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**WASTE LICENCE**  
**Recommended Decision**

<b>Licence Register Number:</b>	<b>W0201-02</b>
<b>Applicant:</b>	Bord na Móna Plc, Main Street, Newbridge, County Kildare.
<b>Location of Facility:</b>	Drehid Waste Management Facility, Parsonstown, Loughnacush, Kilkeaskin, Drummond, Timahoe West, Coolcarrigan, Killinagh Lower & Killinagh Upper, County Kildare.

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<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>	0800 hrs to 2200 hrs.
<b>dB(A)</b>	Decibels (A weighted).
<b>DO</b>	Dissolved oxygen.
<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>EMP</b>	Environmental Management Programme.
<b>Emission limits</b>	Those limits, including concentration limits and deposition rates, established in <i>Schedule B: Emission Limits</i> of this licence.
<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>Facility</b>	Any site or premises used for the purpose of the recovery or disposal of waste.
<b>Fortnightly</b>	A minimum of 24 times per year, at approximately two week intervals.
<b>GC/MS</b>	Gas chromatography/mass spectroscopy.
<b>Green Waste</b>	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
<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>List I</b>	As listed in the EC Directives 76/464/EEC and 80/68/EEC and amendments.
<b>List II</b>	As listed in the EC Directives 76/464/EEC and 80/68/EEC and amendments
<b>Local Authority</b>	Kildare County Council.
<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>Mass flow limit</b>	An emission limit value expressed as the maximum mass of a substance that can be emitted per unit time.
<b>Mass flow threshold</b>	A mass flow rate above which a concentration limit applies.
<b>Monthly</b>	A minimum of 12 times per year, at intervals of approximately one month.
<b>Night-time</b>	2200 hrs to 0800 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>	All or part of a period of three consecutive months beginning on the first day of January, April, July or October.
<b>Regional Fisheries Board</b>	Southern Regional Fisheries Board.
<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>Sludge</b>	The accumulation of solids resulting from industrial processes, or from biological, chemical coagulation, flocculation and/or sedimentation processes associated with water or wastewater treatment, with >2% dry matter.
<b>SOP</b>	Standard operating procedure.
<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

## ***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 2008.

In reaching this decision the Environmental Protection Agency has considered the application and supporting documentation received from the applicant and the report of its inspector.

### ***Part I Scheduled of Activities Licensed***

In pursuance of the powers conferred on it by the Waste Management Acts 1996 to 2008, the Environmental Protection Agency (the Agency), under Section 46(8) of the said Acts to grants this revised Waste Licence to Bord na Móna Plc to carry on the waste activities listed below at Drehid Waste Management Facility, Co Kildare subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence. For the purposes of Article 48 of the Waste Management Licensing Regulations, 2004 (S.I. No. 395 of 2004) this facility is classed as a non-hazardous waste landfill.

#### ***Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2008***

<b>Class 1.</b>	<b>Deposit on, in or under land (including landfill).</b>
<b>Class 4.</b>	<b>Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.</b>
<b>Class 5.</b>	<b>Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment. [Principal Class]</b>
<b>Class 6.</b>	<b>Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 10 of this Schedule.</b>
<b>Class 13.</b>	<b>Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.</b>

#### ***Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2008***

<b>Class 2.</b>	<b>Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).</b>
<b>Class 11.</b>	<b>Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.</b>
<b>Class 13.</b>	<b>Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.</b>

## Condition 2. Management of the Facility

### 2.1 Facility Management

- 2.1.1 The licensee shall employ a suitable 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. In addition, the facility manager and his/her deputy shall successfully complete FAS waste management training programme or equivalent agreed by the Agency.

### 2.2 Environmental Management System (EMS)

- 2.2.1 The licensee shall maintain an Environmental Management System (EMS) on-site. 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 (including emissions prevention/reduction), and the beneficial re-use (recovery) of waste in landfill engineering operations. 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).

2.2.2.2 Environmental Management Programme (EMP)

The licensee shall, maintain an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.2. Once agreed the EMP shall be maintained by the licensee. It shall include:

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

The EMP shall be reviewed annually and amendments thereto 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.

### 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 facility and is not specified in the licence, shall be installed in accordance with the schedule submitted in the application.

#### 3.2 Facility Notice Board

3.2.1 The licensee shall, within four months of the date of grant of this licence, provide a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions on the board shall be 1200 mm by 750 mm. The notice board shall be maintained thereafter.

3.2.2 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.

3.2.3 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.

3.3 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.

3.4 Wastes shall not be deposited in any new cell without the prior agreement of the Agency.

3.5 The landfill footprint (maximum lateral extent of landfilling) shall be as indicated in Drawing Reference No: 3369-2606 of the application.

#### 3.6 Phased Construction Plan

Three months prior to the commencement of any significant site development works, 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),
- (iii) Future/planned works (in parallel with waste disposal, e.g., future cell development/phasing), and
- (iv) Any amendments to the on-site monitoring infrastructure, e.g., groundwater monitoring well locations, etc.
- (v) 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.

- (iv) The lining system on the base of the facility shall be laid to a minimum slope of 1:50, and
- (v) The side walls shall be designed and constructed to achieve an equivalent protection.

### 3.13 Tank, Container and Drum Storage Areas

- 3.13.1 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).
- 3.13.2 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.
- 3.13.3 All drainage from bunded areas shall be treated as hazardous waste unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal.
- 3.13.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.13.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.

3.14 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.

### 3.15 Waste handling, ventilation and processing plant

- 3.15.1 Items of plant deemed critical to the efficient and adequate processing of waste at the facility (including inter alia waste loading vehicles and ejector trailers) shall be provided on the following basis:-
  - (i) 100% duty capacity;
  - (ii) 20% standby capacity available on a routine basis; and
  - (iii) Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.
- 3.15.2 The licensee shall maintain on site a record detailing the duty and standby capacity in tonnes per day, of all waste handling and processing equipment to be used at the facility. These capacities shall be based on the licensed waste intake, as per *Schedule A: Limitations*, of this licence.
- 3.15.3 The quantity of waste to be accepted at the facility on a daily basis shall not exceed the duty capacity of the equipment at the facility. Any exceedance of this intake shall be treated as an incident.

### 3.16 Compost facility

- 3.16.1 The licensee shall, prior to the acceptance of waste for composting, provide and maintain enclosed biodegradable waste composting facilities and associated infrastructure as specified in the licence, or as otherwise may be agreed by the Agency.
- 3.16.2 All wastewater from composting operations shall be collected and reused or discharged to the landfill leachate system.

### 3.17 Silt Traps and Oil Separators

- 3.17.1 The licensee shall maintain silt traps and oil separators at the facility. All storm water discharges from the facility hardstanding and service areas shall pass through a silt trap and oil separator prior to discharge. All storm water discharges from the borrow pits shall pass through a silt trap prior to discharge. The separator shall be a Class I full retention



### 3.24 Landfill Gas Management

- 3.24.1 Landfill Gas management infrastructure shall be provided and maintained at the facility as described in the Application documentation (Section 3.8 of EIS), or as may be varied by a licence condition.
- 3.24.2 All buildings constructed on the facility shall have regard to the guidance given in the Department of Environment 1994 publication "*Protection of New Buildings and Occupants from Landfill Gas*" and any subsequent revisions.

### 3.25 Sanitary Wastewater Treatment Plant

The licensee shall maintain a Sanitary Wastewater Treatment plant at the facility for the treatment of sanitary wastewater arising on-site. The system shall satisfy the relevant criteria set out in the Wastewater Treatment Manual, Treatment Systems for Single Houses, published by the Environmental Protection Agency. This system shall be included in the sites maintenance program and desludged at least annually. Sludges shall be removed for agreed disposal/recovery. Effluent from the system shall be discharged to the leachate collection system.

### 3.26 Groundwater

- 3.26.1 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).
- 3.26.2 Groundwater monitoring wells shall be constructed having regard to the guidance given in the Agency's landfill manual "*Landfill Monitoring*".
- 3.27 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 separator, shall be fitted with high liquid level alarms (or oil detectors as appropriate) from the date of grant of this licence.
- 3.28 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.
- 3.29 The licensee shall maintain 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.
- 3.30 The licensee shall operate a weather monitoring station on the site at a location agreed by the Agency.

**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 atmosphere in this licence shall be interpreted in the following way:
- 4.1.1 Continuous Monitoring
- (i) No 24-hour mean value shall exceed the emission limit value.
  - (ii) 97% of all 30 minute mean values taken continuously over an annual period shall not exceed 1.2 times the emission limit value.

#### 4.6 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:
- Vermin
  - Birds
  - Flies
  - 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.

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

### Condition 6. Control and Monitoring

- 6.1 Test Programme
- 6.1.1 The licensee shall prepare to the satisfaction of the Agency, a test programme for abatement equipment installed to abate emissions to atmosphere. This programme shall be submitted to the Agency in advance of implementation.
- 6.1.2 The programme, following agreement with the Agency, shall be completed within three months of the commencement of operation of the abatement equipment.
- 6.1.3 The criteria for the operation of the abatement equipment as determined by the test programme, shall be incorporated into the standard operating procedures.
- 6.1.4 The test programme shall as a minimum:

6.10 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.

6.11 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 within eighteen months of the date of grant of this licence. 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.

6.12 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, desludged as necessary and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal.

#### 6.13 Storm Water

A visual examination of the storm water discharges shall be carried out daily. A log of such inspections shall be maintained.

#### 6.14 Dust

6.14.1 The licensee shall maintain those dust monitoring locations as illustrated on Drawing No: 3369-2610 '*Site Investigation and Environmental Monitoring Locations*' of the application documentation. Any subsequent variation to these locations shall be agreed in advance with the Agency.

#### 6.15 Ground Water

6.15.1 The licensee shall maintain a minimum of 8 groundwater monitoring locations located around the circumference of the facility (at least two up-gradient of the facility).

6.15.2 The licensee shall maintain groundwater monitoring trigger levels in accordance with the requirements of Directive 1999/31/EC.

#### 6.16 Noise

The licensee shall carry out a noise survey of the site operations annually. The survey programme shall be undertaken in accordance with the methodology specified in the '*Environmental Noise Survey Guidance Document*' as published by the Agency.

#### 6.17 Pollutant Release and Transfer Register (PRTR)

The licensee shall prepare and report a PRTR for the site. The substances and/or waste 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 and amending Council Directives 91/689/EEC and 96/61/EC. 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

6.22.2 All litter control infrastructure shall be inspected on a daily basis. The licensee shall remedy any defect in the 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.

6.22.3 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.

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

6.23 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.

#### 6.24 Bird Control

Birds shall be prevented from gathering on and feeding at the facility by the use of birds of prey and/or other bird scaring techniques. The birds of prey and/or other techniques shall be in place at least two weeks prior to any waste being disposed of and shall maintain their presence every day, from before dawn to after dark, until the waste activities cease and all the waste is capped to the written satisfaction of the Agency. The licensee shall consult with the National Parks and Wildlife Service of the Department of Environment, Heritage & Local Government in relation to ecologically sensitive control strategies.

#### 6.25 Odour Control

6.25.1 All odorous or odour-forming wastes shall be covered as soon as practicable and in any case at the end of the working day.

6.25.2 When siting and operating landfill gas infrastructure, regard shall be had to the potential for, and mitigation of, odour nuisance. This matter is to be addressed in the relevant Specified Engineering Works proposals as required by Condition 3.7.

#### 6.26 Operational Controls

6.26.1 Unless otherwise agreed by the Agency only one working face shall exist at the landfill at any one time for the deposit of waste other than cover or restoration materials.

6.26.2 Unless otherwise agreed in advance by the Agency, the working face of the landfill shall be no more than 25 metres long and 25 wide (i.e. <math>625\text{m}^2</math> surface area), no more than 2.5 metres in height after compaction, and have a slope no greater than 1 in 3

6.26.3 All waste deposited at the working face shall be compacted, using a steel wheeled compactor, and covered as soon as is practicable and at any rate prior to the end of the working day.

6.26.4 The working face shall, at the end of the each day, be covered with suitable daily cover to ensure control of odour, flies and litter.

6.26.5 Unless otherwise agreed in writing, daily cover shall be replaced by Intermediate Cover in any area of an active cell where a new covering lift of waste is not proposed within 7 days.

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

6.26.7 Wastes once deposited and covered shall not be excavated, disturbed or otherwise picked over with the exception of works associated with the construction and

- 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 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 Landfill Waste Acceptance and Characterisation Procedures

- 8.1.1 Only residual waste that has been subject to adequate pre-treatment is permitted to be accepted for disposal at the landfill facility after 16th July 2009.
- (i) Treatment shall, as a minimum, reflect any published EPA guidance.
  - (ii) This requirement may, subject to the agreement of the Agency, 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.
- 8.1.2 For Biodegradable Municipal Waste (BMW) the following pre-treatment requirements must be demonstrated:-
- (i) By 1st January 2010 a minimum of 50% of all BMW accepted at the facility shall be biologically pre-treated (including diversion).
  - (ii) By 1st January 2013 a minimum of 70% of all BMW accepted at the facility shall be biologically pre-treated (including diversion).
  - (iii) By 1st January 2016 a minimum of 90% of all BMW accepted at the facility shall be biologically pre-treated (including diversion).
- 8.1.3 Stabilised waste accepted at the facility must achieve a biological stability standard published, or agreed, by the EPA.
- 8.1.4 The licensee is required to maintain on-site as part of their waste acceptance procedures and associated documentation, evidence to demonstrate compliance with the obligations of Condition 8.1.1, 8.1.2 & 8.1.3, which shall be available for inspection on request by Agency personnel.
- 8.1.5 The licensee shall as part of the Annual Environmental Report for the site submit a statement on the achievement of the waste acceptance and pre-treatment obligations articulated in Conditions 8.1.1 and 8.1.2, and as otherwise may be specified in national or EU policy.
- 8.1.6 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.

- 8.4.2 Prior to the acceptance of waste for composting on site, the licensee shall submit a proposal detailing the specifications for the finished compost product to be agreed by the Agency. The proposal shall include details of the analysis of the compost to be carried out, and shall include as a minimum the parameters specified in Schedule C.4. Compost Monitoring.
- 8.4.3 No biodegradable waste for composting shall be deposited outside the biodegradable waste composting building.
- 8.4.4 The licensee shall ensure that the appropriate Department of Agriculture & Food authorisations for the operation of the composting plant have been obtained.
- 8.5 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.
- 8.6 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.
- 8.7 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.
- 8.8 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off.
- 8.9 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.
- 8.10 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.
- 8.11 Waste for disposal/recovery off-site shall be analysed in accordance with Schedule C: Control & Monitoring of this licence.
- 8.12 Unless approved in writing 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.
- 8.13 With the exception of use of recovered fuels as may be approved for this site by the Agency, no waste shall be burnt at the facility.
- 8.14 Without prejudice to the waste activities specifically authorised by this licence, no waste may be placed into any part of the facility without the prior agreement of the Agency.

**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 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.

## Condition 10. Closure, Restoration and Aftercare Management

- 10.1 The licensee shall restore the facility on a phased basis. Unless otherwise agreed, filled cells shall be permanently capped within twenty-four months of the cells having been filled to the required level.
- 10.2 Finished Levels/Profile
- 10.2.1 Landscaping of the facility shall be as described in the application documentation.
- 10.2.2 Unless otherwise agreed by the Agency, the finished (post settlement restored) levels of the landfill shall be as indicated in Drawing Reference No. 3369-2639 of the Application.
- 10.2.3 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.
- 10.2.4 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.
- 10.3 Final Capping
- 10.3.1 Unless otherwise agreed, the final capping shall consist of the following:-
- (i) Top soil (150 -300mm);
  - (ii) Subsoils, such that total thickness of top soil and subsoils is at least 1m;
  - (iii) Drainage layer of 0.3m thickness having a minimum hydraulic conductivity of  $1 \times 10^{-4}$  m/s or a geosynthetic material that provides equivalent transmissivity;
  - (iv) Compacted mineral layer of a minimum 0.2m thickness, overlain by a 2mm LLDPE geomembrane, or similar that provides equivalent protection; and
  - (v) Gas collection layer of natural material (minimum 0.3m) or a geosynthetic layer providing equivalent control.
- 10.4 No material or object that is incompatible with the proposed restoration of the facility shall be present within one metre of the final soil surface levels.
- 10.5 All soils shall be stored to preserve the soil structure for future use.
- 10.6 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.
- 10.7 Closure, Restoration & Aftercare Management Plan (CRAMP):
- 10.7.1 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 licence application documentation (as may be varied in this licence).
- 10.7.2 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 written agreement of the Agency. A copy of the Plan is to be held on site and available for inspection.

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.

11.5 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.

11.6 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; and
- (viii) 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.

11.7 Archaeological & Ecological Notification

Prior to the development of any undisturbed area, the advice of both the Heritage Section, and the National Parks & Wildlife Services Section, of the Department of the Environment, Heritage and Local Government shall be sought.

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 F: 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



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 2008; 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 or accidents/incidents, as may be associated with the carrying on of the activity.

12.2.2 The licensee shall arrange for the completion, by an independent and appropriate qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) to address 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 submitted to the Agency for agreement within twelve months of date of grant of this licence. The ELRA shall be reviewed as necessary to reflect any significant change on site, and in any case every three years following initial agreement. The results of the review shall be notified as part of the AER.

12.2.3 As part of the measures identified in Condition 12.2.1, the licensee shall, to the satisfaction of the Agency, make financial provision to cover any liabilities identified in Condition 12.2.2. 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.

12.2.4 Unless otherwise agreed, any revision to that part of the indemnity dealing with restoration and aftercare liabilities (refer Condition 10), 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 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Decommissioning Management Plans and Financial Provision when implementing Conditions 12.2.2 and 12.2.3 above.

## SCHEDULE A: Limitations

The following waste related processes are authorised:

- Composting
- Shredding, crushing, mixing
- Landfilling of waste
- Controlled recirculation of leachate
- Use of compost & inert waste in landfill operation
- Storage of waste
- Use of inert waste for engineering/construction purposes

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

### A.2 Waste Acceptance

**Table A.1 Waste Categories and Quantities**

WASTE TYPE <sup>Note 1</sup>	MAXIMUM (TONNES PER ANNUM) <sup>Note 2</sup>
Non-Hazardous Municipal, Commercial & Industrial wastes	360,000 Landfill <sup>Note 3</sup> 25,000 Composting Unit
Inert Waste	No limit where used in landfill engineering
<b>TOTAL</b>	<b>385,000</b>

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

**Note 2:** The individual limitation on waste processes may be varied with the agreement of the Agency subject to the overall total limit staying the same.

**Note 3:** The increased figure of 360,000 shall be permitted for a period of seven years or until the end of 2015, whichever is the sooner. After this period the intake of waste for landfilling shall revert to 120,000 tonnes per annum.

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

Total quantity of waste permitted to be disposed in the landfill facility (over authorised life of facility)	4,080,000 m <sup>3</sup>
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**B.2 Emissions to Water**

**Emission Point Reference No.:** Outlets from borrow pit and landfill sedimentation lagoons

**Name of Receiving Waters:** Cushaling River

Parameter	Emission Limit Value (mg/l)
BOD	25
Ammonia (as NH <sub>4</sub> ) <sup>Note 1</sup>	0.5
Suspended Solids	35

**Note 1:** Not applicable to borrow pit works.



**B.3 Noise Emissions**

Daytime dB(A) L <sub>Aeq</sub> (30 minutes)	Night-time dB(A) L <sub>Aeq</sub> (30 minutes)
55 <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 of any noise-sensitive location.



**C.1.3. Monitoring of Landfill Gas Emissions**

**Locations** (refer condition 6.21): Perimeter Landfill Gas boreholes <sup>Note 1</sup>  
 and  
 At least one monitoring point per cell (to be Agreed)  
 and  
 Other selected locations as may be specified

Parameter	Monitoring Frequency	Analysis Method/Technique <sup>Note 2</sup>
Methane (CH <sub>4</sub> )	Monthly	InfraRed Analyser/FID
Carbon Dioxide (CO <sub>2</sub> )	Monthly	InfraRed
Oxygen (O <sub>2</sub> )	Monthly	Electrochemical Cell
Atmospheric Pressure & Trend	Monthly	Standard method

**Note 1:** All perimeter monitoring boreholes must be installed to the standards specified in the Agency Guidance on Landfill Monitoring.

**Note 2:** Or other method agreed.



**C.1.4 Control & Monitoring of Composting Emissions**

**Emission Point Reference No.:** Composting Unit Biofilter

**Description of Treatment:** Biofiltration

Control Parameter	Monitoring	Key Provision/Equipment <sup>Note 1</sup>
<b><u>Bed Media</u></b>		
Odour assessment <sup>Note 2</sup>	Daily	Designated employee (Subjective)
Condition and depth of biofilter <sup>Note 3</sup>	Daily	Designated employee (Visual & Direct Moisture)
Moisture content	Bi-annually	Moisture gauge
pH	Bi-annually	pH probe
Ammonia	Bi-Annually (Inlet & Outlet gas)	Sampling tubes, fresh bed media
Mercaptans	Bi-Annually (Inlet & Outlet gas)	Sampling tubes, fresh bed media
Total viable counts	Annually (Inlet & Outlet gas)	Sampling equipment, fresh bed media
<b><u>Air Handling</u></b>		
Flow/Negative Air Pressure	Pressure gauge/flow	Fans/air pump

**Note 1:** The licensee shall maintain appropriate access to backup, standby and/or spares to ensure the operation and control of the abatement system.

**Note 2:** This subjective assessment should be carried out by a staff member immediately upon arriving on-site.

**Note 3:** The biofilter shall be examined to ensure that no channelling is evident, and that moisture content is adequate. Watering, turning, restructuring and the addition of supplementary bed materials, or total bed replacement shall be carried out, as required, subject to bed performance.



**C.2.3. Leachate Monitoring**

**Location:** Leachate Holding Tank, Leachate Sumps and Leachate Monitoring Points in the Cells (locations to be shown on plan referred to in Condition 6.6).

Parameter <sup>Note 1</sup>	LEACHATE <sup>Note 2</sup> Monitoring Frequency
Visual Inspection/Odour (Holding Tank only)	Daily
Leachate Levels	Weekly
BOD	Quarterly
COD	Quarterly
Chloride	Annually
Ammoniacal Nitrogen	Annually
Electrical Conductivity	Annually
pH	Annually
Metals / Non metals <sup>Note 3</sup>	Annually
Cyanide (Total)	Annually
Fluoride	Annually
List I/II Organic substances <sup>Note 4</sup>	Annually
Mercury	Annually
Sulphate	Annually
Total P/Orthophosphate	Annually
Total Oxidised Nitrogen	Annually

- Note 1:** All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.
- Note 2:** Leachate Levels to be monitored at all leachate monitoring points in the cells, collection sumps and holding tank. Leachate composition to be monitored at the leachate holding tank.
- 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.
- Note 4:** Screening for priority pollutant list substances (such as US EPA volatile and/or semi-volatile compounds). This analysis shall include those organic solvents in use in the process, which are likely through normal process operators to be diverted to the wastewater streams.

**C.2.4 Control & Monitoring of Sanitary Waste Water Treatment System**

**Emission Point Reference:** Proprietary waste water treatment plant  
**Description of Treatment:** Biological treatment of sanitary effluent

Control Parameter	Monitoring	Key Provision / Equipment <sup>Note 1</sup>
BOD removal	BOD removal efficiency (annual inlet and outlet analysis) Aeration fan operation (continuous automatic) Effluent transfer (continuous automatic)	Automated fault diagnostics with alarm, sludge & effluent pumps, fan/blower,
Solids build-up	Solids levels (Quarterly visual)	Frequent solids removal

**Note 1:** The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

**Meteorological Monitoring**

**Location:** Adjacent to administrative building.

Parameter <sup>Note 1</sup>	Monitoring Frequency	Analysis Method/Technique
Precipitation Volume	Daily	Standard
Temperature (min/max.)	Daily	Standard
Atmospheric Pressure <sup>Note 2</sup>	Daily	Standard

**Note 1:** Refer also Condition 3.29 of this licence.

**Note 2:** Monitoring frequency for this parameter may be decreased with the agreement of the Agency.



**C.4 Compost Monitoring**

Material/Emission	Frequency	Parameter	Method
Compost	Bi-annually	Metals, Organic Screen <sup>Note 1</sup> , % Organic matter, Sulphate, Chloride, Foreign matter, Coliforms, Pathogen, Moisture content	Standard Method

**Note 1:** Screening for priority pollutant list substances (such as US EPA volatile and/or semi-volatile compounds). This analysis shall include those organic solvents in use in the process, which are likely through normal process operators to be diverted to the wastewater streams.



**SCHEDULE D: Specified Engineering Works**

Specified Engineering Works
Development of the facility extension including preparatory works and lining. Final capping. Installation of Landfill Gas Management Infrastructure. Installation of Leachate Management Infrastructure. Installation of composting plant and air abatement system. Installation of ancillary Surface Water Management Infrastructure. Any other works notified in writing by the Agency.



## SCHEDULE F: Annual Environmental Report

Annual Environmental Report Content <sup>Note 1</sup>
Emissions from the facility.
Waste management record.
Waste Recovery Report.
Topographical survey.
Stability Assessment.
Remaining void, projected completion date.
Resource consumption summary.
Complaints summary.
Schedule of Environmental Objectives and Targets.
Environmental management programme – report for previous year.
Environmental management programme – proposal for current year.
Pollution emission register – report for previous year.
Pollution emission register – proposal for current year.
Noise monitoring report summary.
Meteorological data summary.
Ambient monitoring summary.
Proposed monitoring location reference drawing.
Tank and pipeline testing and inspection report.
Reported incidents summary.
Energy efficiency audit report 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).
Detailed Statement, with mass balance, of C & D wastes and compost used in construction.
Report on management and staffing structure of the facility.
Report on the programme for public information.
Reports on financial provision made under this licence.
Statement of measures in relation to prevention of environmental damage and remedial actions (Environmental Liabilities).
Statement on the costs of Landfill.
Contributions to Community Fund.
Environmental Liabilities Risk Assessment Review (every three years or more frequently as dictated by relevant on site change including financial provisions).
Any amendments to the CRAMP.
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

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