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Ireland

**WASTE LICENCE  
Recommended Decision**

<b>Licence Register Number:</b>	<b>W0254-01</b>
<b>Company Register Number:</b>	<b>79451</b>
<b>Applicant/Licensee:</b>	<b>Cemex (ROI) Limited</b>
<b>Location of Facility:</b>	<b>Walshestown, Blackhall, Tipperkevin, Bawnoge, Naas, County Kildare</b>

## ***INTRODUCTION***

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

**The inert landfill site is located within the townlands of Walshestown, Tipperkevin, Bawnogue and Blackhall in Co. Kildare. The site is owned by Readymix plc., and operated by Cemex (ROI) Limited. The site is an existing worked-out sand and gravel pit and is approximately 68 ha. The lands to the west of the site are occupied by the Punchestown Complex. Cemex (ROI) Limited has planning permission (Ref. No. 08/2159) for the continued restoration of the worked-out pit. The objective is to return the site to its former landscape character.**

**The development site will include buffer lands (where no works will be carried out), reception area, an inert waste processing area, surface water management ponds, perimeter screening and landscaped berms, and engineered cells where inert soil, stone and construction & demolition waste will be placed to restore the site and recreate a new landform.**

The licence sets out in detail the conditions under which **Cemex (ROI) Limited** will operate and manage this facility.

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## ***Glossary of Terms***

All terms in this licence should be interpreted in accordance with the definitions in the Environmental Protection Agency Acts 1992 to 2012 / Waste Management Acts 1996 to 2012, unless otherwise defined in the section.

<b>Adequate lighting</b>	20 lux measured at ground level.
<b>AER</b>	Annual Environmental Report.
<b>Agreement</b>	Agreement in writing.
<b>Annually</b>	At approximately twelve-monthly intervals.
<b>Application</b>	The application by the licensee for this licence.
<b>Appropriate Facility</b>	A waste management facility, duly authorised under relevant law and technically suitable.
<b>Attachment</b>	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
<b>BAT</b>	Best Available Techniques.
<b>Biannually</b>	At approximately six – monthly intervals.
<b>CEN</b>	Comité Européen De Normalisation – European Committee for Standardisation.
<b>Characterisation of waste</b>	The sampling and analysis of waste to determine, amongst other things, its nature and composition, including the proportions of biodegradable, recyclable and other materials in the waste.
<b>Classification of waste</b>	The classification of waste as inert, non-hazardous or hazardous for the purpose of article 4 of Council Directive (1999/31/EC) on the landfill of waste.
<b>COD</b>	Chemical Oxygen Demand.
<b>Coding of waste</b>	The allocation of a European Waste Catalogue/Hazardous Waste List code and a concise/standardised description of the waste, including information on the source of the waste, e.g. municipal, industrial, construction and demolition etc.
<b>Compliance Point</b>	The point (location, depth) at which a compliance value should be met. Generally it is represented by a borehole or monitoring well from which representative groundwater samples can be obtained.
<b>Compliance Value</b>	The concentration of a substance and associated compliance regime that, when not exceeded at the compliance point, will prevent pollution and/or achieve water quality objectives at the receptor.

<b>Construction and demolition (C&amp;D) waste</b>	Wastes that arise from construction, renovation and demolition activities: Chapter 17 of the EWC or as otherwise may be agreed.
<b>Containment boom</b>	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
<b>Cover Material</b>	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.
<b>CRO Number</b>	Company Register Number.
<b>Daily</b>	During all days of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement on any one day.
<b>Day</b>	Any 24 hour period.
<b>Daytime</b>	0700 hrs to 1900 hrs.
<b>dB(A)</b>	Decibels (A weighted).
<b>Documentation</b>	Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
<b>Drawing</b>	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
<b>Emission limits</b>	Those limits, including concentration limits and deposition rates, established in <i>Schedule B: Emission Limits</i> , of this licence.
<b>EMP</b>	Environmental Management Programme.
<b>Environmental damage</b>	As defined in Directive 2004/35/EC.
<b>EPA</b>	Environmental Protection Agency.
<b>European Waste Catalogue (EWC)</b>	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC and any subsequent amendment published in the Official Journal of the European Community.
<b>Evening Time</b>	1900 hrs to 2300 hrs.
<b>Facility</b>	Any site or premises used for the purpose of the recovery of disposal or waste.
<b>Gas Oil</b>	Gas Oil as defined in Council Directive 1999/32/EC and meeting the requirements of S.I. No. 119 of 2008.

<b>GC/MS</b>	Gas chromatography/mass spectroscopy.
<b>ha</b>	Hectare.
<b>Heavy metals</b>	This term is to be interpreted as set out in "Parameters of Water Quality, Interpretation and Standards" published by the Agency in 2001. ISBN 1-84095-015-3.
<b>Hours of operation</b>	The hours during which the facility is authorised to be operational.
<b>Hours of waste acceptance</b>	The hours during which the facility is authorised to accept waste.
<b>ICP</b>	Inductively coupled plasma spectroscopy.
<b>Incident</b>	The following shall constitute as incident for the purposes of this licence: <ul style="list-style-type: none"><li>(i) an emergency;</li><li>(ii) any emission which does not comply with the requirements of this licence;</li><li>(iii) any exceedance of the daily duty capacity of the waste handling equipment;</li><li>(iv) any trigger level specified in this licence which is attained or exceeded; and,</li><li>(v) any compliance value specified in this licence which is attained or exceeded; and,</li><li>(vi) any indication that environmental pollution has, or may have, taken place.</li></ul>
<b>Industrial waste</b>	As defined in Section 5(1) of the Waste Management Acts 1996 to 2012.
<b>Inert waste</b>	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.
<b>Initial development works</b>	Such works, actions or constructions as may be specified, which for the purposes of environmental protection and safe construction and operation of the facility, have to be carried out in the initial stages of site development, and in any case in advance of the commencement of construction of the landfill cells.
<b>IPPC</b>	Integrated Pollution Prevention & Control.
<b>L<sub>Aeq,T</sub></b>	This is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T).

<b>Landfill Directive</b>	Council Directive 1999/31/EC.
<b>Landfill footprint</b>	The area of the facility where waste is deposited.
<b>L<sub>Aeq</sub>T</b>	The Rated Noise Level, equal to the L <sub>Aeq</sub> during a specified time interval (T), plus specified adjustments for tonal character and/or impulsiveness of the sound.
<b>LEMP</b>	Landfill Environmental Management Plan.
<b>Licensee</b>	<b>Cemex (ROI) Limited, Killeen Road, Dublin 12, CRO Number 79451.</b>
<b>Liquid waste</b>	Any waste in liquid form and containing less than 2% dry matter.
<b>List I</b>	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
<b>List II</b>	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
<b>Local Authority</b>	<b>Kildare County Council.</b>
<b>Maintain</b>	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.
<b>Monthly</b>	A minimum of 12 times per year, at intervals of approximately one month.
<b>Municipal solid waste (MSW)</b>	Household waste as well as commercial and other waste which, because of its nature or composition, is similar to household waste. Excluding municipal sludges and effluents.
<b>New pond</b>	<b>A new on-site pond to be excavated at a location at the western boundary of the facility and denoted as 'new water feature' in the waste licence application documentation.</b>
<b>Night-time</b>	2300 hrs to 0700 hrs.
<b>Noise-sensitive location (NSL)</b>	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
<b>Oil separator</b>	Device installed according to the International Standard I.S. EN 858-2:2003 (Separator system for light liquids, (e.g. oil and petrol) – Part 2: Selection of normal size, installation, operation and maintenance).
<b>PRTR</b>	Pollutant Release and Transfer Register.
<b>Quarterly</b>	At approximately three – monthly intervals.

<b>Residual waste</b>	The fraction of collected waste remaining after a treatment or diversion step, which generally requires further treatment or disposal.
<b>Sample(s)</b>	Unless the context of this licence indicates to the contrary, the term samples shall include measurements taken by electronic instruments.
<b>Sanitary effluent</b>	Wastewater from facility toilet, washroom and canteen facilities.
<b>Source segregated waste</b>	Waste which is separated at source; meaning that the waste is sorted at the point of generation into a recyclable fraction(s) for separate collection (e.g., paper, metal, glass, plastic, bulk dry recyclables, biodegradables, etc.) and a residual fraction. The expression 'separate at source' shall be construed accordingly.
<b>Specified emissions</b>	Those emissions listed in <i>Schedule B: Emission Limits</i> , of this licence.
<b>Standard method</b>	A National, European or internationally recognised procedure (e.g. I.S. EN, ISO, CEN, BS or equivalent); or an in-house documented procedure based on the above references; a procedure as detailed in the current edition of "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by A.P.H.A., A.W.W.A. & W.E.F.), American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or an alternative method as may be agreed by the Agency.
<b>Storm water</b>	Rain water run-off from roof and non-process areas.
<b>The Agency</b>	Environmental Protection Agency.
<b>TOC</b>	Total organic carbon.
<b>Treatment/pre-treatment</b>	In relation to waste, any manual, thermal, physical, chemical or biological processes that change the characteristics of waste in order to reduce its volume or hazardous nature or facilitate its handling, disposal or recovery.
<b>Trigger level</b>	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
<b>Water Services Authority</b>	Kildare County Council.
<b>Weekly</b>	During all weeks of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement in any one week.
<b>Working Face</b>	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.



## ***Decision & Reasons for the Decision***

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any emissions from the activity will comply with and will not contravene any of the requirements of Section 40(4) of the Waste Management Acts 1996 to 2013.

In reaching this decision the Environmental Protection Agency has considered the documentation relating to the current licence, Register Number: **W0254-01**. This includes supporting documentation received from the applicant, all submissions received from other parties, the report of the Licensing Inspector and the Environmental Impact Assessment (EIA) report.

It is considered that the EIA report (as included in the Inspectors Report dated **22 August 2013**) contains a fair and reasonable assessment of the likely significant effects of the licensed activity on the environment. The assessment as reported is adopted as the assessment of the Agency. Having regard to this assessment, it is considered that the proposed activity, if managed, operated and controlled in accordance with the licence will not result in the contravention of any relevant environmental quality standards or cause environmental pollution.

## ***Part I Schedule of Activities Licensed***

In pursuance of the powers conferred on it by the Waste Management Acts 1996 to 2012, the Environmental Protection Agency (the Agency) proposes, under Section 40(1) of the said Acts to grant this Waste Licence to **Cemex (ROI) Limited, Killeen Road, Dublin 12** to carry on the waste activities listed below at **Walshestown, Blackhall, Tipperkevin, Bawnoge, Naas, County Kildare** subject to conditions, with the reasons therefor and the associated Schedules attached thereto set out in the licence. For the purpose of Article 48 of the Waste Management (Licensing) Regulations 2004 (S.I. No 395 of 2004) this facility is classed as an inert waste landfill.

### **Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2013**

<b>Class D 1.</b>	<b>Deposit into or on to land (e.g. including landfill, etc.).</b>
<b>Class D 5.</b>	<b>Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.).</b>
<b>Class D 15</b>	<b>Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of "collection" in section 5(1), pending collection on the site where the waste is produced.</b>

### **Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2013**

<b>Class R 3.</b>	<b>Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals.</b>
<b>Class R 4.</b>	<b>Recycling/reclamation of metals and metal compounds.</b>
<b>Class R 5.</b>	<b>Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.</b>
<b>Class R 13.</b>	<b>Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).</b>

## ***Part II Schedule of Activities Refused***

None of the proposed activities as set out in the licence application have been refused.

## Part III Conditions

### Condition 1. Scope

- 1.1 Waste activities at this facility shall be restricted to those listed and described in *Part I Schedule of Activities Licensed*, and shall be as set out in the licence application or as modified under Condition 1.4 of this licence and subject to the conditions of this licence.
- 1.2 Activities at this facility shall be limited as set out in *Schedule A: Limitations*, of this licence.
- 1.3 For the purposes of this licence, the facility is the area of land outlined in **red** on Drawing No. **WLA-01** of the application received on **23 December 2008**. Any reference in this licence to "facility" shall mean the area thus outlined in **red**. The licensed activities shall be carried on only within the area outlined.
- 1.4 No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in
- (i) a material change or increase in:
- the nature or quantity of any emission;
  - the abatement/treatment or recovery systems;
  - the range of processes to be carried out;
  - the fuels, raw materials, intermediates, products or wastes generated, or
- (ii) any changes in:
- site management, infrastructure or control with adverse environmental significance;
- shall be carried out or commenced without prior notice to, and without the agreement of, the Agency.
- 1.5 **Waste Acceptance Hours and Hours of Operation**
- 1.5.1 **Waste may enter and depart the facility only between the hours of 0800 and 1730 Monday to Friday inclusive and 0800 and 1330 on Saturdays.**
- 1.5.2 **The facility shall be operated only between the hours of 0700 and 1800 Monday to Friday inclusive and 0700 and 1400 on Saturdays, unless otherwise agreed by the Agency.**
- 1.5.3 **No waste shall be accepted nor site operations carried out on Sundays and public holidays unless otherwise agreed by the Agency.**
- 1.6 The facility shall be controlled, operated and maintained, and emissions shall take place as set out in the licence. All programmes required to be carried out under the terms of this licence become part of this licence.
- 1.7 This licence is for purposes of waste licensing under the Waste Management Acts 1996 to 2012 only and nothing in this licence shall be construed as negating the licensee's statutory obligations, or requirements under any other enactments or regulations.

**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 or as otherwise required by the Agency.

- 2.1.2 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 Environmental Management System (EMS)

- 2.2.1 The licensee shall establish and maintain an Environmental Management System (EMS) within six months of the date of grant of this licence. The EMS shall be updated on an annual basis.

- 2.2.2 The EMS shall include, as a minimum, the following elements:

- 2.2.2.1 Management and Reporting Structure.

- 2.2.2.2 Schedule of Environmental Objectives and Targets.

The licensee shall prepare and maintain a Schedule of Environmental Objectives and Targets. The Schedule shall, as a minimum, provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production and the prevention, reduction and minimisation of waste and shall include waste reduction targets. The Schedule shall include time frames for the achievement of set targets and shall address a five-year period as a minimum. The Schedule shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

- 2.2.2.3 Landfill Environmental Management Plan (LEMP)

Within 12 months from the date of grant of this licence, the licensee shall prepare and maintain a LEMP, including a time Schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.2. The LEMP shall have regard to the guidance set out in the EPA Manual on Landfill Operational Practices. The LEMP shall replace any existing EMP and shall include:

- designation of responsibility for targets;
- the means by which they may be achieved; and
- the time within which they may be achieved.

The LEMP shall be reviewed annually and take into account operational experiences at the facility, the stage of development of the facility (active, closure, aftercare), evolving legislative and BAT requirements, as well as any Agency instructions that may issue. Amendments shall be notified to the Agency for agreement as part of the Annual Environmental Report (AER).

A report on the programme, including the success in meeting agreed targets, shall be prepared and submitted to the Agency as part of the AER. Such reports shall be retained on-site for a period of not less than seven years and shall be available for inspection by authorised persons of the Agency.

- 2.2.2.4 Documentation

- (i) The licensee shall establish and maintain an environmental management documentation system which shall be to the satisfaction of the Agency.
- (ii) The licensee shall issue a copy of this licence to all relevant personnel whose duties relate to any condition of this licence.

- 2.2.2.5 Corrective Action

The licensee shall establish procedures to ensure that corrective action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for persons initiating further investigation and

corrective action in the event of a reported non-conformity with this licence shall be defined.

#### 2.2.2.6 Awareness and Training

The licensee shall establish and maintain procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment. Appropriate records of training shall be maintained.

#### 2.2.2.7 Communications Programme

The licensee shall establish and maintain a Public Awareness and 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.

#### 2.2.2.8 Maintenance Programme

The licensee shall establish and maintain a programme for maintenance of all plant and equipment based on the instructions issued by the manufacturer/supplier or installer of the equipment. Appropriate record keeping and diagnostic testing shall support this maintenance programme. The licensee shall clearly allocate responsibility for the planning, management and execution of all aspects of this programme to appropriate personnel (see Condition 2.1 above).

#### 2.2.2.9 Efficient Process Control

The licensee shall establish and maintain a programme to ensure there is adequate control of processes under all modes of operation. The programme shall identify the key indicator parameters for process control performance, as well as identifying methods for measuring and controlling these parameters. Abnormal process operating conditions shall be documented, and analysed to identify any necessary corrective action.

**Reason:** *To make provision for 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. Infrastructure and Operation

- 3.1 The licensee shall establish and maintain, for each component of the facility, all infrastructure referred to in this licence in advance of the commencement of the licensed activities in that component, or as required by the conditions of this licence. Infrastructure specified in the application that relates to the environmental performance of the installation and is not specified in the licence, shall be installed in accordance with the **information** submitted in the application.
- 3.2 The landfill footprint (maximum lateral extent of landfilling) shall be as indicated in Drawing Reference **8.14 (Rev. A)** titled '**Cell layout & formation levels of liner**' of the application.
- 3.3 Wastes shall not be deposited in any new cell **unless agreed by the Agency. Such agreement shall be contingent on, *inter alia*, compliance with Conditions 10.2 and 12.2 of this licence.**
- 3.4 **Phased Construction Plan**
- Three months in advance of the commencement of site development, the licensee shall submit to the Agency for its agreement a construction schedule, sequence and timescale (Construction Plan) incorporating the requirements of this licence and to give effect to the commitments in the application documentation. This Plan shall have regard to the following development phases: (i) Initial Development Works, (ii) Main infrastructure development works (pre

acceptance of waste for disposal), and (iii) Future/planned works (in parallel with waste disposal, e.g. future cell development/phasing). The Construction Plan for cell development shall have regard to the sequencing necessary to provide short-, medium- and long-term screening of the operational areas.

### 3.5 Specified Engineering Works (SEW)

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

3.5.2 All specified engineering works shall be supervised by an appropriately qualified person, and that person, or persons, shall be present at all times during which relevant works are being undertaken.

3.5.3 A Quality Assurance Plan shall be in place for all specified engineering works and shall have regard to the guidance set out in the EPA Manual Landfill Site Design.

3.5.4 Construction Quality Assurance shall be undertaken by an independent third party on behalf of the licensee.

3.5.5 Following the completion of any specified engineering works, the licensee shall complete a Construction Quality Assurance Validation Report. The validation report shall be made available to the Agency on request. The report shall, as appropriate, include the following information:

- (i) A description of the works;
- (ii) As-built drawings of the works;
- (iii) The Quality Assurance Plan (including the Construction Quality Assurance and Manufacturing Quality Assurance Plans);
- (iv) The name(s) of the independent contractor(s)/individual(S) responsible for each aspect of the Construction Quality Assurance and Manufacturing Quality Assurance Plans;
- (v) Records and results of all tests carried out (including failures);
- (vi) Drawings and sections showing the location of all samples and tests carried out;
- (vii) Name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;
- (viii) Records of any problems and the remedial works carried out to resolve those problems;
- (ix) Records of Manufacturing Quality Assurance and Construction Quality Assurance certification; and
- (x) Any other information requested in writing by the Agency.

3.6 The licensee shall have regard to the guidance given in the Environmental Protection Agency Landfill Manuals (Site Design, Operational Practices, Monitoring, Site Investigations, and Restoration and Aftercare), as may be relevant, in the development, operation and closure of the facility.

### 3.7 Landfill Lining

3.7.1 **The landfill liner shall comprise the following: base and side wall mineral layer of a minimum thickness of 1m with a hydraulic conductivity less than or equal to  $1.0 \times 10^{-7}$  m/s.**

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

3.8 Facility Security

3.8.1 Security and stockproof fencing and gates shall be installed and maintained. The base of the fencing shall be set in the ground. Subject to the implementation of the restoration and aftercare plan and to the agreement of the Agency, the requirement for such site security may be removed.

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

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

- (i) A temporary repair shall be made by the end of the working day; and
- (ii) A repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

3.9 Facility Roads and Hardstanding

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

3.9.2 The facility entrance and hardstanding areas shall be appropriately paved and maintained in a fit and clean condition.

3.10 Facility Office

3.10.1 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.

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

3.11 Construction & Demolition Waste Storage Area

In advance of commencement of landfill construction activities involving recovered construction & demolition waste, the licensee shall provide and maintain a construction and demolition waste storage area. This infrastructure shall at a minimum comprise the following:

- (i) An impermeable concrete slab; and
- (ii) Collection and disposal infrastructure for all run-off.

3.12 Waste Inspection and Quarantine Areas

3.12.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility.

3.12.2 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.

3.12.3 Drainage from these areas shall be directed to the leachate management system.

3.13 Weighbridge and Wheel Cleaner

- 3.13.1 The licensee shall provide and maintain a weighbridge and wheel cleaners at the facility.
- 3.13.2 The wheel cleaners shall be used by all vehicles leaving the facility as required to ensure that no process water or waste is carried off-site. All water from the wheel cleaning area shall be directed to the leachate management system.

3.14 Leachate Management Infrastructure

- 3.14.1 Leachate management infrastructure shall be provided and maintained at the facility as described in the Application documentation, or as may be varied by a licence condition.
- 3.14.2 All structures for the storage and/or treatment of leachate shall be fully enclosed except for inlet and outlet piping.

3.15 Groundwater

- 3.15.1 All wells & boreholes shall be adequately sealed to prevent surface contamination and, as may be appropriate, decommissioned according to the UK Environment Agency guidelines "Decommissioning Redundant Boreholes and Wells" (or as otherwise may be agreed by the Agency).
- 3.15.2 Groundwater monitoring wells shall be constructed having regard to the guidance given in the Agency's landfill manual "Landfill Monitoring".

3.16 Soak Pits

- 3.16.1 Soak pits or percolation areas for the treatment of storm water arising on-site shall be adequately sized to allow for storm water and shall satisfy the criteria set out in the UK Building Research Establishment, Soakaway Design, Digest 365 of 2007, or equivalent as agreed by the Agency.
- 3.16.2 The licensee shall, upon commencement of operation of the soak pits on-site, submit an engineer's report to the Agency confirming that the percolation areas are adequately sized and constructed and operating appropriately.

3.17 Facility Notice Board

- 3.17.1 The licensee shall, within one month of the date of grant of this licence, provide an 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. The notice board shall be maintained thereafter.
- 3.17.2 The board shall clearly show:
  - (i) the name and telephone number of the facility;
  - (ii) the normal hours of opening;
  - (iii) the name of the licence holder;
  - (iv) an emergency out of hours contact telephone number;
  - (v) the licence reference number; and
  - (vi) where environmental information relating to the facility can be obtained.
- 3.17.3 A plan of the facility clearly identifying the location of each storage and treatment area shall be displayed as close as is possible to the entrance to the facility. The plan shall be displayed on a durable material such that is legible at all times. The plan shall be replaced as material changes to the facility are made.



- 3.18 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.
- 3.19 In the case of composite sampling of aqueous emissions from the operation of the facility, a separate composite sample or homogeneous sub-sample (of sufficient volume as advised) shall be refrigerated immediately after collection and retained as required for EPA use.
- 3.20 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned.
- 3.21 Tank, Container and Drum Storage Areas
- 3.21.1 All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004).
- 3.21.2 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:
- (i) 110% of the capacity of the largest tank or drum within the bunded area; or
  - (ii) 25% of the total volume of substance that could be stored within the bunded area.
- 3.21.3 All drainage from bunded areas shall be treated as contaminated unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal, unless it can be deemed uncontaminated and does not exceed the trigger levels set for storm water emissions under 6.12.
- 3.21.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.21.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.
- 3.22 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.
- 3.23 Silt Traps and Oil Separators
- The licensee shall install and maintain silt traps and oil separators at the facility:
- (i) Silt traps to ensure that all storm water discharges **from paved/hardstanding areas**, other than from roofs, from the facility pass through a silt trap in advance of discharge;
  - (ii) An oil separator on the storm water discharge from **paved/hardstanding yard areas**. The separator shall be a Class I full retention separator.
- The silt traps and separator shall be in accordance with I.S. EN-858-2: 2003 (separator systems for light liquids).
- 3.24 All pump sumps, storage tanks, lagoons or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach local or remote containment or separators, shall be fitted with high liquid level alarms (or oil detectors as appropriate) within six months from the date of grant of this licence.
- 3.25 The provision of a catchment system to collect any leaks from flanges and valves of all over-ground pipes used to transport material other than water shall be examined. This shall be incorporated into a Schedule of Environmental Objectives and Targets set out in Condition 2 of this licence for the reduction in fugitive emissions.
- 3.26 All wellheads shall be adequately protected to prevent contamination or physical damage.
- 3.27 The licensee shall, within three months of the date of grant of this licence, install in a prominent location on the site a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.

- 3.28 The licensee shall provide and maintain a Wastewater Treatment plant at the facility for the treatment of sanitary effluent arising on-site. Any waste water treatment system and percolation area shall satisfy the criteria set out in the *Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses (p.e ≤ 10)*, published by the Environmental Protection Agency.
- 3.29 Natural gas or biodiesel meeting CEN standard EN14214 shall be used in the boilers on site. In the event of an interruption to the supply of natural gas or biodiesel, an alternative fuel such as gas oil may be used with the prior written agreement of the Agency.
- 3.30 All vehicle and machinery refuelling and maintenance operations shall be carried out in designated areas protected against spillage and run-off.

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

## Condition 4. Interpretation

- 4.1 Emission limit values for emissions to waters in this licence shall be interpreted in the following way:
- 4.1.1 Continuous Monitoring
- (i) No flow value shall exceed the specific limit.
  - (ii) No pH value shall deviate from the specified range.
  - (iii) No temperature value shall exceed the limit value.
- 4.1.2 Composite Sampling
- (i) No pH value shall deviate from the specified range.
  - (ii) For parameters other than pH and flow, eight out of ten consecutive composite results, based on flow proportional composite sampling, shall not exceed the emission limit value. No individual results similarly calculated shall exceed 1.2 times the emission limit value.
- 4.1.3 Discrete Sampling
- For parameters other than pH and temperature, no grab sample value shall exceed 1.2 times the emission limit value.
- 4.2 Where the ability to measure a parameter is affected by mixing before emission, then, with agreement from the Agency, the parameter may be assessed before mixing takes place.
- 4.3 Noise
- Noise from the facility shall not give rise to sound pressure levels ( $L_{Aeq, T}$ ) measured at the NSLs of the facility which exceed the limit value(s).
- 4.4 Dust and Particulate Matter
- Dust and particulate matters from the activity shall not give rise to deposition levels which exceed the limit value(s).

**Reason:** *To clarify the interpretation of limit values fixed under the licence.*

## Condition 5. Emissions

- 5.1 No specified emission from the facility shall exceed the emission limit values set out in *Schedule B: Emission Limits*, of this licence. There shall be no other emissions of environmental significance.
- 5.2 No emissions, including odours, from the activities carried on at the site shall result in an impairment of, or an interference with amenities or the environment beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary.
- 5.3 No substance shall be discharged in a manner, or at a concentration, that, following initial dilution, causes tainting of fish or shellfish.
- 5.4 The licensee shall ensure that all or any of the following:
- Mud
  - Dust
  - Litter

associated with the activity do not result in an impairment of, or an interference with, amenities or the environment at the facility or beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary. Any method used by the licensee to control or prevent any such impairment/interference shall not cause environmental pollution.

- 5.5 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.
- 5.6 There shall be no direct discharges to groundwater with the exception of discharges of storm water to the new pond at SW2 (internal discharge) and via overland flow from restored areas.

**Reason:** *To provide for the protection of the environment by way of control and limitation of emissions.*

## Condition 6. Control and Monitoring

- 6.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring*, of this licence.
- 6.1.1 Analyses shall be undertaken by competent staff in accordance with documented operating procedures.
- 6.1.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.
- 6.1.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.
- 6.1.4 Where any analysis is sub-contracted it shall be to a competent laboratory.
- 6.2 The licensee shall ensure that:
- (i) sampling and analysis for all parameters listed in the Schedules to this licence; and
  - (ii) any reference measurements for the calibration of automated measurement systems;
- shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards that will ensure the provision of data of an equivalent scientific quality shall apply.

- 6.3 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. The use of alternative equipment, other than in emergency situations, shall be as agreed by the Agency.
- 6.4 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission/discharge (or ambient conditions where that is the monitoring objective).
- 6.5 The licensee shall ensure that groundwater monitoring well sampling equipment is available/installed on-site and is fit for purpose at all times. The sampling equipment shall be to Agency specifications.
- 6.6 All treatment/abatement and emission control equipment shall be calibrated and maintained in accordance with the instructions issued by the manufacturer/supplier or installer.
- 6.7 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.
- 6.8 The licensee shall prepare a programme, to the satisfaction of the Agency, for the identification and reduction of fugitive emissions using an appropriate combination of best available techniques. This programme shall be included in the Environmental Management Programme.
- 6.9 The integrity and water tightness of all underground pipes, tanks, bunding structures and containers and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee **upon commissioning**. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 6.10 The drainage system (i.e., gullies, manholes, any visible drainage conduits and such other aspects as may be agreed) and bunds, silt traps and oil separators shall be inspected weekly and desludged as necessary. All sludge and drainage from these operations shall be collected for safe disposal. The drainage system, bunds, silt traps and oil interceptors shall be properly maintained at all times.
- 6.11 An inspection for leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be carried out weekly. A log of such inspections shall be maintained.
- 6.12 Storm Water
- 6.12.1 A visual examination of storm water discharges shall be carried out daily. A log of such inspections shall be maintained.
- 6.12.2 A licensee shall establish suitable trigger levels, in particular for **Suspended Solids (other than at SW1), Total Organic Carbon (TOC) and Ammonia, or other parameters as may be agreed or directed by the Agency**, in storm water discharges to surface water and groundwater, such that storm waters exceeding these levels will be diverted for retention and suitable disposal. The licensee shall have regard to the Environmental Protection Agency "Guidance on the setting of trigger values for storm water discharges to off-site surface waters at EPA IPPC and waste licensed facilities" when establishing the suitable trigger levels.
- 6.12.3 **Notwithstanding the requirements of Condition 6.12.2, only clean storm water that does not exceed the environmental quality standards set out in the European Communities Environmental Objectives (Surface Waters) Regulations 2009, or, as may be relevant, the threshold values set out in the European Communities Environmental Objectives (Groundwater) Regulations 2010 shall be discharged to or be allowed to flow into the new pond.**

**6.12.4** The licensee shall, prior to commencing the discharge of water to the new pond, establish and implement a procedure to ensure that the requirements of Condition 6.12.3 are met on an ongoing basis. The procedure shall incorporate

- monitoring of key parameters and analysis of discharges, and
- mitigation measures to be implemented in the event of failure to meet the quality standards expressed in Condition 6.12.3.

**6.12.5** Failure to meet the quality standards expressed in Condition 6.12.3 shall be regarded as an incident.

**6.13** Groundwater

**6.13.1** Within six months of the date of grant of this licence, and every three years thereafter, the licensee shall carry out a risk screening and where necessary a technical assessment in accordance with the Guidance on the Authorisation of Discharges to Groundwater, published by the Environmental Protection Agency. A report on the outcome of the screening and where relevant the recommendations of the technical assessment in relation to the setting of groundwater compliance points and values, shall be included in the AER. Any actions required to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010, shall be agreed by the Agency and implemented in the first instance before 22<sup>nd</sup> December 2015.

**16.13.2** Within three months of the date of commencement of waste activities, the licensee shall submit to the Agency for its agreement, groundwater monitoring trigger levels in accordance with the requirements of Directive 1999/31/EC that will indicate a significant change in groundwater quality.

**16.13.3** The trigger levels as specified in Condition 16.13.2 for groundwater shall be measured at monitoring boreholes listed in Schedule C.7.2.

**6.14** Noise

The licensee shall carry out a noise survey of the site operations annually, or as requested by the Agency. The survey programme shall be undertaken in accordance with the methodology specified in the 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)' as published by the Agency.

**6.15** Pollutant Release and Transfer Register (PRTR)

The licensee shall prepare and report a PRTR for the site. The substance and/or wastes to be included in the PRTR shall be as agreed by the Agency each year by reference to EC Regulations No. 166/2006 concerning the establishment of the European Pollutant Release and Transfer Register. The PRTR shall be prepared in accordance with any relevant guidelines issued by the Agency and shall be submitted electronically in specified format and as part of the AER.

**6.16** The licensee shall, within six months of the date of grant of this licence, develop and establish a Data Management System for collation, archiving, assessing and graphically presenting the monitoring data generated as a result of this licence.

**6.17** Telemetry

**6.17.1** In advance of the commencement of waste disposal activities a telemetry system shall be installed and maintained at the facility. All facility operations linked to the telemetry system shall also have a manual control which will be reverted to in the event of break in power supply or during maintenance.

**6.17.2** This system shall include:

- (i) Recording of leachate levels in the lined cells and lagoon;
- (ii) Recording of levels in the surface water lagoon and flows to the perimeter streams;

- (iii) Quality of the surface water at the inlet to the surface water lagoons and being discharged to the perimeter streams; and

6.18 Leachate Management

- 6.18.1 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off.
- 6.18.2 Waste shall be stored in designated areas, protected as may be appropriate against spillage and leachate run-off. The waste shall be clearly labelled and appropriately segregated.

6.19 Litter Control

- 6.19.1 The measures and infrastructure as described in the application documentation shall be applied to control litter at the facility.
- 6.19.2 All litter control infrastructure shall be inspected on a daily basis. The licensee shall remedy any defect in litter netting as follows:

- (i) A temporary repair shall be made by the end of the working day; and
- (ii) A repair to the standard of the original netting shall be undertaken within three working days.

- 6.19.3 All loose litter or other waste placed on or in the vicinity of the facility, other than in accordance with the requirements of this licence, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00am of the next working day after such waste is discovered.

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

- 6.20 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.

6.21 Operational Controls

**6.21.1 There shall be no public access to the facility.**

- 6.21.2 Unless otherwise agreed in writing by the Agency, only one working face shall exist at the landfill at any one time for the deposit of waste other than restoration materials.

- 6.21.4 All large hollow objects and other large articles deposited at the facility shall be crushed, broken up, flattened or otherwise treated.

- 6.21.5 Wastes once deposited and covered shall not be excavated, disturbed or otherwise picked over with the exception of works associated with the construction and installation of necessary infrastructure or otherwise only with the prior agreement of the Agency.

- 6.21.6 Scavenging shall not be permitted at the facility.

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

- 6.21.8 No smoking shall be allowed at the facility.

**6.22 Stability Assessment**

The licensee shall carry out a stability assessment of the side slopes of the facility annually. The results of this assessment shall be reported as part of the Annual Environmental Report (AER).

**6.23 Topographical Monitoring**

A topographical survey shall be carried out within twelve months of the date of commencement of waste deposition at the facility and shall be repeated annually thereafter. The survey shall be in accordance with any written instructions issued by the Agency and shall include a measurement of the remaining available void space following the commencement of waste disposal.

**Reason:** *To provide for the protection of the environment by way of treatment and monitoring of emissions.*

## **Condition 7. Resource Use and Energy Efficiency**

- 7.1 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 audit shall be carried out in accordance with the guidance published by the Agency, "Guidance Note on Energy Efficiency Auditing". The energy efficiency audit shall be repeated at intervals as required by the Agency.
- 7.2 The audit shall identify all practicable opportunities for energy use reduction and efficiency and the recommendations of the audit will be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.
- 7.3 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible. Reductions in water usage **and abstraction from onsite wells** shall be incorporated into Schedule of Environmental Objectives and Targets.
- 7.4 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets.

**Reason:** *To provide for the efficient use of resources and energy in all site operations.*

## **Condition 8. Materials Handling**

- 8.1 Disposal or recovery of waste on-site shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.
- 8.2 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor. The waste shall be transported from the site of the activity to the site of recovery/disposal only in a manner that will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.
- 8.3 The licensee shall ensure that, in advance of transfer to another person, waste shall be classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.

- 8.4 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off.
- 8.5 Waste shall be stored in designated areas, protected as may be appropriate against spillage and leachate run-off. The waste shall be clearly labelled and appropriately segregated.
- 8.6 No waste classified as green list waste in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended) shall be consigned for recovery without the agreement of the Agency.
- 8.7 Waste for disposal/recovery off-site shall be analysed in accordance with *Schedule C: Control & Monitoring*, of this licence.
- 8.8 Unless approved in writing, in advance, by the Agency the licensee is prohibited from mixing a hazardous waste of one category with a hazardous waste of another category or with any other non-hazardous waste.
- 8.9 The licensee shall neither import waste into the State nor export waste out of the State except in accordance with the relevant provisions of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14th June 2006 on shipments of waste and associated national regulations.
- 8.10 Waste Acceptance Procedures
- 8.10.1 Waste shall only be accepted at the facility from local authority waste collection or transport vehicles or holders of valid waste collection permits, unless exempted or excluded, issued under the Waste Management (Collection Permit) Regulations 2007, or as may be amended.
- 8.10.2 Prior to commencement of waste acceptance at the facility, the licensee shall submit to the Agency for its agreement updated written procedures for the acceptance and handling of all wastes. These procedures shall include details of the treatment of all waste to be carried out in advance of acceptance at the landfill facility and shall also include methods for the characterisation, classification and coding of waste. The procedures for **landfilling** shall have regard to the EU Decision (2003/33/EC) on establishing the criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC on the landfill of waste.
- 8.10.3 The waste acceptance procedures established under this condition shall provide:
- For the checking of waste documentation on receipt of waste in the waste reception area;
  - For non pre-cleared customers, for the visual inspection and testing of waste in the waste inspection area pending acceptance/rejection;
  - For the visual inspection of waste when deposited at the working face of the **landfill**;
  - For the keeping for two months of any samples associated with on-site verification sampling of waste accepted at the **landfill** facility.
- 8.10.4 The procedures established under Condition 8.10.2 shall ensure that waste is accepted at the facility only from known customers or new customers subject to initial waste profiling and waste characterisation off-site. The written records of this off-site waste profiling and characterisation shall be retained by the licensee for all active customers and for a two year period following termination of licensee/customer agreements.
- 8.10.5 Waste arriving at the facility shall have its documentation checked at the point of entry to the facility and subject to this verification, weighed, recorded and directed to the working face/quarantine area/**inert waste processing area** as appropriate.
- 8.10.6 All wastes shall be checked at the working face of the **landfill**. Any wastes deemed unsuitable for acceptance at the facility and/or in contravention of this licence shall be removed from the facility at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area. Waste shall be stored under



appropriate conditions in the quarantine area to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition.

**8.10.7 Waste Treatment**

Only waste that has been subject to treatment shall be accepted for disposal at the landfill facility.

(i) Treatment shall reflect published EPA technical guidance as set out in *Municipal Solid Waste – Pre-treatment and Residuals Management*, EPA, 2009.

(ii) With the agreement of the Agency, this condition shall not apply to:

- inert wastes for which treatment is not technically feasible;
- other waste for which such treatment does not contribute to the objectives of the Landfill Directive as set out in Article 1 of the Directive by reducing the quantity of the waste or the hazards to human health or the environment.

**8.10.8** The dilution or mixture of waste solely in order to fulfil relevant waste acceptance criteria established under Condition 8.10.2, is prohibited.

**8.10.9** The licensee shall, in writing, notify the Agency without delay of any waste received at the facility that does not meet the waste acceptance criteria.

**8.10.10** The licensee shall provide a written acknowledgement (to carrier/waste contractor) of receipt of each delivery of waste to the facility (for disposal or recovery at the landfill).

**8.10.11** Whole used tyres (other than bicycle tyres and tyres with an outside diameter greater than 1400mm) and shredded tyres shall not be disposed of at the facility.

**8.10.12** No hazardous wastes or liquid wastes shall be **accepted** at the facility.

**8.10.13** No waste which in the conditions of the landfill, is explosive, corrosive, oxidising, highly flammable or flammable as defined in Directive 2008/98/EC shall be accepted at the landfill.

**8.10.14** The licensee shall ensure that any waste acceptance testing required by this licence shall be carried out by competent laboratories in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards or alternative methods shall apply with the agreement of the Agency.

**8.11** No waste shall be burned at the facility.

**8.12 No waste other than**

- **uncontaminated soil and stone or other natural materials classified as inert waste, or**
- **other inert waste that is certified as suitable for the purpose intended, or, where there is one available, meets an appropriate engineering standard,**

**shall be deposited for engineering purposes beneath the landfill liner. The use of such wastes shall be notified in accordance with Condition 3.5.**

**8.13** No biological treatment of waste shall take place at the facility.

**8.14** All waste deposited at the facility prior to grant of this licence shall be excavated prior to construction of the liner. The excavated waste shall be treated prior to any further use or disposal at the facility or alternatively shall be dispatched directly to an appropriately authorised facility.

**Reason: To provide for the appropriate handling of material and the protection of the environment.**

## Condition 9. Accident Prevention and Emergency Response

- 9.1 The licensee shall, **in advance of commencement of the activity**, ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.2 The licensee shall, **in advance of commencement of the activity**, ensure that a documented Emergency Response Procedure is in place, that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.3 Incidents
- 9.3.1 In the event of an incident the licensee shall immediately:
- (i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
  - (ii) isolate the source of any such emission;
  - (iii) evaluate the environmental pollution, if any, caused by the incident;
  - (iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
  - (v) identify the date, time and place of the incident;
  - (vi) notify the Agency and other relevant authorities.
- 9.3.2 The licensee shall provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency, to:
- (i) identify and put in place measures to avoid recurrence of the incident; and
  - (ii) identify and put in place any other appropriate remedial actions.

**Reason:** *To provide for the protection of the environment.*

## Condition 10. Closure, Restoration and Aftercare Management

- 10.1 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery any soil, subsoil, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.
- 10.2 Closure, Restoration and Aftercare Management Plan (CRAMP)
- 10.2.1 The licensee shall **maintain** a fully detailed and costed plan for the closure, restoration and long-term aftercare of the site or part thereof. This plan shall have regard to the commitments given in the application documentation for Licence Register W0254-01 (as may be varied herein, or otherwise amended as notified in the AER and approved in writing by the Agency). **The revised CRAMP shall be submitted for agreement by the Agency prior to commencement of waste acceptance at the facility.**

- 10.2.2 The plan shall be reviewed annually and proposed amendments thereto notified to the Agency for agreement as part of the AER. No amendments may be implemented without the prior agreement of the Agency.
- 10.2.3 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision when implementing Condition 10.2.1 above.
- 10.3 The CRAMP shall include, as a minimum, the following:
- (i) a scope statement for the plan;
  - (ii) the criteria, including those specified in this licence, which define the successful closure and restoration of the facility or part thereof, and which ensure minimum impact on the environment;
  - (iii) a programme to achieve the stated criteria;
  - (iv) where relevant, a test programme to demonstrate the successful implementation of the plan;
  - (v) details of the long-term supervision, monitoring, control, maintenance and reporting requirements for the restored facility; and
  - (vi) details of the costings for the plan and the financial provisions to underwrite those costs.
- 10.4 A final validation report to include a certificate of completion for the CRAMP, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.
- 10.5 The licensee shall restore the facility on a phased basis. Unless otherwise agreed, filled cells shall be permanently capped within 24 months of the cells having been filled to the required level.
- 10.6 Finished Levels/Profile
- 10.6.1 Landscaping of the facility shall be as described in the application documentation.
  - 10.6.4 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.
  - 10.6.5 Final contours and landscaping should be such that the finished slopes of the facility are structurally stable, resistant to erosion, and protective of pollution control and monitoring infrastructure.
- 10.7 Final Capping
- Unless otherwise agreed by the Agency, the final capping shall consist of the following:
- (i) Top soil (150–300 mm);
  - (ii) Subsoils, such that total thickness of top soil and subsoils is at least 1m.
- 10.8 No material or object that is incompatible with the proposed restoration of the facility shall be present within 1m of the final soil surface levels.
- 10.9 All soils shall be stored to preserve the soil structure for future use.

**Reason:** *To make provision for the proper closure of the activity ensuring protection of the environment.*

## Condition 11. Notification, Records and Reports

- 11.1. The licensee shall notify the Agency, in writing, one month in advance of the intended date of commencement of acceptance of waste for Scheduled Disposal/Recovery activities at the facility (waste used in the facility construction excepted).
- 11.2. The licence shall notify the Agency by both telephone and facsimile, if available, to the Agency's headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:
- (i) any release of environmental significance to atmosphere from any potential emissions point including bypasses;
  - (ii) any emission that does not comply with the requirements of this licence;
  - (iii) any malfunction or breakdown of key control equipment or monitoring equipment set out in *Schedule C: Control and Monitoring*, of this licence which is likely to lead to loss of control of the abatement system; and
  - (iv) any incident with the potential for environmental contamination of surface water or groundwater, or posing an environment threat to air or land, or requiring an emergency response by the Local Authority.

The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions.

- 11.3. In the case of any incident relating to discharges to water, the licensee shall notify the Local and Water Services Authority and Inland Fisheries Ireland as soon as practicable after such an incident.
- 11.4. The licensee shall make a record of any incident. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident. The record shall include all corrective actions taken to manage the incident, minimise wastes generated and the effect on the environment, and avoid recurrence. The licensee shall, as soon as practicable following incident notification, submit to the Agency the incident record.
- 11.5. The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.
- 11.6. The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility.
- 11.7. The licensee shall as a minimum keep the following documents at the site:
- (i) the licences relating to the facility;
  - (ii) the current EMS for the facility;
  - (iii) the previous year's AER for the facility;
  - (iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility;
  - (v) relevant correspondence with the Agency;
  - (vi) up-to-date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points;
  - (vii) up-to-date Standard Operational Procedures for all processes, plant and equipment necessary to give effect to this licence or otherwise to ensure that standard operation of such processes, plant or equipment does not result in unauthorised emissions to the environment;
  - (viii) the current Landfill Environmental Management Plan (LEMP); and
  - (ix) any elements of the licence application or EIS documentation referenced in this licence.

This documentation shall be available to the Agency for inspection at all reasonable times.

- 11.8 The licensee shall submit to the Agency, by the 31<sup>st</sup> March of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule D: Annual Environmental Report*, of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.
- 11.9 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall be maintained on a monthly basis and shall as a minimum contain details of the following:
- (i) the tonnages and EWC Code for the waste materials imported and/or sent off-site for disposal/recovery;
  - (ii) the names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number);
  - (iii) details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its permit/licence details and issuing authority, if required;
  - (iv) written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site;
  - (v) details of all waste consigned abroad for Recovery and classified as 'Green' in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended). The rationale for the classification must form part of the record;
  - (vi) details of any rejected consignments;
  - (vii) details of any approved waste mixing;
  - (viii) the results of any waste analyses required under *Schedule C: Control & Monitoring*, of this licence; and
  - (ix) the tonnage and EWC Code for the waste materials recovered/disposed on-site.
- 11.10 The licensee shall maintain a written record for each load of waste arriving at the facility. The licensee shall record the following:
- (a) the date and time;
  - (b) the name of the carrier (including if appropriate, the waste carrier registration details);
  - (c) the vehicle registration number;
  - (d) the trailer, skip or other container unique identification number (where relevant);
  - (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/HWL codes;
  - (h) the quantity of the waste, recorded in tonnes;
  - (i) details of the treatment(s) to which the waste has been subjected;
  - (j) the classification and coding of the waste, including whether MSW or otherwise;
  - (k) whether the waste is for disposal or recovery and if recovery for what purpose;
  - (l) the name of the person checking the load; and where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed.
- 11.11 Waste Recovery Reports
- The licensee shall as part of the Annual Environmental Report for the site submit a report on the contribution by this facility to the achievement of the waste recovery objectives stated in Condition 2.2.2.2 and as otherwise may be stated in National and European Union waste policies and shall, as a minimum, include tonnages of the following:

- (i) the recovery of construction and demolition waste;
  - (ii) the recovery of other waste in landfill operations including restoration.
- 11.12 The licensee shall submit report(s) as required by the conditions of this licence to the Agency's Headquarters in Wexford, or to such other Agency office as may be specified by the Agency.
- 11.13 All reports shall be certified accurate and representative by the facility manager or a nominated, suitably qualified and experienced deputy.

**Reason:** *To provide for the collection and reporting of adequate information on the activity.*

## Condition 12. Financial Charges and Provisions

### 12.1 Agency Charges

- 12.1.1 The licensee shall pay to the Agency an annual contribution of €10,842, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Waste Management Acts 1996 to 2013. The first payment shall be a pro-rata amount for the period from the date of grant of this licence to the 31<sup>st</sup> day of December, and shall be paid to the Agency within one month from the date of grant of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Waste Management Acts 1996 to 2013, and all such payments shall be made within one month of the date upon which demanded by the Agency.
- 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 defray its costs in regard to items not covered by the said annual contribution.

### 12.2 Environmental Liabilities

- 12.2.1 The licensee shall as part of the AER, provide an annual statement as to the measures taken or adopted at the site in relation to the prevention of environmental damage, and the financial provisions in place in relation to the underwriting of costs for remedial actions following anticipated events (**including closure**) or accidents/incidents, as may be associated with the carrying on of the activity.
- 12.2.2 The licensee shall arrange for the **revision**, by an independent and appropriate qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) which addresses the liabilities from past and present activities. The assessment shall include those liabilities and costs identified in Condition 10 for execution of the CRAMP. A report on this assessment shall be **agreed by the Agency prior to commencement of waste acceptance at the facility**. The ELRA shall be reviewed **and updated** as necessary to reflect any significant change on site, and in any case every three years following initial agreement. Review results are to be notified as part of the AER.
- 12.2.3 **The licensee shall, prior to commencement of waste acceptance at the facility and to the satisfaction of the Agency, make financial provision to cover any liabilities associated with the operation (including closure, restoration and aftercare).**

- 12.2.4 As part of the measures identified in Condition 12.2.1, the licensee shall, to the satisfaction of the Agency, **maintain** financial provision to cover any liabilities associated with the operation (including closure, restoration and aftercare). The amount of indemnity held shall be reviewed and revised as necessary, but at least annually. Proof of renewal or revision of such financial indemnity shall be included in the annual 'Statement of Measures' report identified in Condition 12.2.1.
- 12.2.5 The licensee shall revise the cost of closure, restoration and aftercare annually and any adjustments shall be reflected in the financial provision made under Condition 12.2.4.
- 12.2.6 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision when implementing Conditions 12.2.2, **12.2.3** and 12.2.4 above.
- 12.2.7 Unless otherwise agreed, any revision to that part of the indemnity dealing with closure, restoration and aftercare liabilities shall be computed using the following formula:

$$\text{Cost} = (\text{ECOST} \times \text{WPI}) + \text{CiCC}$$

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 Cost of landfill of waste

In accordance with the provisions of Section 53A of the Waste Management Acts 1996 to 2013, the licensee shall ensure the costs involved in the setting up and operation of the facility, as well as the costs of closure, restoration and after-care (including cost of provision of financial security) for a period of at least 30 years (post closure) shall be covered by the price to be charged for the disposal of waste at the facility. The statement required under Section 53A(5) of said Acts is to be included as part of the AER.

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

## SCHEDULE A: Limitations

### A.1 Waste Processes

The following waste related processes are authorised:

- i. Non-hazardous C&D waste recovery (incl. crushing, screening, sorting, blending, use);
- ii. Landfilling of inert waste
- iii. Use of inert waste in landfill operation
- iv. Storage of waste

No additions to these processes are permitted unless agreed in advance with the Agency.



### A.2 Waste Acceptance

**Table A.2.1 Waste Categories and Annual Permitted Intake**

WASTE TYPE <sup>Note 1</sup>		MAXIMUM (tonnes per annum)
<b>For deposit in the landfill or treatment at the inert waste processing area</b>		
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07*	<b>330,000</b>
01 04 09	Waste sand and clays	
01 04 12	Tailings and other wastes from washing and cleaning of materials other than those mentioned in 01 04 07 and 01 04 11	
17 01 01	Concrete	
17 01 02	Bricks	
17 01 03	Tiles and ceramics	
17 01 07	Mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	
17 05 04	Soil and stones other than those mentioned in 17 05 03	
17 05 06	Dredging spoil other than those mentioned in 17 05 05	
20 02 02	Soil and stones	
<b>Solely for treatment at the inert waste processing area</b>		
17 09 04 <sup>Note 2</sup>	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	

**Note 1:** Any proposals to accept other compatible non-hazardous waste streams must be agreed in advance by the Agency and the total amount of waste must be within the amount specified.

**Note 2:** This waste shall not be deposited in the landfill.





**Table A.2.2 Total Permitted Landfill Capacity**

Total quantity of waste permitted to be placed at the landfill facility (over authorised life of facility)	2,400,000 m <sup>3</sup>
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**SCHEDULE B: Emission Limits**

**B.1 Emissions to Air**

There shall be no emissions to air of environmental significance.



**B.2 Emissions to Water**

**B.2.1 Process Emissions**

There shall be no process emissions to water.



**B.2.2 Storm Water Emissions**

Emission Point Reference No: SW1  
 Name of Receiving Waters: Tributary of Morell River  
 Location: E293263 N215872 (outlet from settling Pond C as per Drawing Number WLA-18 received on 1 February 2012)

Parameter	Emission Limit Value (mg/l)
Suspended Solids	25



**B.3 Emissions to Sewer**

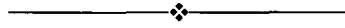
There shall be no emissions to sewer.



**B.4 Noise Emissions**

Daytime dB L <sub>Af,T</sub> (30 minutes)	Evening-time dB L <sub>Af,T</sub> (30 minutes)	Night-time dB L <sub>Aeq,T</sub> (15-30 minutes)
55 <sup>Note 1</sup>	50 <sup>Note 1</sup>	45 <sup>Note 1</sup>

**Note 1:** There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise-sensitive location.



**B.5 Dust Deposition Limits:**

**Locations:** Measured at the monitoring points **D1, D2, D3, D4, D5 and D6** indicated on Drawing No. **A.5 dated November 2008** of the application (or as may be amended under Condition 6.7).

Level (mg/m <sup>2</sup> /day) <sup>Note 1</sup>
350

**Note 1:** 30 day composite sample with the results expressed as mg/m<sup>2</sup>/day.



**SCHEDULE C: Control & Monitoring**

***C.1.1 Control of Emissions to Air***

There shall be no emissions to air of environmental significance.



***C.1.2 Monitoring of Emissions to Air***

There shall be no emissions to air of environmental significance.



***C.2.1 Control of Emissions to Water***

There shall be no process emissions to water.



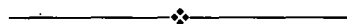
***C.2.2 Monitoring of Emissions to Water***

There shall be no process emissions to water.



***C.3.1 Control of Emissions to Sewer***

There shall be no process effluent emissions to sewer.



***C.3.2 Monitoring of Emissions to Sewer***

There shall be no process effluent emissions to Sewer.



**C.4 Monitoring of Storm Water discharges**

- Monitoring location Reference No:**
- SW1 (outlet from Pond C)
  - SW2 (internal discharge into the new pond)
  - Discharge from silt trap/oil separator to percolation area

Parameter <sup>Note 1</sup>	Monitoring Frequency <sup>Note 4, 5</sup>	Analysis Method/Technique
Visual Inspection	Daily	Sample and examine for colour and odour.
Ammonia <sup>Note 2</sup>	Monthly	Standard method
Total Organic Carbon (TOC) <sup>Note 2</sup>	Monthly	Standard method
Suspended Solids <sup>Note 2</sup>	Monthly	Standard method
Mineral Oils	Quarterly	Standard method
Dissolved metals	Annually	Standard method
Hazardous substances	Annually	Standard method
List I/II Organic Substances <sup>Note 3</sup>	Annually <sup>Note 5</sup>	Standard method

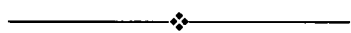
**Note 1:** All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.

**Note 2:** Background, warning and trigger levels to be agreed as per Condition 6.12.2.

**Note 3:** 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 I.

**Note 4:** Apart from the visual inspection, the monitoring frequency for each parameter can be reduced with the prior agreement of the Agency.

**Note 5:** The monitoring frequency shall be monthly for all parameters other than 'visual inspection' at SW2 during the pumping and discharge of the contents of Ponds A1, A2 and A3 via SW2 to the new pond.



**C.5 Waste Monitoring**

Waste Class	Frequency	Parameter	Method
Other <sup>Note 1</sup>			

**Note 1:** Analytical requirements to be determined on a case by case basis.



**C.6 Noise Monitoring**

Location	Measurement	Frequency
N1, N2, N3, N4, N5 & N6 (as per drawing No. 15.1 'Noise monitoring locations' or as may be otherwise agreed/directed, or as may be amended under Condition 6.7)	Daytime dB L <sub>Ar, T</sub> (30 minutes)	Quarterly
	Evening dB L <sub>Ar, T</sub> (30 minutes)	
	Night-time dB L <sub>Aeq, T</sub> (15 – 30 minutes)	
Period	Minimum Survey Duration	
Daytime	4 hour survey with a minimum of 3 sampling periods at each noise monitoring location. <sup>Note 2</sup>	
Evening-time	2 hours survey with a minimum of 1 sampling period at each noise monitoring location.	
Night-time <sup>Note 1</sup>	3 hour survey with a minimum of 2 sampling periods at each noise monitoring location.	

**Note 1:** Night-time measurements should be made between 2300hrs and 0400hrs, Sunday to Thursday, with 2300hrs being the preferred start time.

**Note 2:** Sampling period is to be the time period T stated within the relevant licence. Typically this will be either 15 minutes or 30 minutes in duration. This applies to day, evening and night time periods.



**C.7 Ambient Monitoring**

**C.7.1 Dust Monitoring**

**Location:** D1, D2, D3, D4, D5 and D6 indicated on Drawing No. A.5 dated November 2008 of the application (or as may be amended under Condition 6.8).

Parameter	Monitoring Frequency	Analysis Method/Technique
Dust deposition	Monthly	Bergerhoff



**C.7.2 Groundwater Monitoring**

**Monitoring Point Reference No.:** BH1-07, BH2-07, BH3-07, BH4-07, BH7-07, BH8-07, BH9-09, BH10-09, BH11-09, BH12-09, BHA, BHLawlor, BHBally, PN-01

**Location:** Locations of monitoring points as shown on Drawing Number WLA-16 Revision D received on 1 February 2012, unless otherwise agreed by the Agency.

Parameter	Monitoring Frequency	Analysis Method/Techniques
Visual inspection/odour <sup>Note 1</sup>	Monthly	Standard Method
Groundwater level (wells)	Monthly	Standard Method
Dissolved oxygen	Monthly	Standard Method
Electrical conductivity	Monthly	Standard Method
pH	Monthly	pH electrode/meter
Total Ammonia	Monthly	Standard Method
Chloride	Monthly	Standard Method
Sulphate (SO <sub>4</sub> )	Monthly	Standard Method
COD	Biannually	Standard Method
Nitrate	Biannually	Standard Method
Total Nitrogen	Biannually	Standard Method
Conductivity	Biannually	Standard Method
Fluoride	Biannually	Standard Method
Hazardous Compounds <sup>Note 2</sup>	Biannually	Standard Method
Metals/non-metals <sup>Note 3</sup>	Annually	Standard Method
Mercury	Annually	Standard Method
Nitrate	Annually	Standard Method
Total P/orthophosphate	Annually	Standard Method
Faecal coliforms	Annually	Standard Method
Total coliforms	Annually	Standard Method

**Note 1:** Where there is evident gross contamination, additional samples should be analysed and the full suite of parameters shown tested.

**Note 2:** The relevant hazardous substances for monitoring in groundwater shall be identified by the licensee by undertaking a risk based assessment. The Licensee shall have regard to the 'Classification of Hazardous and Non-hazardous Substances in Groundwater' issued by the Agency. Monitoring for the identified hazardous substances shall be carried out at least annually, unless a case for less frequent monitoring is agreed by the Agency

**Note 3:** Metals and elements to be analysed by AA/ICP should include as a minimum: boron, cadmium, calcium, chromium (total), copper, iron, lead, magnesium, manganese, nickel, potassium, sodium and zinc.

***C.8 Control of Emissions to Groundwater***

There shall be no emissions to groundwater of environmental significance.

**There are no additional controls other than expressed in conditions of this licence.**



## **SCHEDULE D: Specified Engineering Works**

<b>Specified Engineering Works</b>
Development of the facility including preparatory works and lining. <b>Use of waste for engineering purposes beneath the landfill liner.</b> Final capping. Installation of Leachate Management Infrastructure. Installation of Groundwater Control Infrastructure. Installation of Surface/Storm Water Management Infrastructure. Any other works notified in writing by the Agency.





**SCHEDULE E: Annual Environmental Report****Annual Environmental Report Content** <sup>Note 1</sup>

Emissions from the facility (to surface water, ground; incl. leachate and noise).

Waste Management Records for the year to include:

- Quantity of waste accepted at the facility;
- Quantity of waste disposed of in the landfill (for year and in total);
- Quantity of recovered waste used in the development/operation of the landfill (for year and in total)
- Quantity of waste removed off-site for recovery and disposal;
- Statement on the achievement of the waste acceptance and treatment obligations

Total consented landfill void (m<sup>3</sup>) (based on design/licence limit/other restrictions).

Total consented landfill void (m<sup>3</sup>) developed.

Total consented landfill void (m<sup>3</sup>) used.

Average compaction/fill densities achieved.

Topographical Survey (including comparison with previous years survey results)

Updates to Landfill Environmental Management Plan (LEMP).

Waste Recovery Report.

Statement of compliance of facility with any updates of the relevant Waste Management Plan

Complaints summary.

Reported incidents summary.

Schedule of environmental objectives and targets.

Environmental management programme – report for previous year.

Environmental management programme – proposal for current year.

Pollutant release and transfer register – report for previous year.

Pollutant release and transfer register – proposal for current year.

Waste analysis.

Meteorological data summary.

Ambient monitoring summary (surface water, groundwater, dust, noise).

Current monitoring location reference drawing.

Energy efficiency audit report summary.

Resource consumption summary.

Report on progress made and proposals being developed to minimise generation of leachate for disposal.

Development/Infrastructural works summary (completed in previous year or prepared for current year).

Report on management and staffing structure of the facility.

Report on the programme for public information.

Reports on financial provision made under this licence.

Review of environmental liabilities.

Any amendments to the CRAMP.

Statement on the costs of landfill (including Landfill Levy).

Any other items specified by the Agency.

**Note 1:** Content may be revised subject to the agreement of the Agency.

Sign off for Proposed Determinations/Decisions

**Signed on behalf of the said Agency** \_\_\_\_\_  
On the xx day of xxxxx, 200X      xxxxxxxxxxxx      **Authorised Person**

Sign Off for Final Licences/Decisions  
**Sealed by the seal of the Agency on this the \*\* day of \*\* 201\*.**

**PRESENT when the seal of the Agency  
Was affixed hereto:**

\_\_\_\_\_  
**XXXX Director/Authorised Person**