand and Gravel Limited to carry on the waste activities listed below at Kimmeens, Ballymore Eustace West & Coghlanstown East, County Kildare subject to twelve conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Act 1996

Class 1.	Deposit on, in or under land (including landfill):
	This activity is limited to the deposition of inert Construction and Demolition waste only subject to the maximum quantities and other constraints listed in Schedule A: *Waste Acceptance* of this licence.
Class 5.	Specially engineered landfill, including placement into the lined discrete cells which are capped and isolated from one another and the environment
	This activity is limited to the deposition of inert Construction and Demolition waste only subject to the maximum quantities and other constraints listed in Schedule A: *Waste Acceptance* of this licence.
Class 11.	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
	This activity is limited to the blending and mixing of waste materials prior to disposal at the facility.
Class 13.	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.
	This activity is limited to storage at the sorting area of the waste materials prior to deposit in or under land. It also consists of the storage of timber materials prior to removal off-site for disposal.

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act 1996

Class 3.	Recycling or reclamation of metals and metal compounds:
	This activity is limited to the storage of metals at the proposed metal recovery area prior to removal offsite.
Class 4.	Recycling or reclamation of other inorganic materials:
	This activity is limited to the storage of inert waste and construction and demolition waste at the facility for use in site development works and site restoration.
Class 11.	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule:
	This activity is limited to the materials recovered under Class 4 above.

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 the storage of wastes within designated areas prior to recovery.

INTERPRETATION

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Act, (the Act), unless otherwise defined in this section.

Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Adequate lighting	20 lux measured at ground level.
Agreement	Agreement in writing.
Annually	At approximately twelve monthly intervals.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
Application	The application by the licensee for this waste licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
Condition	A condition of this licence.
Construction and Demolition Waste	All wastes which arise from construction, renovation and demolition activities.
Containment boom	A boom which can contain spillages and prevent them from entering drains or watercourses.
Cover material	Bricks, crushed concrete, tarmac, earth, soil, sub-soil, stone, rock or other similar natural materials; or other cover material the use of which has been agreed with the Agency.
Daily Cover	Is the term used to describe material spread (about 150mm if soil cover is used) over deposited waste at the end of each day. Synthetic materials may also be used. Its objective is to minimise odour, the amount of litter generated and to control flies and access to the waste by birds and vermin. Where soils are used for daily cover, it is recommended that they be removed at the start of the day and subsequently reused as much as possible.
Daytime	8.00 a.m. to 10.00 p.m.
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emergency	Those occurrences defined in Condition 9.4
Emission Limits	Those limits, including concentration limits and deposition levels established in *Schedule C: Emission Limits,* of this licence.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 94/3/EC and any subsequent amendment published in the Official Journal of the European Community.
Green Waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.

Hours of Operation	06.00 to 18.00 Monday to Friday inclusive and 06.30 to 14.00 Saturday.
Hours of Waste Acceptance	06.30 to 08.15 & 09.15 to 17.00 Monday to Friday during school term. 07.00 to 13.00 on Saturdays. Outside of school term: 07.30 to 17.00 Monday to Friday.
Inert waste	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.
Intermediate Cover	Refers to placement of material (minimum 300mm if soil is used) for a period of time prior to restoration or prior to further disposal of waste.
Landfill	Refers to the area of the facility where the waste is disposed of by placement on the ground or on other waste.
Landfill Gas	Gases generated from the landfilled waste.
LEL (Lower Explosive Limit)	The lowest percentage concentration by volume of a mixture of flammable gas with air which will propagate a flame at 25^{o}C and atmospheric pressure.
Licence	A Waste Licence issued in accordance with the Act.
Licensee	KTK Sand and Gravel Ltd.
List I/II Organics	Substances classified pursuant to EC Directives 76/464/EEC and 80/68/EEC.
Liquid Waste	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
Maintain	Keep in a fit state, including such regular inspection, servicing and repair as may be necessary to adequately perform its function.
Mobile Plant	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.
Monthly	A minimum of 12 times per year, at approximately monthly intervals.
Night-time	10.00 p.m. to 8.00 a.m.
Non-hazardous Asbestos Waste	Includes bonded asbestos, such as tiles, which are not classified as hazardous waste and which are authorised for disposal at the facility.
Recyclable Materials	Those waste types, such as cardboard, batteries, gas cylinders, etc, which may be recycled
Quarterly	At approximately three monthly intervals.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
Sludge	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment with between 2% and 14% dry matter.
Specified Emissions	Those emissions listed in *Schedule C: Emission Limits* of this licence.

Specified Engineering Works	Those engineering works listed in *Schedule B: Specified Engineering Works* of this licence.
Treatment	Treatment means 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.
Trigger Level	A parameter value specified in the licence, the achievement or exceedance of which requires certain actions to be taken by the licensee.
EPA Working Day	Refers to the following hours; 9.00 a.m. to 5.30 p.m. Monday to Friday inclusive.
Working Face	The area of the site in which waste other than cover material or material for the purposes of the construction of specified engineering works is being deposited.

PART II CONDITIONS

CONDITION 1 SCOPE OF THE LICENCE

1.1. Waste activities at the facility shall be restricted to those listed and described in Part I: Activities Licensed and authorised by this licence.

1.2. For the purposes of this licence, the facility is the area of land outlined in red on Figure No. 3 Rev. 01 March 2002 "Application Site Boundary" of the applicaiton. Any reference in this licence to "facility" shall mean the area thus outlined in red.

1.3. This licence is for the purposes of waste licensing under the Waste Management Act 1996 only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.

1.4. Only inert Construction and Demolition waste may be recovered and disposed of at the facility subject to the maximum quantities and other constraints listed in *Schedule A: Waste Acceptance* of this licence.

1.5. Waste Acceptance Hours and Hours of Operation

1.5.1. Waste may only be accepted at the facility for disposal at the landfill between the hours of 6.30am to 8.15am and 9.15am to 1.45pm and 2.45pm to 5.00pm Monday to Friday inclusive during school term and 7.30am to 1.00pm on Saturdays. Outside of school term, the opening hours are 7.00am to 5.00pm Monday to Friday inclusive.

1.5.2. The landfill at the facility may only be operated during the hours of 6.00am to 6.00pm Monday to Friday inclusive and 6.30am to 2.00pm on Saturdays.

1.5.3. Waste shall not be accepted at the landfill on Bank Holidays.

1.5.4. Construction of the screening banks shall only be allowed between 8.00a.m. to 8.00 p.m. Monday to Friday and 8.00a.m. to 1.00p.m. on Saturdays.

1.6 The following shall constitute an incident for the purposes of this licence:

a) an emergency;

b) any emission which does not comply with the requirements of this licence;

c) any trigger level specified in this licence which is attained or exceeded;

d) any indication that environmental pollution has, or may have, taken place, and;

e) Rejection of any waste load at the facility.

1.7 Where the Agency considers that a non-compliance with any condition of this licence has occurred, it may serve a notice on the licensee specifying:

1.7.1 That only those wastes as specified, if any, in the notice are to be accepted at the facility after the date set down in the notice;

1.7.2 That the licensee shall undertake the works stipulated in the notice, and/or otherwise comply with the requirements of the notice as set down therein, within the time-scale contained in the notice; and

1.7.3 That the licensee shall carry out any other requirement specified in the notice.

When the notice has been complied with, the licensee shall provide written confirmation that the requirements of the notice have been carried out. No waste, other than that which is stipulated in the notice, shall be accepted at the facility until written permission is received from the Agency.

1.8 Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any Condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary and shall notify the licensee in writing of any such modification or alteration. Every such plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency. Every such plan, programme or proposal agreed by the Agency shall be covered by the conditions of this licence.

REASON: To clarify the scope of this licence.

CONDITION 2 MANAGEMENT OF THE FACILITY

2.1 Facility Management

2.1.1 The licensee shall employ a suitably qualified and experienced facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation.

2.1.2 Both the facility manager and deputy, and any replacement manager or deputy, shall successfully complete both the FAS waste management training programme (or equivalent agreed with the Agency) and associated on site assessment appraisal within twelve months of appointment.

2.1.3 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience, as required and shall be aware of the requirements of this licence.

2.2 Management Structure

2.2.1 Prior to the commencement of waste activities, the licensee shall submit written details of the management structure of the facility to the Agency. Any proposed replacement in the management structure shall be notified in advance in writing to the Agency. Written details of the management structure shall include the following information

a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;

b) details of the responsibilities for each individual named under a) above; and

c) details of the relevant education, training and experience held by each of the persons nominated under a) above.

2.3 Environmental Management System (EMS)

2.3.1 The licensee shall establish and maintain an EMS. Within twelve months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement a proposal for a documented Environmental Management System (EMS) for the facility. Following the agreement of the Agency, the licensee shall establish and maintain such a system. The EMS shall be updated on an annual basis with amendments being submitted to the Agency for its agreement.

2.3.2 The EMS shall include as a minimum the following elements:

2.3.2.1 Schedule of Environmental Objectives and Targets

The objectives should be specific and the targets measurable. The Schedule shall address a five-year period as a minimum. The Schedule shall include a time-scale for achieving the objectives and targets and shall comply with any other written guidance issued by the Agency.

2.3.2.2 Environmental Management Plan (EMP)

The EMP shall include, as a minimum, the following:

(i) the items specified to be contained in an Environmental Management Plan in the Landfill Operational Practices Manual published by the Agency;

(ii) methods by which the objectives and targets will be achieved and the identification of those responsible for achieving those objectives and targets;

(iii) any other items required by written guidance issued by the Agency.

2.3.2.3 Corrective Action Procedures

The Corrective Action Procedures shall detail the corrective actions to be taken should any of the procedures detailed in the EMS not be followed.

2.3.2.4 Awareness and Training Programme

The Awareness and Training Programme shall identify training needs, for personnel who work in or have responsibility for the licensed facility.

2.4 Communications Programme

2.4.1 The licensee shall establish and maintain a Communications Programme to ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility. This shall be established within three months of the date of grant of the licence.

REASON: To make provision for the proper management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.

CONDITION 3 FACILITY INFRASTRUCTURE

3.1 The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as required by the conditions of this licence.

3.2 Specified Engineering Works

3.2.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule B: Specified Engineering Works*, of this licence, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.

3.2.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.

3.2.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall include the following information;

a) a description of the works;

b) as-built drawings of the works;

c) records and results of all tests carried out (including failures);

d) drawings and sections showing the location of all samples and tests carried out;

e) daily record sheets/diary;

f) name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;

g) name(s) of individual(s) responsible for supervision of works and for quality assurance validation of works;

h) records of any problems and the remedial works carried out to resolve those problems; and

i) any other information requested in writing by the Agency.

3.3 Facility Notice Board

3.3.1 The licensee shall provide and maintain a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.

3.3.2 The board shall clearly show:

a) the name and telephone number of the facility;

b) the normal hours of opening;

c) the name of the licence holder;

d) an emergency out of hours contact telephone number;

e) the licence reference number; and

f) where environmental information relating to the facility can be obtained.

3.4 Facility Security

3.4.1 Security and stockproof fencing and gates shall be installed and maintained as described in Section 2.4.1 "Site security" of Volume I EIS dated June 2001. The security fence and gates shall be at the locations shown on Drawing No.102 "Overview of proposed landfill development" of Volume I EIS dated June 2001. The base of the fencing shall be set in the ground.

3.4.2 The licensee shall remedy any defect in the gates and/or fencing as follows:

a) a temporary repair shall be made by the end of the working day; and,

b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

3.4.3 Gates shall be locked shut when the facility is not operational.

3.5 Facility Roads and Hardstanding

3.5.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.

3.5.2 The facility entrance area and access road shall be paved and maintained.

3.5.3 Traffic awaiting access to the landfill shall queue along the facility site access road only. No traffic shall queue on the bridging structure over the water main.

3.5.4 Prior to the commencement of any other activities at the facility, a bridging structure of a type and design to be agreed in advance with the Agency must be installed in order to protect the Dublin City Council water main. The licensee shall liase with Dublin City Council on the design of the bridging structure and on the fencing of the way leave area.

3.6 Facility Office

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

3.6.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.

3.7 Waste Inspection and Quarantine Areas

3.7.1 Prior to the commencement of any waste disposal at the facility, a Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility.

3.7.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other.

3.7.3 Drainage from these areas shall be directed to the surface water settling ponds.

3.8 Weighbridge

3.8.1 The licensee shall provide and maintain a weighbridge at the facility.

3.9 Wheel Cleaning

3.9.1 The licensee shall establish and maintain a wheelwash at the facility.

3.10 Waste Water Treatment Plant

3.10.1 The licensee shall provide and maintain a Wastewater Treatment plant at the facility for the treatment of wastewater arising on-site. Any percolation area shall satisfy the criteria set out in the Wastewater Treatment Manual, *Treatment Systems for Single Houses*, published by the Environmental Protection Agency.

3.11 Tank and Drum Storage Areas

3.11.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein. The location of the tank and drum storage areas shall be agreed with the Agency.

3.11.2 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:

(a) 110% of the capacity of the largest tank or drum within the bunded area; or

(b) 25% of the total volume of substance which could be stored within the bunded area.

3.11.3 All drainage from bunded areas shall be diverted for collection and safe disposal.

3.11.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

3.11.5 The integrity and water tightness of all the bunds and their resistance to penetration by water or other materials stored therein shall be confirmed by the licensee and shall be reported to the Agency following its installation and prior to its use as a storage area.

This confirmation shall be repeated at least once every three years thereafter and reported to the Agency on each occasion.

3.12 Landfill Lining:

3.12.1 The landfill liner shall comprise of the following:

Base and side wall

a) mineral layer of a minimum thickness of 1m with a hydraulic conductivity less than or equal to 1.0×10^{-7} m/s ; or

b) artificial mineral layer of minimum thickness 0.5 metres providing the same level of protection as a) above.

3.12.2 The liner detailed design and its construction shall be in accordance with the guidelines provided in the Agency's Landfill Manual, Landfill Site Design.

3.13 Surface Water Management

3.13.1 Effective surface water management infrastructure shall be provided and maintained at the facility during construction, operation, restoration and aftercare of the facility.

3.13.2 Prior to the commencement of the licensed activities at the facility, the licensee shall provide for a surface water pond(s) to be installed for surface water management from the completed areas. This pond shall control the discharge to the soakaways.

3.13.3 The outlet from the surface water pond(s) shall incorporate a penstock for preventing surface water discharges in the event that monitoring should indicate contamination of the surface water.

3.13.4 The licensee shall ensure protection of the surface water resources within and in the vicinity of the facility during construction of the surface water management infrastructure and surface water pond(s). During construction works silt fences must be provided in all drainage channels to prevent erosion of soil and sediment into the streams.

3.13.5 The licensee shall install a low clay fill berm along the edge of the pit and/or the wayleave to ensure there is no surface water runoff into the wayleave from the licensed facility.

3.13.6 All surface water from the hardstanding areas should pass through a silt trap and a Class 1- by pass oil separator prior to discharge from the facility.

3.14 Replacement of Infrastructure

Monitoring infrastructure which is damaged or proves to be unsuitable for its purpose shall be replaced within three months of it being damaged or recognised as being unsuitable.

REASON: To provide appropriate infrastructure for the protection of the environment.

CONDITION 4 RESTORATION AND AFTERCARE

4.1. The final height of waste at the facility shall be a maximum of 150mOD Malin after compaction and must take the restoration height established in Condition 4.2 into account.

4.2. The licensee shall restore the facility on a phased basis. Following consultation with the Local Authority and the local community, the licensee shall submit, for the Agency's agreement, within eighteen months of the date of this licence, a revised Restoration and Aftercare Plan for the facility that shall tie-in with the surrounding land levels where applicable.

4.3. Final Capping

4.3.1. 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;

4.4. No material or object that is incompatible with the proposed restoration of the facility shall be present within one metre of the final soil surface levels.

4.5. Soil Storage

All soils shall be stored to preserve the soil structure for future use.

REASON: To provide for the restoration of the facility

CONDITION 5 FACILITY OPERATION AND WASTE MANAGEMENT

5.1 Wastes shall not be deposited in any cell or part of the landfill without the prior agreement of the Agency.

5.2 Waste Acceptance and Characterisation Procedures

5.2.1 The waste analysis testing (Schedule A) shall use standardised and internationally accepted procedures and shall be carried out by a competent laboratory. Details shall be submitted to the Agency for its agreement prior to waste acceptance at the facility.

5.2.2 Wastes that exceed the limit values set in Schedule A.4 shall not be landfilled at the facility.

5.2.3 The licensee shall submit to the Agency for its agreement detailed written procedures for the acceptance, verification and handling of all wastes prior to the commencement of waste activities. The written procedures shall at a minimum include the requirements of Level 1, 2 and 3 characterisation testing (Schedule A.3*: Acceptance Criteria* of this licence).

5.2.4 The licensee shall undertake an assessment of all wastes to be disposed of in the landfill. This assessment shall include at a minimum the items outlined in Schedule A: *Waste Acceptance* of this licence. Waste disposal at the facility shall only be permitted if the assessment satisfies the criteria set out in Schedule A.3: *Acceptance Criteria* of this licence.

5.2.5 In addition to the above, all wastes accepted for disposal at the landfill shall undergo the Level 3: On-site verification set out in Schedule A: *Waste Acceptance* of this licence. At a minimum, Level 3 requires that all wastes shall be checked at the working face to ensure that they comply with the requirements of the licence. Any wastes deemed to be in contravention of this licence and/or unsuitable for recovery or disposal at this facility 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 three months. A record of all inspections shall be maintained.

5.3 Working Face

Unless the prior agreement of the Agency is given, only one working face shall exist at the landfill at any one time for the deposit of waste other than cover or restoration materials.

5.4 Landscaping

Landscaping of the facility as described in Section 3.7 "Landscape" of Volume I EIS dated June 2001 shall be carried out as applicable and all enabling landscape works shall be carried out prior to the commencement of the facility operation.

5.5 Operational Controls

5.5.1 The landfill shall be filled in accordance with the two phase sequence outlined in Section 2.5.4 "Landfill phasing and construction" of Volume I and Figure 102 "Overview of proposed landfill development" EIS dated June 2001.

5.5.2 The licensee shall ensure that inert waste is subject to pre-treatment off-site where technically feasible. Inert waste shall only be stored at the facility for use in site development works and site restoration.

5.5.3 Wastes once deposited and covered shall not be excavated, disturbed or otherwise picked over, unless with the prior agreement from the Agency.

5.5.4 Completed areas of the landfill shall be profiled so that no depressions exist in which water may accumulate. Any depressions arising after profiling shall be rectified by the emplacement of suitable capping or restoration materials

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

5.5.6 Scavenging shall not be permitted at the facility.

5.5.7 Gates shall be locked shut when the facility is unsupervised.

5.5.8 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.

5.5.9 Fuels shall only be stored at appropriately bunded locations on the facility.

5.5.10 All tanks and drums shall be labelled to clearly indicate their contents.

5.5.11 No smoking shall be allowed on the facility other than in the site office.

5.6 Off-site Disposal and Recovery

5.6.1 Waste sent off-site for recovery or disposal shall only be conveyed by a waste contractor agreed by the Agency;

5.6.2 All waste transferred from the facility shall only be transferred to an appropriate facility agreed by the Agency;

5.6.3 All wastes removed off-site for recovery or disposal shall be transported from the facility to the consignee in a manner which will not adversely affect the environment.

5.7 Maintenance

5.7.1 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.

5.7.2 The licensee shall maintain and clearly label and name all sampling and monitoring locations.

5.7.3 The wheel-wash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel-wash and disposed of at the working face.

REASON: To provide for appropriate operation of the facility to ensure protection of the environment.

CONDITION 6 EMISSIONS

6.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule C: Emission Limits* of this licence. There shall be no other emissions of environmental significance.

6.2. The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.

6.3. Emissions to Surface Water

6.3.1. No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.

6.4. Ground water Management

6.4.1. There shall be no direct emissions to groundwater.

6.4.2. Prior to the acceptance of waste at the facility, the licencee shall submit to the Agency four data sets for groundwater monitoring in order to establish trigger levels in accordance with the requirements of the Directive 1999/31/EC.

6.4.3. Effective groundwater management infrastructure shall be provided and maintained at the facility during construction, operation, restoration and aftercare of the facility. As a minimum, the infrastructure shall be capable of the following:

a) the protection of the groundwater resources from pollution by the waste activities; and

b) the protection of other infrastructure, such as the liner, from any adverse effects caused by the groundwater.

6.5. Particulate levels

6.5.1. The trigger level for PM_{10} from the facility measured at any location on the boundary of the facility is:

a) PM_{10} greater than $50\mu g/m^3$ for a daily sample.

REASON: To control emissions from the facility and provide for the protection of the environment.

CONDITION 7 NUISANCE CONTROL

7.1 The licensee shall ensure that vermin, birds, flies, mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.

7.2 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.

7.3 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.

7.4 Dust Control

In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.

7.5 Prior to exiting the facility, all commercial vehicles shall use the wheelwash.

7.6 All stockpiles shall be adequately maintained to minimise dust generation.

REASON: To provide for the control of nuisances

CONDITION 8 MONITORING

8.1. The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule D: Monitoring* of this licence and as specified in this licence. Unless otherwise specified by this licence, all environmental monitoring shall commence no later than two weeks after the acceptance of waste at the facility.

8.2. The licensee shall amend the frequency, locations, methods and scope of monitoring as required by this licence only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.

8.3. Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturers' instructions (if any) so that all monitoring results accurately reflect any emission, discharge or environmental parameter.

8.4. The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.

8.5. Noise Monitoring

8.5.1. The licensee shall carry out noise monitoring at the locations specified on Drawing 3.1.1 "Monitoring locations" of EIS Vol 2 June 2001.

8.6. Groundwater Monitoring

8.6.1. Subject to the agreement of the well owners, all private wells within 250m of the facility shall be included in the monitoring programme set out in *Schedule D: Monitoring* of this licence.

8.6.2. Groundwater trigger levels shall be agreed with the Agency prior to waste acceptance as per Condition 6.4.2.

8.6.3. The licensee shall install three additional groundwater monitoring locations along the watermain wayleave at locations to be agreed with the Agency.

8.7. Surface Water Monitoring

8.7.1. Within three months from the date of grant of this licence, the licensee shall initiate a monitoring programme for the surface water discharged from the settling pond(s) at the

facility and at one upstream, and one downstream, location on the River Liffey to be agreed with the Agency. This programme shall have regard to the criteria/trigger levels which will determine when the penstock in the outlet from the surface water pond(s) shall be closed. The programme shall, at minimum, fulfil the requirements of *Schedule D.4.1: Surface Water Monitoring* of this licence.

8.7.2. Prior to the acceptance of waste at the facility, and annually thereafter, the licensee shall carry out an analysis on the surface water for the parameters listed in Schedule D.4.2 and provide a report to the Agency on the results of that analysis. The sampling point for this monitoring shall be SW2 as per Figure 4.1 "Proposed Monitoring Locations" EIS June 2001, unless otherwise agreed in advance with the Agency.

8.8. Meteorological Monitoring

8.8.1. Prior to the commencement of waste activities the licensee shall either provide and maintain a meteorological station at the facility capable of monitoring the parameters listed in *Schedule D.5: Meteorological Monitoring* of this licence, or the licensee shall make arrangements for representative meteorological data to be collated for the facility to fulfil the requirements of *Schedule D.5: Meteorological Monitoring* of this licence.

8.9. A topographical survey shall be carried out within six months of the commencement of the waste activities on-site. The survey shall include a measurement of the remaining available void space. It shall be repeated annually thereafter. The survey shall be in accordance with any written instructions issued by the Agency.

8.10. Archaeological Assessment

8.10.1. Prior to the development of any undisturbed area, the advice of Dúchas the Heritage Service shall be sought. On completion of such development a report of the results of any archaeological monitoring shall be submitted to Dúchas and to the Agency.

8.11. Stability Assessment

8.11.1. Within six months of the date of grant of this licence, and annually thereafter, the licensee shall carry out a stability assessment of the side slopes of the facility.

8.12. Nuisance Monitoring

8.12.1. The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, mud, dust and odours.

8.13. All persons conducting the sampling, monitoring and interpretation as required by this licence shall be suitably competent.

REASON: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions

CONDITION 9 CONTINGENCY ARRANGEMENTS

9.1. In the event of an incident the licensee shall immediately:

a) identify the date, time and place of the incident;

b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;

c) isolate the source of any such emission;

d) evaluate the environmental pollution, if any, caused by the incident;

e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;

f) provide a proposal to the Agency for its agreement within one month of the incident occurring to:

i) identify and put in place measures to avoid reoccurrence of the incident; and

ii) identify and put in place any other appropriate remedial action.

9.2. The licensee shall, prior to the acceptance of waste at the facility, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment. This shall include a risk assessment to determine the requirements at the facility for fire fighting and fire water retention facilities. The Fire Authority and the Dublin City Council Water Division shall be consulted by the licensee during this assessment.

9.3. The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.

9.4. Emergencies

9.4.1. All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects;

9.4.2. No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities;

9.4.3. In the event that monitoring of local wells indicates that the facility is having a significant adverse effect on the quantity and/or quality of the water supply this shall be treated as an emergency and the licensee shall provide an alternative supply of water to those affected.

9.4.4. In the event that monitoring of the side slopes of the facility indicate that there may be a risk of slope failure this will be treated as an emergency.

REASON: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions

CONDITION 10 RECORDS

10.1 The licensee shall keep the following documents at the facility office.

a) the current waste licence relating to the facility;

b) the current EMS for the facility;

c) the previous year's AER for the facility;

d) all written procedures produced by the licensee which relate to the licensed activities.

10.2 The licensee shall maintain a written record for each load of waste arriving at and leaving the facility. The licensee shall record the following as appropriate:

a) The ultimate destination of the waste load leaving the facility (facility name and waste licence/permit number)

b) the date;

c) the name of the carrier (including if appropriate, the waste carrier registration details);

d) the vehicle registration number;

e) the name of the producer(s)/collector(s) of the waste as appropriate;

f) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;

g) a description of the waste including the associated EWC codes;

h) the quantity of the waste, recorded in tonnes;

i) the name of the person checking the load.

10.3 Written Records

The following written records shall be maintained by the licensee:

a) the types and quantities of waste recovered and disposed of at the facility each year. These records shall include the relevant EWC Codes;

b) all training undertaken by facility staff;

c) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;

d) details of all nuisance inspections; and

e) the names and qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.

10.4 The licensee shall maintain a written record of all complaints relating to the operation of the activity. Each such record shall give details of the following:

a) date and time of the complaint;

b) the name of the complainant;

c) details of the nature of the complaint;

d) actions taken on foot of the complaint and the results of such actions; and,

e) the response made to each complainant.

10.5 A written record shall be kept at the facility of the programme for the control and eradication of vermin and fly infestations at the facility. These records shall include as a minimum the following:

a) the date and time during which spraying of insecticide is carried out;

b) contractor details;

c) contractor logs and site inspection reports;

d) details of the rodenticide(s) and insecticide(s) used;

e) operator training details;

f) details of any infestations;

g) mode, frequency, location and quantity of application; and,

h) measures to contain sprays within the facility boundary.

REASON: To provide for the keeping of proper records of the operation of the facility

CONDITION 11 REPORTS AND NOTIFICATIONS

11.1 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:

a) be sent to the Agency's headquarters;

b) comprise one original and three copies unless additional copies are required;

c) be formatted in accordance with any written instruction or guidance issued by the Agency;

d) include whatever information as is specified in writing by the Agency;

e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;

f) be submitted in accordance to the relevant reporting frequencies specified by this licence, such as in *Schedule E: Recording and Reporting to the Agency* of this licence;

g) be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and

h) be transferred electronically to the Agency's computer system if required by the Agency.

11.2 In the event of an incident occurring on the facility, the licensee shall:

a) notify the Agency as soon as practicable and in any case not later than 10.00 a.m. the following working day after the occurrence of any incident;

b) submit a written record of the incident, including all aspects described in Condition 9.1(a-e), to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident; and

c) in the event of any incident which relates to discharges to surface/sewer water, notify Eastern Regional Fisheries Board as soon as practicable and in any case not later than 10:00 a.m. on the following working day after such an incident.

d) Should any further actions be taken as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.

11.3 Waste Recovery Reports

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 details:

a) the separation of recyclable materials from the waste;

b) the recovery of Construction and Demolition Waste;

c) the recovery of metal waste;

d) inert waste to be used for cover/restoration material at the facility;

11.4 Reports relating to Facility Operations

11.4.1. Achievement of Final Profile

11.4.2.1 Within nine months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, proposals for landfilling and restoration to achieve the final profile of the facility to the Agency for its agreement.

11.5 Vermin and Flies

11.5.1. Prior to the commencement of waste activities, the licensee shall submit to the Agency for its agreement a proposal for the control and eradication of vermin and fly infestations at the facility. This proposal should include as a minimum, operator training, details on the rodenticide(s) and insecticide(s) to be used, mode and frequency of application and measures to contain sprays within the facility boundary.

11.6 Monitoring Locations

11.6.1. Within three months of the date of grant of this licence, the licensee shall submit to the Agency an appropriately scaled drawing(s) showing all the monitoring locations that are stipulated in this licence. The drawing(s) shall include the reference code of each monitoring point.

11.7 Annual Environmental Report

11.7.1. 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).

11.7.2. The AER shall include as a minimum the information specified in *Schedule F: Content of Annual Environmental Report* of this licence and shall be prepared in accordance with any relevant written guidance issued by the Agency.

11.8 Energy Efficiency

The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this licence. The licensee shall consult with the Agency on the nature and extent of the audit and shall develop an audit programme to the satisfaction of the Agency. A copy of the audit report shall be available on-site for inspection by authorised persons of the Agency and a summary of the audit findings shall be submitted to the Agency as part of the Annual Environmental Report. The energy efficiency audit shall be repeated at intervals as required by the Agency.

REASON: To provide for proper reports to and notifications to the Agency.

CONDITION 12 CHARGES AND FINANCIAL PROVISIONS

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of £ 5,500 (€ 6,983) or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Act, 1996. The licensee shall in 2003 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Public Sector Average Earnings Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 2002, the licensee shall pay a pro rata amount from the date of this licence to 31st December. This amount shall be paid to the Agency within one month of the date of grant of this licence.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased the licensee shall contribute such sums as determined by the Agency to defraying its costs.

12.2 Financial Provision for Closure, Restoration and Aftercare

12.2.1 The licensee shall arrange for the completion of a comprehensive and fully costed Environmental Liabilities Risk Assessment for the facility which will address liabilities arising from the carrying on of the activities to which this licence relates. A report on this assessment shall be submitted to the Agency for its agreement within six months of date of grant of this licence and prior to the commencement of waste disposal activities.

12.2.2 Prior to the commencement of waste disposal activities, the licensee shall make a Proposal for Financial Provision to the Agency for its agreement to cover any liabilities incurred by the licensee in carrying on the activities to which this licence relates. Such provision shall be maintained by the licensee unless otherwise agreed by the Agency.

12.2.3 The amount of financial provision, held under Condition 12.2.2 shall be reviewed and revised as necessary, but at least annually. Any proposal for such a revision shall be submitted to the Agency for its agreement.

12.2.4 The licensee shall within two weeks of purchase, renewal or revision of the financial provision required under Condition 12.2.2, forward to the Agency written proof of such indemnity.

12.2.5 Unless otherwise agreed any revision to the fund shall be computed using the following formula:

$$Cost = (ECOST \times WPI) + CiCC$$

Where:

Cost = Revised restoration and aftercare cost

ECOST = Existing restoration and aftercare cost

WPI = Appropriate Wholesale Price Index [Capital Goods, Building & Construction (i.e. Materials & Wages) Index], as published by the Central Statistics Office, for the year since last closure calculation/revision.

CiCC = Change in compliance costs as a result of change in site conditions, changes in law, regulations, regulatory authority charges, or other significant changes.

12.3 The licencee shall ensure the costs in the setting up, operation of, provision of financial security and closure and aftercare for a period of at least 30 years shall be covered by the price to be charged for the disposal of waste at the facility.

REASON: To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.

SCHEDULE A : Waste Acceptance

A.1 Waste Acceptance

Table A.1 Waste Categories and Quantities

WASTE TYPE	MAXIMUM (TONNES PER ANNUM)
Construction & Demolition	242,000
TOTAL	242,000

A.2 Acceptable Waste

Disposal

Only the inert wastes in Table A.2.1 are acceptable for disposal at the facility, unless otherwise agreed with the Agency. In addition the waste in Table A.2.1 below must satisfy the criteria in A.3 Acceptance Criteria and Table A.4 Limit values for pollutant content for inert waste landfills, of this licence.

Table A.2.1 Waste for Disposal

EWC Code	Description	Restrictions
10 11 03	Waste glass based fibrous materials	Only without organic binders
15 01 07	Glass packaging	
17 01 01	Concrete	
17 01 02	Bricks	
17 01 03	Tile and Ceramics	
17 01 07	Mixtures of concrete, bricks, tiles and ceramics	
17 02 02	Glass	
17 05 04	Soil and Stones	Excluding Topsoil, peat; excluding soil and stones from contaminated sites
20 01 02	Glass	Separately collected glass only
20 02 02	Soil and Stones	Only from garden and parks waste; Excluding top soil, peat

Recovery

Only the wastes in Table A.2.2 are acceptable for recovery at the facility, unless otherwise agreed with the Agency.

Table A.2.2 Waste for Recovery

WASTE	
Topsoil	Solid Road Planings, Solid Tarmacadam, Solid Asphalt
Subsoil	Brickwork
Stone, Rock and Slate	Natural Sand
Clay	Concrete
Pottery and China	Timber
Metals	

A.3 Acceptance Criteria

The general characterisation and testing must be based on the following three level hierarchy:

Level 1: Basic Characterisation
This constitutes a through determination, according to standardised analysis and behaviour testing methods, of the short and long-term leaching behaviour and/or characteristic properties of the waste.
Level 2: Compliance Testing
This constitutes periodical testing by simpler standard analysis and behaviour-testing methods to determine whether a waste complies with condition and /or specific reference criteria. The tests focus on key variables and behaviour identified by basic characterisation.
Level 3: On-site verification
This constitutes rapid check methods to confirm that a waste is the same as that which has been subjected to compliance testing and that which is described in any accompanying documents. It may merely consist of a visual inspection of a load of waste before and after unloading at the landfill site.

All waste loads must provide the following information (if available) :

Waste owner	Amount of waste
Source and origin of waste	Existing data on the waste
Description of the waste	Physical form
Waste Type and EWC code	Colour
Type of process producing the waste	Odour

All wastes accepted for disposal at the landfill shall undergo the Level 3: On-site verification at a minimum.

In addition to the above a representative load from every excavation/demolition/waste removal works is subjected to a comprehensive assessment which must satisfy Level 1 characterisation.

The comprehensive assessment must at a minimum include the following:
1. A chemical analysis of a representative sample. At least one sample per 1,500 tonnes or portion thereof must be taken for chemical analysis for each excavation or demolition works. However, if the comprehensive assessment is undertaken prior to the commencement of excavation or clearance activity, the licensee may reduce the number of samples for chemical analysis to one for each 7,500 tonnes or portion thereof. The sampling location must be identified on a sampling grid and enclosed in the comprehensive assessment.
2. An evaluation of the acceptability of the disposal of the waste at the landfill including observance of limits for total pollutants contents in Schedule G.4 below.
3. A statement of any pre-treatment requirement (if any).
4. Evidence that the waste displays no hazardous properties upon disposal.

If as a result of examinations undertaken in the course of excavation or clearance activity, the suspicion of contamination should arise, the type and concentration of the contamination must be determined, and its extent established through additional sampling.

Wastes of unknown origin or with insufficient waste description must be subjected to a chemical analysis.

In addition to the assessment above representative samples upon delivery of wastes must be taken for compliance testing purposes (Level 2). The tests shall focus on key variables and behaviour identified by the chemical analysis.

A representative sample shall be taken from one in every 100 loads of waste accepted at the facility. This sample shall be subjected to Level 2 testing. Part of this sample shall be retained at the facility for three months and be available for inspection/analysis by the Agency.

A.4 Limit values for pollutant content for inert wast landfills.

The following limit values relate to the average amount of constituent substances in the waste. The mean value of all individual measuring values from one bulk sample must not exceed the limit value concerned. (refer to Condition 5.2.2)

Parameter	Limit Value (mg/kg dry mass, not including pH value and Electrical Conductivity)	
	Total Pollutant Contents	Eluate
pH		6 –13
Electrical conductivity		300
Dry residue		25,000
Arsenic (as As)	200.0	0.75
Aluminium (as Al)		20.0
Barium (as Ba)		20.0
Lead (as Pb)	500.0	2.0
Boron (as b)		30.0
Cadmium (as Cd)	10.0	0.5
Chromium, total (as Cr)	500.0	2.0
Chromium, hexavalent (as Cr)		0.5
Cobalt (as Co)	100.0	2.0
Copper (as Cu)	500.0	10.0
Nickel (as Ni)	500.0	2.0
Mercury (as Hg)	3.0	0.05
Silver (as Ag)		1.0
Zinc (as Zn)	1500.0	20.0
Tin (as Sn)		10.0
Ammonium (as N)		40.0
Chloride (as Cl)		5000.0
Cyanide, easily liberatable (as Cn)		1.0
Fluoride (as F)		50.0
Nitrate (as N)		500.0
Nitrite (as N)		10.0
Phosphate (as P)		50.0
Sulphate (as SO4)		5000.0

TOC (as C)	30,000.0 Note 1	500.0
Total hydrocarbons	100.0	50.0
EOX		3.0
Total PAH Note 2	2.0	

Note 1: The TOC limit value is complied with as long as the loss on ignition does not exceed 5% per weight.
Note 2: For determining the total of PAH, the following six compounds must be added to a sum: flouranthene, benzoic(a)pyrene, benzoic(b)flouranthene, benzoic(k)flouranthene, benzoic(g,h,I)perylene, indenoic(1,2,3,-c,d)pyrene.

SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Development of the facility including preparatory works and lining.
Landfill capping including temporary, intermediate and final
Restoration and Aftercare works
Installation of weighbridge
Ducting of ESB lines
Installation of waste quarantine and waste inspection areas
Installation of Wheel Cleaning
Installation of Surface Water Management Infrastructure
Installation of bridging structure
Installation of screening banks
Any other works notified in writing by the Agency.

SCHEDULE C :Emission Limits

C.1 Noise Emissions: (Measured at the monitoring points indicated in *Table 3.8.1* of Volume I EIS dated June 2001.

Day dB(A) L_{Aeq}(30 minutes)	Night dB(A) L_{Aeq}(30 minutes)
55*	45

****During the construction of the screening banks, the daytime noise emissions shall not exceed 66 dB(A) at any noise sensitive location.***

C.2 Dust Deposition Limits: (Measured at the monitoring points indicated in *Drawing 4.1 "Proposed monitoring locations"* of Volume I EIS dated June 2001

Level (mg/m^2 /day)[Note 1]
350

Note 1: 30 day composite sample with the results expressed as mg/m^2 /day.

C.3 Surface Water Discharge Limits: Measured at the monitoring points on Figure 4.1 "Proposed monitoring locations" EIS Vol I June 2001

Level (Suspended Solids mg/l)
35

SCHEDULE D : Monitoring

Monitoring to be carried out as specified below.

D.1 Monitoring Locations

Monitoring locations shall be those as set out in Table D.1.1 and Section 4 "Environmental monitoring" Figure 4.1 "Proposed Monitoring locations" of Volume I EIS dated June 2001 and Figure 3.1.1 "Monitoring locations" Appendix 9 Volume II of the application.

Table D.1.1 Monitoring Locations

DUST	NOISE	SURFACE WATER	GROUND WATER
STATIONS	STATIONS	STATIONS	STATIONS
D1	N1	SW1	GW1
D2	N2	SW2	GW2
D3	N3	Surface water pond(s)	GW3
D4	N4		GW4
D5	N5		Private wells under Condition 8.6
D6	N6		
	N7		
	N8		
	N9		

Additional locations required under Condition 8.7.1
And three locations as agreed under Condition 8.6.3

D.2 Dust

Table D.2.1 Dust Monitoring Frequency and Technique

Parameter ($mg/m^2/day$)	Monitoring Frequency	Analysis Method/Technique
Dust	Quarterly Note 2	Standard Method Note 1

Note 1: Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). A modification (not included in the standard) which 2 methoxy ethanol may be employed to eliminate interference due to algae growth in the gauge.

Note 2: Twice during the period May to September.

D.3 Noise

Table D.3.1 Noise Monitoring Frequency and Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
$L(A)_{EQ}$ [30 minutes]	Annually Note 2	Standard Note 1
$L(A)_{10}$ [30 minutes]	Annually Note 2	Standard Note 1
$L(A)_{90}$ [30 minutes]	Annually Note 2	Standard Note 1
Frequency Analysis (1/3 Octave band analysis)	Annually Note 2	Standard Note 1

Note 1: "International Standards Organisation. ISO 1996. Acoustics - description and Measurement of Environmental noise. Parts 1, 2 and 3."

Note 2: At least twice yearly during the construction of the screening banks.

D.4 Surface Water, Groundwater and Leachate

Table D.4.1 Water and Leachate - Parameters / Frequency

Parameter Note 1	SURFACE WATER Monitoring Frequency	GROUNDWATER Monitoring Frequency
Visual Inspection/Odour	Weekly	Quarterly
Groundwater Level	Not Applicable	Monthly
Leachate Level	Not Applicable	Not Applicable
Ammoniacal Nitrogen	Biannually Note 6	Quarterly
BOD	Biannually Note 6	Not Applicable
COD	Biannually	Not Applicable
Chloride	Biannually	Quarterly
Dissolved Oxygen	Biannually	Quarterly
Electrical Conductivity	Quarterly Note 6	Quarterly
pH	Quarterly Note 6	Quarterly
Total Suspended Solids	Quarterly Note 6	Not Applicable
Temperature	Quarterly Note 6	Quarterly

Parameter [Note 1]	SURFACE WATER Monitoring Frequency	GROUNDWATER Monitoring Frequency
Boron	Not Applicable	Annually
Cadmium	Biannually	Annually
Calcium	Biannually	Quarterly
Chromium (Total)	Not Applicable	Annually
Copper	Not Applicable	Annually
Cyanide (Total)	Not Applicable	Annually
Fluoride	Not Applicable	Annually
Iron	Not Applicable	Quarterly
Lead	Not Applicable	Annually
List I/II organic substances [Note 2]	Once Off	Annually
Magnesium	Annually	Annually
Manganese	Biannually	Quarterly
Mercury	Not Applicable	Annually
Potassium	Not Applicable	Quarterly
Sulphate	Biannually	Quarterly
Sodium	Biannually	Quarterly
Total Alkalinity	Biannually	Annually
Total Phosphorus / orthophosphate	Biannually [Note 4]	Annually
Total Oxidised Nitrogen	Not Applicable	Quarterly
Total Organic Carbon	Not Applicable	Quarterly
Residue on evaporation	Not Applicable	Annually
Zinc	Not Applicable	Annually
Phenols	Not Applicable	Quarterly
Faecal Coliforms [Note 3]	Not Applicable	Annually
Total Coliforms [Note 3]	Not Applicable	Annually
Biological Assessment	Annually[Note5]	Not Applicable

Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.

Note 2: Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list I/II Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include: volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (US Environmental Protection Agency method 525 or equivalent, and pesticides (US Environmental Protection Agency method 608 or equivalent).

Note 3: In the case where groundwater is extracted for drinking water and there is evidence of bacterial contamination, the analysis at monitoring points downgradient of the landfill should include enumeration of total bacteria at 22^{o}C and 37^{o}C and faecal streptococci.

Note 4: Discharge of diverted surface water/groundwater, at a monitoring location to be Agreed with the Agency in accordance with Condition 8.8.1, shall be monitored on a monthly basis for these parameters unless flow in that month does not allow such monitoring.

Note 5: Appropriate biological methods (such as EPA Q-Rating System to be used for the assessment of rivers and streams).

Note 6: Include monitoring for suspended solids on a weekly basis at the outlet from the surface water pond.

Note 7: Daily visual inspection of surface water shall be undertaken at the discharge from surface water pond(s).

Table D.4.2 Surface Water - Parameters

Parameter
Atrazine
Dichloromethane
Simazine
Toluene
Tributyltin [Note 1]
Xylenes
Arsenic
Hardness as mg/l Ca/CO_3
Chromium
Copper
Cyanide
Fluoride
Lead
Nickel
Zinc

Note 1: Applies in relation to tidal water only.

Total metals (dissolved and colloidal/suspended solids) to be analysed for.

D.5 Meteorological Monitoring

Table D.5.1 Meteorological Monitoring:
Data to be obtained from a source agreed by the Agency

Parameter	Monitoring Frequency	Analysis Method/Technique
Precipitation Volume	Daily	Standard
Temperature (min/max.)	Daily	Standard
Wind Force and Direction	Daily	Standard
Evaporation	Daily	Standard
Evapotranspiration	Daily	Standard
Humidity	Daily	Standard
Atmospheric Pressure	Daily	Standard

D.6 Emissions to atmosphere

Table D.7.1 PM_{10} and Odour Monitoring Frequency and Technique

Parameter [Note 1]	Monitoring Frequency	Analysis Method/Technique
PM_{10}($\mu g/m^3$) [Note 4]	Bi-annually	See [Note 2]

Note 1: Meteorological monitoring to be carried out concurrently with all above monitoring.
Note 2: As described in prEN12341 "Air Quality - field test procedure to demonstrate reference equivalence of sampling methods for PM10 fraction of particulate matter" or an alternative agreed in writing with the Agency.
Note 3: Locations for PM_{10} sampling are as per Dust Monitoring locations above.

SCHEDULE E :Recording and Reporting to the Agency

Report	Reporting Frequency Note1	Report Submission Date
Environmental Management System Updates	Annually	One month after the end of the year reported on.
Annual Environment Report (AER)	Annually	Thirteen months from the date of grant of licence and one month after the end of each year thereafter.
Record of incidents	As they occur	Within five days of the incident.
Bund, tank and container integrity assessment	Every three years	Six months from the date of grant of licence and one month after end of the three year period being reported on.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Monitoring of Surface Water Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Groundwater Quality	Quarterly	Ten days after end of the quarter being reported on.
Meteorological Monitoring	Annually	One month after end of the year being reported on.
Dust Monitoring	Three times a year	Ten days after the period being reported on
Noise Monitoring	Annually	One month after end of the year being reported on.
Monitoring of emissions to atmosphere	Bi-annually	Ten days after the period being reported on
Any other monitoring	As they occur	Within ten days of obtaining results.

Note 1*:* Unless altered at the request of the Agency.

SCHEDULE F :Content of the Annual Environmental Report

Annual Environmental Report Content
Reporting Period. Waste activities carried out at the facility. The following summary information should be presented graphically where possible: • Quantity and Composition of waste received, disposed of and recovered during the reporting period and each previous year. • Summary report on emissions. • Summary of results and interpretation of environmental monitoring. • Resource and energy consumption summary. • Waste recovery progress and achievements Proposed development of the facility and timescale of such development. Calculated remaining capacity of the facility and year in which final capacity is expected to be reached. Methods of deposition of waste. Report on development works undertaken during the reporting period, and a timescale for those proposed during the coming year. Report on restoration of completed cells/ phases. Site survey showing existing levels of the facility at the end of the reporting period. Estimated annual and cumulative quantity of indirect emissions to groundwater. Annual water balance calculation and interpretation. Report on the progress towards achievement of the Environmental Objectives and Targets contained in previous year's report. Schedule of Environmental Objectives and Targets for the forthcoming year. Full title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation. Tank, pipeline and bund testing and inspection report. Reported incidents and Complaints summaries. Review of Nuisance Controls. Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information. Report on training of staff. Any other items specified by the Agency.

Sealed by the seal of the Agency on this the 21st day of June 2002

PRESENT when the seal of the Agency was affixed hereto:

Declan Burns, Director/Authorised Person