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County Wexford, Ireland

WASTE LICENCE

Waste Licence	66-1
Register Number:	
Licensee:	Wicklow County Council
Location of Facility:	Rampere Landfill, Rampere, County Wicklow

Introduction

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

This licence is for the continued operation of Rampere Landfill following lining of the proposed new cell. The licence prohibits the disposal of any waste in the unlined area of the facility. The facility is authorised to accept a maximum of 11,500 tonnes of waste per annum for disposal, including commercial and household waste and treated sewage sludge.

The conditions of the licence require the licensee to manage and operate the facility so as not to cause environmental pollution. The licensee has to install remedial works to protect the surface water and must seal the borehole AQ2 to ensure that leachate does not discharge at that point to the groundwater. The licensee is required to carry out extensive monitoring and to submit a range of reports to the Agency. The conditions of this licence set out in detail the legal constraints under which Wicklow County Council is authorised to operate this facility.

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Reasons for the Decision

The 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 not contravene any of the requirements of Section 40(4) of the Waste Management Act, 1996.

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

Part I Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Environmental Protection Agency (the Agency), under Section 40(1) of the said Act hereby grants this Waste Licence to Wicklow County Council to carry on the waste activities listed below at Rampere Landfill, Rampere, County Wicklow subject to eleven conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed waste disposal activities, in accordance with the Third Schedule of the Waste Management Act, 1996

Class 1.	Deposit on, in or under land (including landfill): This activity is limited to the landfilling of non-hazardous waste.
Class 2.	Land treatment, including biodegradation of liquid or sludge discards in soils: This activity is limited to the deposition of treated sewage sludge in the lined cell (Area 2 in Drawing RAM-LF-003-RevB).
Class 4.	Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons: This activity is limited to the deposition of treated sewage sludge in the lined cell (Area 2 in Drawing RAM-LF-003-RevB).
Class 12.	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule. This activity is limited to packaging of waste with potential for dispersal prior to disposal.
Class 13.	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced. This activity is limited to storage of Construction and Demolition waste prior to use as daily cover, in on site construction works or for restoration.

Licensed waste recovery activities, in accordance with the Fourth Schedule of the Waste Management Act, 1996

Class 2.	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes): This activity is limited to the recycling of organic materials.
Class 3.	Recycling or reclamation of metals and metal compounds: This activity is limited to the recycling of metals.
Class 4.	Recycling or reclamation of other inorganic materials: This activity is limited to recycling of inorganic materials.
Class 11.	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule: This activity is limited to the use of inert construction/demolition waste including topsoil/subsoil for use as cover, in on-site construction works
Class 13.	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced: This activity is limited to the storage of inert construction/demolition waste prior to its use as cover, in on-site construction works and in capping and restoration.

INTERPRETATION

Act	The Waste Management Act, 1996 (No. 10 of 1996).
Adequate lighting	20 lux measured at ground level.
Agreement	Agreement in writing.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
Application	The application by the licensee for this waste licence, including any other material submitted to the Agency in writing by the licensee between the date of the application and the date of grant of this licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
BATNEEC	Best Available Technology Not Entailing Excessive Cost as defined in section 5 (2) of the Act.
Biodegradable waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard.
Commercial waste	As defined in Section 5 (1) of the Act.
Condition	A condition of this licence. In any case where this licence refers to a numbered condition, the reference shall be taken to mean the condition and any sub-condition therein which the context of the reference requires that reference is made to
Containment boom	A boom which can contain spillages and prevent these from entering drains or watercourses.
Cover material	Bricks, crushed concrete, tarmac, earth, soil, sub-soil, stone, rock or other similar natural materials; or other cover material the use of which has been agreed with the Agency.
Daytime	8.00 a.m. to 10.00 p.m.
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emission	As defined in Section 5 (1) of the Act.
Emission Limit Value	Those limits, including concentration limits and deposition levels established in <i>Schedule F: Emission Limits</i> of this licence.
Environmental Pollution	As defined in Section 5 (1) of the Act.
EPA	Environmental Protection Agency

European Waste Catalogue (EWC)	The EWC is a harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 94/3/EC and any subsequent amendment published in the Official Journal of the European Community.
Facility	That area or areas defined under Condition 1.2
Green waste	Waste wood, plant matter and other vegetation.
Hazardous Waste	As defined in Section 4 (2) of the Act.
Household Waste	As defined in Section 5 (1) of the Act.
Inert waste	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.
Incident	Any reference to an incident in this licence means an incident as defined in Condition 3.1.
Industrial waste	As defined in Section 5 (1) of the Act.
Landfill	As defined in Section 5 (1) of the Act.
Landfill Gas	Gases generated from the landfilled waste.
Leachate	Any liquid percolating through the deposited waste and emitted from or contained within a landfill as defined in Section 5 (1) of the Act.
LEL (Lower Explosive Limit)	The lowest percentage concentration by volume of a mixture of flammable gas with air which will propagate a flame at 25°C and atmospheric pressure.
Licence	A Waste Licence issued in accordance with the Act.
Licensee	Wicklow County Council.
List I/II Organics	Substances classified pursuant to EC Directives 76/464/EEC and 80/68/EEC.
Liquid Waste	Any waste in liquid form and containing less than 2% dry matter
Maintain	Keep in a fit state, including such regular inspection, servicing and repair as may be necessary to adequately perform its function.
Mobile Plant	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works
Monthly	At least 12 times per year, at approximately monthly intervals.
Municipal Waste	Municipal waste as defined in Section 5 (1) of the Act.
Night-time	10.00 p.m. to 8.00 a.m.
Non-hazardous	Non-Hazardous Waste is any waste which is not a hazardous waste as defined

waste	in the Act.
Quarterly	A period of three calendar months, the first period of which commences on the date of grant of this licence
Recovery	As defined in Section 4 (4) of the Act.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments
Sludge	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment with between 2% and 14% dry matter.
Specified Emissions	Those emissions listed in <i>Schedule F: Emission Limits</i> of this licence.
Specified Engineering Works	Those engineering works listed in <i>Schedule D: Specified Engineering Works</i> of this licence.
Submit	Unless the context of this licence indicates otherwise, submit in writing to the Agency for its agreement.
Summer-Time:	As defined in Articles 1,2, and 3 of EU Directive 2000/84/EC on summer-time arrangements.
Treated Sludge	Sludge which has undergone biological, chemical or heat treatment, long-term storage or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use.
Trigger Level	A parameter value which when achieved or exceeded requires certain actions to be taken.
Waste	As defined in Section 4(1) of the Act.
Waste disposal activity	Includes the activities referred to in Section 4 of the Act and listed in the Third Schedule thereto.
Waste recovery activity	Includes the activities referred to in Section 4 of the Act and listed in the Fourth Schedule thereto.
White Goods	Refrigerators, cookers, ovens and other similar appliances.
Facility Working Day	7:30 - 18:30 Monday to Friday Summertime; 08:00 - 17:00 Monday to Friday Wintertime and 7:30 - 16:30 Saturdays.
Working Face	The area of the site in which waste other than cover material or material for the purposes of the construction of specified engineering works is being deposited.

Part II CONDITIONS

CONDITION 1 SCOPE

- 1.1. Waste activities at the facility shall be restricted to those listed and described in Part I: Activities Licensed and required by the licence.
- 1.2. Waste activities shall be restricted to the area of land outlined in red on Drawing No. RAM-LF-003-RevA, received 23/12/98. Any reference in this licence to “facility” shall mean the area thus outlined in red.
- 1.3. Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary. Every plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency.
- 1.4. This licence is for the purposes of waste licensing under the Waste Management Act 1996 only and nothing in this licence shall be construed as negating the licensee’s statutory obligations or requirements under any other enactments or regulations.
- 1.5. Where the Agency considers that a non-compliance with the Conditions of this licence has occurred, it may serve a notice on the licensee specifying:
 - a) that only those wastes as specified, if any, in the notice are to be accepted at the facility after the date set down in the notice;
 - b) that the licensee shall undertake the works stipulated in the notice, and/or otherwise comply with the requirements of the notice as set down therein, within the time-scale contained in the notice; and,
 - c) that the licensee shall carry out any other requirement specified in the notice.

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

<p><i>Reason:</i> <i>To clarify the scope of this licence.</i></p>

CONDITION 2 MANAGEMENT OF THE ACTIVITY

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

- 2.1.2 The EMS shall include as a minimum those elements specified in the Conditions 2.2 to 2.7 below:
- 2.2 Schedule of Environmental Objectives and Targets
- 2.2.1 The licensee shall, within six months from the date of grant of this licence, submit to the Agency for its agreement a Schedule of Objectives and Targets. The objectives should be specific and the targets measurable.
- 2.2.2 The Schedule shall address a five year period as a minimum and shall be reviewed and submitted annually to the Agency for its agreement.
- 2.3 Environmental Management Programme
- 2.3.1 The licensee shall, within twelve months from the date of grant of this licence, submit to the Agency for its agreement an Environmental Management Programme (EMP). The EMP shall include a time-scale for achieving the Schedule of Objectives and Targets and shall comply with any other guidance issued by the Agency.
- 2.3.2 The EMP shall include, as a minimum, the information specified in *Schedule A: Content of the Environmental Management Programme* of this licence. The EMP shall be reviewed and submitted to the Agency for its agreement annually.
- 2.4 Corrective Action
- 2.4.1 Within six months of the date of grant of this licence the licensee shall establish and maintain written Corrective Action Procedures to ensure that corrective action is taken should specified requirements to this licence not be fulfilled.
- 2.5 Awareness and Training
- 2.5.1 Within six months of the date of grant of this the licensee shall establish and maintain Awareness and Training Procedures for identifying training needs and for providing appropriate training, for personnel whose work is related to the licensed facility. Written records of training shall be maintained.
- 2.6 Management Structure
- 2.6.1. Within three months from the date of grant of this licence, the licensee shall submit written details of the management structure of the facility for the agreement of the Agency. Any proposed changes in the management structure shall be submitted in writing to the Agency for its agreement. Written details of the management structure shall include the following information:
- a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence;
 - b) details of the responsibilities for each individual named under a) above;
 - c) details of the relevant experience, competence and qualifications held by each of the persons nominated under a) above; and
 - d) contingency arrangements for the absences of the named persons from the facility.
- 2.7 Communications

- 2.7.1 Within six months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement a Communications Programme to ensure that members of the public can obtain information concerning the environmental performance of the facility at all reasonable times.
- 2.8 Annual Environmental Report
- 2.8.1 The licensee shall submit to the Agency for its agreement, within thirteen months from the date of grant of this licence, and within one month of the end of each year thereafter, an Annual Environmental Report (AER).
- 2.8.2 The AER shall include as a minimum the information specified in *Schedule B: Content of Annual Environmental Report* of this licence and shall be prepared in accordance with any relevant written guidance issued by the Agency.
- 2.9 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 suitably qualified and experienced deputy shall be present at all times during the operation of the facility.
- 2.10 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and/or experience, as required and shall be aware of the requirements of this licence.

<p>Reason: <i>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.</i></p>

CONDITION 3 NOTIFICATION AND RECORD KEEPING

- 3.1 The licensee shall make written records of the following incidents:
- any nuisance caused by the activity
 - any emission which does not comply with the requirements of this licence;
 - any trigger level specified in this licence which is attained or exceeded;
 - any indication that environmental pollution has, or may have, taken place; and,
 - any emergency.
- 3.2 The written record shall include all aspects described in Condition 10.7(a-e).
- 3.3 Unless otherwise instructed in writing by the Agency, the licensee shall:
- notify the Agency as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident;
 - submit the written record required by this condition to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident; and
 - in the event of any incident which relates to discharges to surface water, notify the Eastern Regional Fisheries Board as soon as practicable and in any case not later than 10:00am on the following working day after such an incident.

- 3.4 Should any further actions be taken after the date of written notification, as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.
- 3.5 Unless otherwise agreed by the Agency, all documentation submitted to the Agency shall:
- a) be sent to the Agency's headquarters;
 - b) comprise one original and three copies;
 - c) be formatted in accordance with any written instruction or guidance issued by the Agency;
 - d) include whatever information as is specified in writing by the Agency;
 - e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;
 - f) be submitted in accordance to the relevant reporting frequencies specified by this licence; and
 - g) in the case of results of any environmental monitoring, be accompanied by a written interpretation setting out their significance.
- 3.6 Copies of all environmental monitoring data obtained by the licensee which relates to the facility shall be forwarded to the Agency at the frequencies set out in *Schedule C: Recording and Reporting to the Agency* of this licence.
- 3.7 Unless otherwise agreed with the Agency, all documentation and records required to be made under this licence, shall be retained by the licensee.
- 3.8 The licensee shall provide additional copies of any documentation and records referred to in this licence to the Agency upon written request, within the time specified in writing by the Agency.
- 3.9 The licensee shall keep the following documents at the facility office referred to in Condition 4.5.
- a) the current waste licence relating to the facility;
 - b) the current EMS for the facility;
 - c) the previous year's AER for the facility;
 - d) all written procedures produced by the licensee which relate to the licensed activities.
- 3.10 The licensee shall maintain a written record for each load of waste arriving at the facility (other than domestic vehicles). The licensee shall record the following:
- a) the date;
 - b) the name of the carrier (including if appropriate, the waste carrier registration details);
 - c) the vehicle registration number;
 - d) the name of the producer(s)/collector(s) of the waste as appropriate;
 - e) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;
 - f) a description of the waste including the associated EWC codes;
 - g) the quantity of the waste, recorded in tonnes;
 - h) the name of the person checking the load; and,

- i) 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.
- 3.11 The licensee shall maintain a written record of the type and quantity, recorded in tonnes, of all wastes recovered or disposed of at the facility.
- 3.12 A written record shall be kept of each consignment of leachate removed from the facility. The record shall include the following:
- a) the name of the carrier;
 - b) the date and time of removal of leachate from the facility;
 - c) the volume of leachate, in cubic metres, removed from the facility on each occasion;
 - d) the name and address of the Waste Water Treatment Plant to which the leachate was transported;
 - e) any incidents or spillages of leachate during its removal or transportation.
- 3.13 The licensee shall maintain a written record of all complaints relating to the operation of the activity. Each such record shall give details of the following:
- a) date and time of the complaint;
 - b) the name of the complainant;
 - c) details of the nature of the complaint;
 - d) actions taken on foot of the complaint and the results of such actions; and,
 - e) the response made to each complainant.
- 3.14 The licensee shall assign and clearly label a unique reference code to each container at the Civic Waste Facility. A written record shall be kept for each load of waste departing from the facility. The following shall be recorded:
- a) the date on which filling of the container commenced;
 - b) the date on which the container was filled;
 - c) the name of the carrier and the vehicle registration number;
 - d) the destination of the waste (facility name and waste licence/permit number as appropriate);
 - e) a description of the waste (if recovered or rejected waste, the specific nature of the waste);
 - f) the quantity of waste, recorded in tonnes;
 - g) the name of the person checking the load; and,
 - h) the time and date of departure.
- 3.15 Provision shall be made for the transfer of environmental information specified by the Agency, in relation to the activities carried on under this licence, to the Agency's computer system within a timescale specified in writing by the Agency.

Reason : *To provide for the notification of incidents, to update information on the activity and to provide for the keeping of records.*

CONDITION 4 SITE INFRASTRUCTURE

- 4.1 The licensee shall establish all infrastructure referred to in this licence as instructed by the Agency.
- 4.2 Site Notice Board
- 4.2.1 The licensee shall provide and maintain a Site Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the identification board shall be 1200 mm by 750 mm.
- 4.2.2 The board shall clearly show:
- a) the name and telephone number of the facility;
 - b) the normal hours of opening;
 - c) the name, address and telephone number of the licence holder;
 - d) an emergency out of hours contact telephone number;
 - e) the name, address and telephone number of the operator of the facility;
 - f) the licence reference number;
 - g) where and when environmental monitoring information relating to the facility can be obtained.
- 4.3 Site Security
- 4.3.1 Within three months of the date of grant of this licence, the licensee shall review security and fencing infrastructure at the facility and submit a proposal for agreement with the Agency for the upgrading of security measures at the facility.
- 4.3.2 The licensee shall remedy any defect in the gates and/or fencing as follows:
- a) a temporary repair shall be made by the end of the working day; and,
 - b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days or as otherwise agreed with the Agency.
- 4.3.3 Gates shall be locked shut when the facility is unsupervised.
- 4.4 Site Roads and Hardstanding
- 4.4.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.
- 4.4.2 Within six months of the date of grant of this licence, the licensee shall install an impermeable surface which meets the specification set out in BS 8110 in Civic Waste Facility.
- 4.4.3 Signage to ensure effective traffic control shall be installed.
- 4.5 The licensee shall maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 4.6 The licensee shall provide and maintain a working telephone and facsimile machine in the office specified in Condition 4.5 above.
- 4.7 Inspection

- 4.7.1 Within six months of the date of grant of this licence, a Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained. The location and design of the Waste Inspection and Quarantine areas shall be agreed with the Agency.
- 4.7.2 The licensee shall ensure that 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 suitably and clearly segregated from each other and drainage from these areas shall be directed to the leachate collection system.
- 4.8 The licensee shall maintain a weighbridge at the facility. The location of the weighbridge shall be as shown on Drawing No. RAM-LF-003-RevB.
- 4.9 Wheelwash
- 4.9.1 Within six months of the date of grant of this licence, the licensee shall establish and maintain a wheelwash/dry wheel shake out at the facility.
- 4.9.2 The wheelwash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel cleaner and disposed of at the working face or to a skip.
- 4.10 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 4.11 Waste Water
- 4.11.1 Within six months of the date of grant of this licence, the licensee shall provide a further assessment of the septic tank system at the facility to demonstrate that the percolation area satisfies the criteria set out in SR6 Septic Tank Systems (NSAI 1991). If the system fails to satisfy the criteria set out in SR6, the licensee shall provide and maintain a small scale waste water treatment plant for the treatment of sewage arising at the facility. The plant shall satisfy the criteria set out in the EPA Manual on "Small Scale Treatment Systems".
- 4.12 Storage Areas
- 4.12.1 The licensee shall provide and maintain a bunded fuel storage area at the facility. The location of the fuel storage area shall be as shown on Drawing No. RAM-LF-003-RevB. Fuels shall only be stored at the agreed location.
- 4.12.2 All tank and drum storage areas shall be rendered impervious to the materials stored therein. In addition, tank and drum storage areas shall, as a minimum be bunded, either locally or remotely, to a volume not less than the greater of the following:
- a) 110% of the capacity of the largest tank or drum within the bunded area; or
 - b) 25% of the total volume of substance which could be stored within the bunded area.
- 4.12.3 All drainage from bunded areas shall be diverted for collection and safe disposal.
- 4.12.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 4.12.5 The integrity and water tightness of all the bunds, tanks and containers and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the licensee and shall be reported to the Agency within twelve 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. The licensee shall also submit to the Agency for its agreement in each case a written report

on the storage of fuels at the facility. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

4.12.6 All tanks and containers shall be labelled to clearly indicate their contents.

4.13 Within three months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement, details for the storage of fridge's at the facility.

4.14 Specified Engineering Works

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

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

4.14.3 Following the completion of all 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 include the following information;

- a) a description of the works;
- b) as-built drawings of the works;
- c) records and results of all tests carried out (including failures);
- d) where relevant a drawing and sections showing the location of all samples and tests carried out;
- e) where relevant daily records sheets/diary;
- f) name(s) of contractor(s)/individual(s) responsible for undertaking the engineering works;
- g) name(s) of individual(s) responsible for supervision of works and for quality assurance validation of works;
- h) records of any problems and the remedial works carried out; and
- i) any other information requested in writing by the Agency.

4.15 Landfill Lining:

4.15.1 The proposed new cell (Area 2 as shown in *Drawing No. RAM-LF-003-Rev B*) shall be lined to a standard which satisfies the requirements of the Landfill Directive (1993/31/EC). The side walls shall be designed and constructed to achieve an equivalent protection.

4.16 Leachate Management

4.16.1 The licensee shall install a leachate management system prior to the placement of waste in the proposed new lined cell to be located in Area 2 as shown in *Drawing No. RAM-LF-003-RevB*. The system shall provide for the abstraction/collection of leachate from the waste deposited in the new cell and its treatment at a suitable treatment works.

The licensee shall as part of the leachate management system provide and maintain a leachate storage lagoon at the facility to facilitate the storage of leachate abstracted/collected from the waste. Unless otherwise agreed with the Agency, the lagoon lining shall be a composite liner consisting of,

- an upper component consisting of a flexible membrane liner. At minimum a 2mm HDPE or equivalent flexible membrane liner should be used; and
- a lower component consisting of a 1m layer of compacted soil with a hydraulic conductivity of less than or equal to 1×10^{-9} m/s constructed in a series of compacted lifts no thicker than 250mm when compacted or a 0.5m artificial layer of enhanced soil giving equivalent protection to the foregoing also constructed in a series of compacted lifts no thicker than 250mm when compacted.

4.16.2 The leachate control and management system for the new cell shall as a minimum meet the recommendations specified in the Landfill Directive (1999/31/EC). Leachate collection pipes in the new cell shall be connected to an upriser, from which the leachate will be pumped to a leachate collection chamber.

4.16.3 Leachate levels in the waste in the new cell shall not exceed a level of 1.0m over the top of the liner in the new cell.

4.16.4 All leachate management structures on-site shall be inspected and certified fit for purpose on an annual basis by an independent and appropriately qualified chartered engineer. Any remedial works recommended in this report must be implemented within a time-scale to be agreed with the Agency.

4.16.5 All tanks for the storage and/or treatment of untreated leachate shall be fully enclosed except for inlet and outlet piping.

4.16.6 Prior to the use of the leachate storage lagoon, the licensee shall submit to the Agency for its agreement Operational Procedures for the handling of leachate during removal from the lagoon and subsequent transport/discharge to the Waste Water Treatment Plant to minimise the risk of causing nuisance or contamination of groundwater or surface waters.

4.16.7 Re-circulation of leachate or other contaminated water shall not be undertaken without the prior agreement of the Agency and shall only be undertaken within cells which have been lined to the satisfaction of the Agency.

4.17 Landfill Gas Management:

4.17.1 Within six months of the date of grant of this licence, the licensee shall submit to the Agency a proposal on the feasibility for the active collection and flaring of landfill gas at the facility.

4.17.2 All buildings constructed on the facility shall have regard to the guidance given in the Department of Environment's 1994 publication "Protection of New Buildings and Occupants from Landfill Gas" and any subsequent revisions.

4.17.3 The licensee shall within three months of the date of grant of the licence install a landfill gas alarm in the site office.

4.17.4 Until the installation of the landfill gas flare and unless otherwise agreed with the Agency, passive landfill gas management at the facility shall be carried out. Landfill Gas management and infrastructure shall meet the recommendations given in the Agency Manual on "Landfill Operational Practices".

4.18 Cover and Capping

4.18.1 Daily cover and intermediate capping shall consist of cover material which should be free draining. If clay is used then daily cover should be 150mm in depth, while intermediate capping should be 300mm in depth.

4.18.2 Within twelve months of the date of grant of this licence, the licensee shall permanently cap all completed areas of Area 3 to the required specification.

4.18.3 Final capping shall consist of the following:

- top soil (150 -300mm);
- subsoils, such that total thickness of top soil and subsoils is at least 1m;
- drainage layer of 0.5m thickness having a minimum hydraulic conductivity of 1×10^{-4} m/s;
- compacted mineral layer of a minimum 0.6m thickness with a permeability of less than 1×10^{-9} m/s or a geosynthetic material (e.g. GCL) or similar that provides equivalent protection; and
- gas collection layer of natural material (minimum 0.3m) or a geosynthetic layer.

4.18.4 Unless otherwise agreed with the Agency, filled cells shall be permanently capped to the required specification within twelve months of the cell having been filled to the required level.

4.18.5 The licensee shall maintain a stockpile of capping materials at the facility containing the requisite volume of capping materials for a six month period.

4.18.6 Within three months of the date of grant of this licence, the licensee shall submit full details of the capping installed in the reinstated area of the facility (Area 1 in Drawing No. RAM-LF-003-RevB).

4.19 Surface Water and Groundwater Management

4.19.1 The licensee shall ensure effective control of surface water run off from the facility during construction, operation and restoration.

4.19.2 Within six months of the date of the grant of licence, the licensee shall install surface water measures for:

- i) the prevention of leachate seepage into the surface water drains; and
- ii) the separation of clean surface water runoff from contaminated surface water, and discharge of contaminated surface water to the leachate storage lagoon and
- iii) the minimisation of contaminated surface water run-off arising at the facility and
- iv) the installation of subsurface toe drains as appropriate to reduce/prevent surface water or shallow groundwater ingress to the waste body to minimise leachate production and their installation downgradient of the waste body such that leachate collected is extracted/diverted for storage in accordance with (ii) above.

4.19.3 The licensee shall within six months of the date of grant of this licence, carry out an investigation and submit a report with proposals for agreement with the Agency on the viability of piping the length of the Rampere Stream adjacent to the facility and the installation of a drain network for the collection of leachate seepage from the waste body for discharge to the leachate storage lagoon.

4.19.4 Within twelve months of the date of grant of this licence the licensee shall investigate and submit a report to the Agency on the impact of any historical landfilling activities in the area to the Northwest of the existing facility. This report shall include remediation proposals for agreement of the Agency.

4.19.5 Borehole AQ2 shall be sealed in accordance with best practice within one month of the date of grant of this licence. The sealing shall be carried out under the full-time supervision of a qualified hydrogeologist.

4.20 Civic Waste Facility

4.20.1 The licensee shall provide and maintain the receptacles at the Civic Waste Facility at the locations shown in Drawing No. RAM-LF-003-RevB, unless otherwise agreed with the Agency. All receptacles shall be clearly labelled to indicate their contents.

4.20.2 Waste oils collected for recovery shall be stored as specified in Condition 4.12.2.

4.21 Soil Storage

4.21.1 Soils shall be removed and stored in the manner as described in the Agency's Manual on "Landfill Restoration and Aftercare". The storage of soils shall be in such a manner to maximise the preservation of the soil structure for future use within the facility.

4.22 Facility Boundary /Perimeter Planting

4.22.1 The existing hedgerow network that forms part of the boundary of the facility shall be retained by the licensee, unless otherwise agreed with the Agency.

4.22.2 Within twelve months of the date of grant of this licence, the licensee shall reinforce the existing hedgerows and improve the perimeter screening and landscaping by planting suitable indigenous trees, shrubs and plants.

4.23 Access Road

4.23.1 Traffic awaiting access to the landfill shall queue along the facility access road only. No traffic queuing shall be allowed on the public road.

<p>Reason: <i>To provide for the protection of the environment.</i></p>
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CONDITION 5 WASTE MANAGEMENT

5.1. Waste Acceptance

- 5.1.1. No hazardous waste (excluding waste oil collected for recovery), liquid waste, health care waste, septic tank waste, silt and dredgings, oil and water mixtures, vegetable oil, animal excrement (including paunch contents), animal blood, asbestos waste and commercial waste shall be disposed of at the facility.
- 5.1.2. Waste shall only be disposed of within the lined cell (Area 2 as shown in Drawing No. *RAM-LF-003-Rev B*).
- 5.1.3. Waste consisting mainly of green waste, white goods, glass and recyclable metals shall not be disposed of at the facility after twelve months from the date of grant of this licence.
- 5.1.4. Construction and demolition waste shall not be disposed of at the facility but can be accepted for use as daily cover, site construction works and landfill restoration.
- 5.1.5. Treated sewage sludge shall only be disposed of in the lined cell at the facility for thirty six months from the date of grant of this licence. No treated sewage sludge shall be deposited in the current filling area (Area 3 – Drawing No. *RM-LF-003-RevB*) from the date of grant of this licence.

5.2. Subject to Condition 5.1, and any requirements of Condition 5.3, only those waste types and quantities listed in *Schedule G: Waste Acceptance* of this licence shall be recovered or disposed of at the facility unless the prior agreement of the Agency has been obtained.

5.3. Waste Acceptance Procedures

- 5.3.1. Within six months of the date of grant of this licence, the licensee shall submit to the Agency for its agreement revised written procedures for the acceptance and handling of all wastes. Prior to this waste acceptance shall be carried out in accordance with those described in Attachment E of the licence application.

5.4. All wastes shall be checked at the working face to ensure that they comply with the requirements of the licence. Any wastes deemed to be in contravention of this licence and/or unsuitable for recovery or disposal at this facility shall be removed for recovery or disposal at an appropriate alternative facility. Such waste shall be stored in the Waste Quarantine Area only.

5.5. The quantity of wastes to be accepted for disposal at the landfill, shall not exceed 11,500 tonnes per annum, unless otherwise agreed in advance with the Agency.

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

5.7. Scavenging shall not be permitted at the facility.

5.8. Waste shall only be accepted at the facility between the hours of 08:00 to 18:00 Monday to Friday Summertime; 08:00 to 17:00 Monday to Friday Wintertime and 8:00 –16:00 Saturdays.

5.9. The licensee shall prior to the disposal of waste to the proposed lined cell (Area B in Drawing No. *RAM-LF-003-RevB*) provide a skip or other appropriate container in the civic amenity area for the acceptance of wastes for disposal from the public.

- 5.10. Unless the prior agreement of the Agency is given, the following shall apply at the landfill:
- a) only one working face shall exist at the landfill at any one time for the deposit of waste other than cover or restoration materials;
 - b) the working face of the landfill shall be no more than 2.5 metres in height after compaction, no more than 25 metres wide and have a slope no greater than 1 in 3; and,
 - c) all waste deposited at the working face shall be compacted as soon as is practicable and at any rate prior to the end of the working day.
- 5.11. The working face of the operational cell shall, at the end of each day, be covered with material suitable to minimise any nuisances occurring.
- 5.12. Any cover material at any location within the facility which is eroded, washed off or otherwise removed shall be replaced by the end of the working day. Within three months of the date of grant of this licence, cover material shall be placed across the whole landfill so that no waste other than cover material or material suitable for specified engineering works is exposed.
- 5.13. A steel wheeled compactor or other such vehicle as agreed with the Agency shall be used for compacting all waste other than that used for restoration or construction purposes.
- 5.14. In order to prevent the formation of voids, all large hollow objects and other large articles deposited at the facility shall be crushed, broken up, flattened or otherwise treated.
- 5.15. Wastes once deposited and covered shall not be excavated, disturbed or otherwise picked over without prior agreement from the Agency.
- 5.16. No smoking shall be allowed on the facility (other than in the site office as shown on Drawing No. RAM-LF-003-RevB).
- 5.17. Recovery
- Within six months of the date of grant of this licence, the licensee shall submit to the Agency a report examining recovery options at the facility. Unless otherwise agreed with the Agency, this report shall detail how national policy targets are to be achieved in respect of the waste types referred to below:
- 5.17.1. the separation of recyclable materials from the waste;
 - 5.17.2. the recovery of Construction and Demolition Waste;
 - 5.17.3. the recovery of metal waste and white goods including written procedures for the de-gassing of CFC's from refrigerators;
 - 5.17.4. the recovery of commercial waste, including cardboard;
 - 5.17.5. composting of biodegradable or green waste at the facility having regard to good practice and sustainability;
 - 5.17.6. the use of inert waste for cover/restoration material at the facility.
- 5.18. Waste sent off-site for recovery or disposal shall only be conveyed to a waste disposal/recovery facility, agreed by the Agency. The ultimate recovery or disposal facility for all wastes shall be agreed in advance with the Agency. All wastes removed off-site for recovery or disposal shall be transported from the facility to the consignee in a manner which will not adversely affect the environment.

Reason: *To provide for the acceptance and management of wastes authorised under this waste licence.*

CONDITION 6 ENVIRONMENTAL NUISANCES

- 6.1. The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by vermin, birds, flies, mud, dust and odours. Written records shall be made of all inspections and any actions taken as a result of these inspections.
- 6.2. The licensee shall ensure that vermin, birds, flies, mud, dust and odours do not give rise to nuisance at the facility or the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution or contravene any national statutory protection granted in respect of protected species.
- 6.3. The licensee shall ensure that the activities shall be carried out in a manner such that odours do not result in significant impairment of, or cause significant interference with amenities or the environment beyond the facility boundary.
- 6.4. 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 undue delay.
- 6.5. Litter Control
 - 6.5.1. Prior to the disposal of any waste in any cell, litter netting shall be installed and maintained around the perimeter of the active tipping area. The netting installed shall meet the guidance given in the Agency's Manual on "Landfill Operational Practices". The netting shall be kept tidy and litter trapped in the netting shall be removed as soon as practicable.
 - 6.5.2. All litter control infrastructure shall be inspected on a daily basis and the licensee shall remedy any defect in the litter netting as follows:
 - a) a temporary repair shall be made by the end of the working day; and,
 - b) a repair to the standard of the original netting shall be undertaken within three working days or as otherwise agreed with the Agency.
 - 6.5.3. Within three months of the date of grant of this licence the licensee shall submit to the Agency for its agreement proposals for the operation of the facility in adverse wind conditions.
 - 6.5.4. All loose litter accumulated within the facility and its environs, excluding that which is deposited on the working face, shall be removed subject to the agreement of the landowners and appropriately disposed of on a daily basis.
- 6.6. Any waste placed on or in the vicinity of the facility, other than in accordance with the requirements of this licence, shall be removed by the licensee immediately and in any event by 10:00am of the next working day, after such waste is discovered. Such waste shall be disposed of at an appropriate facility.
- 6.7. The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.
- 6.8. Dust Control

- 6.8.1. 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.
- 6.9. Within six months from the date of grant of this licence the licensee shall submit to the Agency for its agreement, an assessment of the effectiveness of the bird control measures at the facility. This assessment shall include, where required:
- a) proposals for additional bird control measures;
 - b) method for assessing the effectiveness of such additional measures; and
 - c) timescales for the implementation of such measures.
- 6.10. Prior to exiting the facility, all waste vehicles shall have their wheels cleaned in the wheelwash.
- 6.11. The licensee shall as a minimum apply the nuisance control measures outlined in Attachment F of the Application, unless otherwise agreed with the Agency. Where nuisance control measures are clearly not being effective, the licensee shall review the measures used and submit revised details to the Agency. In addition a review of the measures shall be carried out annually and the outcome of this review shall be incorporated into the summary report submitted to the Agency as part of the Annual Environmental Report.
- 6.12. The licensee shall apply the vermin and fly control measures outlined in Attachment F.7 of the application. Notwithstanding these measures, the licensee shall submit to the Agency for its agreement a revised and upgraded programme for the control and eradication of vermin and fly infestations at the facility. This programme should include as a minimum, details on the rodenticide(s) and insecticide(s) to be used, operator training, mode and frequency of application and measures to contain sprays within the facility boundary.

<p>Reason: To provide for the control of nuisance.</p>

CONDITION 7 EMISSIONS AND ENVIRONMENTAL IMPACTS

- 7.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule F: Emission Limits* of this licence. There shall be no other emissions of environmental significance.
- 7.2. All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.
- 7.3. The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.
- 7.4. Landfill Gas
- 7.4.1. The following are the trigger levels for landfill gas emissions from the facility measured in any service on, at or immediately adjacent to the facility and/or at any other point located outside the body of the waste:
- a) Methane, greater than or equal to 1.0% v/v; and
 - b) Carbon dioxide, greater than or equal to 1.5% v/v.

7.4.2. The concentration limits for emissions to atmosphere specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of :-

a) in the case of landfill gas flare:

Temperature 273 K, pressure 101.3 kPa, dry gas at 3% oxygen; and

b) in the case of landfill gas combustion plant:

Temperature 273 K, pressure 101.3 kPa, dry gas; 5% oxygen.

7.4.3. The landfill gas flare shall meet the emission limits values specified in *Schedule F: Emissions Limits* of this licence.

7.4.4. Emission limits for emissions to atmosphere in this licence shall be interpreted in the following way:-

7.4.4.1. 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.
- iii) No 30 minute mean value shall exceed twice the emission limit value.

7.4.4.2. Non-Continuous Monitoring

- i) For any parameter where, due to sampling/analytical limitations, a 30 minute sample is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.
- ii) For all other parameters, no 30 minute mean value shall exceed the emission limit value.
- iii) For flow, no hourly or daily mean value shall exceed the emission limit value.

7.5. Emissions to Surface Water

7.5.1. There shall be no direct discharge of untreated leachate to surface water.

7.5.2. Surface water and stormwater discharges from the facility shall not result in a significant deterioration in the quality of the receiving waters.

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

7.6. There shall be no direct emissions to groundwater.

7.7. Disposal of Leachate

7.7.1. All leachate collected at the facility shall be tankered off-site in fully enclosed road tankers and disposed of at a Waste Water Treatment Plant to be agreed with the Agency. Disposal procedures for the leachate at the waste-water treatment plant shall be in accordance with any written requirements of the Sanitary Authority.

- 7.7.2. Leachate or leachate contaminated surface water shall not be discharged to any river, stream or surface water in the area.

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

CONDITION 8 RESTORATION AND AFTERCARE

- 8.1. Within four months of the date of grant of the licence, the licensee shall submit a plan for the final profile of the facility for agreement with the Agency. The final contour level of the facility shall be a maximum of 135 m OD.
- 8.2. Within twelve months of the date of grant of the licence, the licensee shall submit Final Restoration and Aftercare Plans for the Facility which shall have regard to the requirements of the Landfill Directive (1999/31/EC) and the guidance published in the Agency's Landfill Manual: "*Landfill Restoration and Aftercare*", for agreement of the Agency.
- 8.3. Within six months of the date of grant of this licence, the licensee shall submit proposals for landfilling and restoration to achieve the final contours agreed under Condition 8.1 to the Agency for its agreement.
- 8.4. 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.
- 8.5. 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.
- 8.6. Where tree planting is proposed to be carried out above waste-filled areas, a synthetic barrier shall be used to augment the clay cap. Topsoil and subsoil depths shall be a minimum of 1m unless otherwise agreed in advance with the Agency.
- 8.7. The restoration of the landfill facility shall be completed within two years of reaching the final profile agreed under Condition 8.1 and 8.3, unless otherwise agreed with the Agency.

Reason: To provide for the restoration and aftercare of the facility.

CONDITION 9 ENVIRONMENTAL MONITORING

- 9.1. The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule E: Monitoring* of this licence and as specified in the Conditions of this licence.
- 9.2. Within three months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement, monitoring locations to detect off-site migration of landfill gas.
- 9.3. Within three months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement details of the permanent gas monitoring system to be installed in the site office and any other enclosed structures at the facility.
- 9.4. Within six months of the date of grant of this licence, the licensee shall submit proposals for the inclusion of all private wells, subject to the agreement of the well owners, within 500m of the facility, in the monitoring programme set out in *Schedule E: Monitoring* of this licence, to the Agency for its agreement.

- 9.5. Within twelve months of the date of grant of this licence, the licensee shall replace monitoring boreholes RC1a and RC2 as shown on Drawing No. RAM-LF-003-RevB.
- 9.6. Within six months of the date of grant of this licence, the licensee shall submit a groundwater contour plan in order to demonstrate groundwater flow direction beneath and in the area of the facility, which should be prepared using the existing on-site borehole inventory and information, subject to the well owners consent, available from the private wells in the area.
- 9.7. Within twelve months of the date of grant of this licence, the licensee shall submit a proposal for the installation of groundwater monitoring boreholes, subject to the agreement of landowners, to determine aquifer groundwater quality immediately downgradient of the facility.
- 9.8. Within six months from the date of grant of this licence, the licensee shall submit a written proposal on monitoring of leachate levels within the filled waste to the Agency for its agreement. The report shall include a drawing showing all leachate monitoring locations. The drawing shall also contain a unique reference number and a twelve figure national grid reference for each monitoring point.
- 9.9. Within nine months from the date of grant of this licence, the licensee shall submit a monitoring programme to the Agency for its agreement for the surface water discharged from the facility. The programme shall, at minimum, include and fulfil the requirements of Schedule E.3: Surface Water Monitoring.
- 9.10. The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and off-site points as required by the Agency. All ditches and drains located around the perimeter of the facility are to be kept clear such that monitoring can be carried out successfully.
- 9.11. The licensee shall maintain all sampling and monitoring points, and clearly label and name (including national grid number) all sampling and monitoring locations, so that they may be used for representative sampling and monitoring.
- 9.12. Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturer's instructions (if any) so that all monitoring results accurately reflect any emission or discharge or environmental parameter.
- 9.13. The licensee shall amend the frequency, locations, methods and scope of monitoring, sampling, analyses and investigations only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within a reasonable timescale nominated by the Agency.
- 9.14. Unless otherwise agreed with the Agency, a written record shall be kept of the names, qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.
- 9.15. A topographical survey including the void space shall be carried out within six months of the date of grant of this licence. It shall be repeated annually thereafter. The survey shall be in accordance with any written instructions issued by the Agency.
- 9.16. An annual biological assessment of the Rampere stream shall be undertaken. This assessment shall use appropriate biological methods such as the EPA Q-rating system for the assessment of rivers and streams. The report shall include a drawing showing the location of monitoring points, each identified by a unique number and a twelve figure grid reference.
- 9.17. Prior to any development of the undisturbed area, the advice of Dúchas the Heritage Service shall be sought. On completion of such development a report of the results of any archaeological monitoring shall be submitted to Dúchas and copied to the Agency.

- 9.18. Unless otherwise specified by this licence or agreed by the Agency, all environmental monitoring shall commence no later than two months after the date of grant of this licence.
- 9.19. Unless otherwise agreed in advance with the Agency, monitoring infrastructure which proves to be unsuitable for its purpose shall be replaced within six months of monitoring results indicating that the monitoring infrastructure is damaged or unsuitable.
- 9.20. Within six months of the date of grant of this licence, and annually thereafter, the licensee shall carry out a stability assessment of the side slopes of the facility and provide a report on that assessment to the Agency.
- 9.21. Within eighteen months of the date of grant of this licence, the licensee shall submit a monitoring programme for emissions from the landfill gas flare to the Agency for its agreement.
- 9.22. All landfill gas monitoring equipment used for monitoring landfill gas under the requirements of this licence shall be certified as being intrinsically safe.
- 9.23. Within six months of the date of grant of this licence, the licensee shall submit to the Agency an updated appropriately scaled drawing(s) showing the location of all the monitoring locations that are stipulated in this licence.
- 9.24. All on-site monitoring points as described in Condition 9.1 shall be tagged on site with their agreed sampling point codes within ten months of the granting of this licence.

<p>Reason: <i>To ensure compliance with the requirements of other conditions of this licence by provision of a satisfactory system of measurement and monitoring of emissions.</i></p>

CONDITION 10 CONTINGENCY ARRANGEMENTS

- 10.1. The licensee shall, within six months of the date of grant of this licence, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment.
- 10.2. Unless otherwise agreed with the Agency, Contingency Arrangements for the facility shall be as detailed in Attachment K1 of application.
- 10.3. The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.
- 10.4. All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.
- 10.5. No waste shall be burned within the boundaries of the facility. A fire at the facility shall be treated as an emergency. Immediate action shall be taken to extinguish it and the appropriate authorities notified.
- 10.6. In the event that monitoring of local wells (identified in Condition 9.4) indicates that the facility is having a significant adverse effect on the quantity and/or quality of the water supply this shall be treated as an incident. In the event of such an incident, the licensee shall submit to the Agency for its agreement and within a time specified in writing by the Agency, written proposals for the provision of an alternative supply of water to those affected and for remediation.

- 10.7. Unless otherwise notified in writing by the Agency, in the event that any monitoring, sampling, complaints or observations indicate that an incident has, or may have, taken place, the licensee shall immediately:
- a) identify the date, time and place of the incident;
 - b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission;
 - c) isolate the source of the emission;
 - d) evaluate the environmental pollution, if any, caused by the incident;
 - e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - f) provide a proposal to the Agency for its agreement within one month to:
 - i) identify and put in place measures to avoid reoccurrence of the incident; and
 - ii) identify and put in place any other appropriate remedial action.

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

CONDITION 11 CHARGES AND FINANCIAL PROVISIONS

11.1 Agency Charges

11.1.1 The licensee shall pay to the Agency an annual contribution of €11,601.60 (£9,137) or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Act, 1996. The licensee shall in 2003 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Public Sector Average Earnings Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 2002, the licensee shall pay a pro rata amount from the date of this licence to 31st December 2002. This amount shall be paid to the Agency within one month of the date of grant of this licence.

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

11.2 Financial Provision for Closure, Restoration and Aftercare

11.2.1 The licensee shall from a date to be set by the Agency establish and maintain a fund, or written guarantee, that is adequate to assure the Agency that the licensee is at all times financially capable of implementing the Restoration and Aftercare Plan required by Condition 8.2. The type of fund and means of its release/recovery shall be agreed by the Agency prior to its establishment.

11.2.2 The fund shall be maintained in an amount always sufficient to underwrite the current Restoration and Aftercare Plan.

11.2.3 The licensee shall revise the cost of restoration and aftercare annually and any details of the necessary adjustments to the fund must, within two weeks of the revision, be forwarded to the Agency for its agreement. Any adjustment agreed by the Agency shall be effected within four weeks of said written agreement.

11.2.4 Unless otherwise agreed any revision to the fund 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.

<p>Reason: <i>To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.</i></p>

SCHEDULE A : Content of the Environmental Management Programme

Environmental Management Programme

Items specified to be contained in an Environmental Management Plan in the Landfill Operational Practices Manual published by the Agency, or otherwise as agreed with the Agency

Timescale for achieving the objectives and targets listed in the Schedule of Objectives and Targets

Designation of Responsibility for Achieving Targets and Objectives

Other items specified by the Agency

SCHEDULE B : Content of the Annual Environmental Report

Annual Environmental Report Content ^{Note 1}

Reporting Period.

Waste activities carried out at the facility.

Quantity and Composition of waste received, disposed of and recovered during the reporting period and each previous year.

Calculated remaining capacity of the facility and year in which final capacity is expected to be reached.

Methods of deposition of waste.

Summary report on emissions.

Summary of results and interpretations of environmental monitoring, including plans and any updates of all monitoring locations including 12 digit grid references. This must include the following:

- Summary of monitoring results for key leachate indicator parameters;
- Comparison of monitoring against baseline data and relevant standards;
- Graphical presentation of the trends in the concentration of key leachate indicator parameters; and,
- an assessment and explanation of the significance of the results and trends detected.

Resource and energy consumption summary.

Proposed development of the facility and timescale of such development.

Volume of leachate produced and volume of leachate transported / discharged off-site.

Report on development works undertaken during the reporting period, and a timescale for those proposed during the coming year.

Report on restoration of completed cells/ phases.

Site survey showing existing levels of the facility at the end of the reporting period.

Estimated annual and cumulative quantities of landfill gas emitted from the facility.

Estimated annual and cumulative quantity of indirect emissions to groundwater.

Monthly water balance calculation and interpretation.

Schedule of Environmental Objectives and Targets for the forthcoming year.

Report on the progress towards achievement of the Environmental Objectives and Targets contained in previous year's report.

Full title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation.

Tank, pipeline and bund testing and inspection report.

Reported incidents and Complaints summaries.

Review of Nuisance Controls.

Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.

Any other items specified by the Agency.

Note 1 : Content to be revised subject to the agreement of the Agency after cessation of waste acceptance at the facility.

SCHEDULE C : Recording and Reporting to the Agency

Table C.1 Recurring Reports

Report	Reporting Frequency ^{Note1}	Report Submission Date
Environmental Management System Updates	Annually	One month after the end of the year reported on.
Annual Environment Report (AER)	Annually	Thirteen months from the date of grant of licence and one month after the end of each year thereafter.
Record of incidents	As they occur	Within five days of the incident.
Bund, tank and container integrity assessment	Every three years	Twelve months from the date of grant of licence and one month after end of the three year period being reported on.
Specified Engineering Works reports	As they arise	Two months prior to the works commencing.
Monitoring of landfill gas	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Surface Water Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Groundwater Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Leachate	Quarterly	Ten days after end of the quarter being reported on.
Meteorological Monitoring	Annually	One month after end of the year being reported on.
Noise Monitoring	Annually	One month after end of the year being reported on.
Assessment of Ecology of Adjoining Habitats	Every three years	Within eighteen months of the date of this licence and every three years thereafter.
Capping materials quantity	Twice a year	Ten days after the period being reported on.
Topographical survey	Annually	Within nine months of the date of grant of this licence and thereafter ten days after the period being reported on.
Slope stability monitoring	Annually	Within nine months of the date of grant of this licence and thereafter ten days after the period being reported on.
Any other monitoring	As they occur	Within ten days of obtaining results.

Note 1: Unless altered at the request of the Agency

SCHEDULE D : Specified Engineering Works

Specified Engineering Works

Development of Phases and new cell of the facility including preparatory works and lining.

Landfill cap installation, including temporary and intermediate capping, installation and all other containment works (including any containment works relating to leachate control).

Restoration and Aftercare Works including Landscaping.

Fencing and site security works.

Bunding of fuel and oil storage areas.

Paving of Civic Waste Facility

Installation of Waste Inspection and Waste Quarantine Areas

Installation of Wheelwash

Installation of landfill gas management and monitoring systems.

Installation of leachate management, detection, storage, treatment, monitoring and control systems.

Installation of alternative drinking water supplies.

Installation of groundwater control and/or monitoring systems.

Surface water management works.

Nuisance control measures

Any component separation on site

Any other works notified in writing by the Agency.

SCHEDULE E : Monitoring

Monitoring to be carried out as specified below.

E.1 Landfill Gas

Landfill gas monitoring locations shall be those as set out in Table E.1.1 and as shown in Drawing No. RAM-LF-003-RevB of the application.

Table E.1.1 Monitoring Locations – Perimeter Monitoring Locations to be agreed under Condition 9.2.

STATION
SA1B
SA2
BD5A
BD6
Perimeter Monitoring locations to be agreed.

Table E.1.2 Landfill Gas Monitoring Frequency and Technique

Parameter	Monitoring Frequency		Analysis Method ^{Note1} /Technique ^{Note2}
	Gas Boreholes/ Vents/Wells	Site Office	
Methane (CH ₄) % v/v	Monthly	Weekly	Infrared analyser/flame ionisation detector
Carbon dioxide (CO ₂)%v/v	Monthly	Weekly	Infrared analyser/ flame ionisation detector
Oxygen(O ₂) %v/v	Monthly	Weekly	Electrochemical cell
Atmospheric Pressure	Monthly	Weekly	Standard
Temperature	Monthly	Weekly	Standard

Note1: All monitoring equipment used should be intrinsically safe.

Note 2 : Or other methods agreed in advance with the Agency.

E.2 Noise

Noise monitoring locations shall be those as set out in Table E.2.1 and as shown in Figure 1 and Figure 2 in Attachment C.8 of the application.

Table E.2.1 Noise Monitoring Locations

STATION
B1
B2
B3
NSL1
NSL2

Table E.2.2 Noise Monitoring Frequency and Technique

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

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

E.3 Surface Water, Groundwater and Leachate

Surface water monitoring locations shall be those as set out in Table E.3.1 and as shown in Drawing No. RAM-LF-002-RevA of the application and of the parameters and frequencies outlined in Table E.3.4.

Table E.3.1 Surface Water Monitoring Locations

STATION	
SW1	SW4
SW2	SW5
SW3	Locations to be agreed.

Additional monitoring points to be included subject to Condition 9.9 (Discharge of diverted surface water/groundwater to the Rampere Stream). At minimum, diverted surface water/groundwater shall be monitored to the frequency and for the parameters (unless flow in that monitoring period does not allow such monitoring) indicated in Table E.3.4, at a monitoring location to be agreed with the Agency.

Groundwater monitoring locations shall be those as set out in Table E.3.2 and as shown in Drawing No. Fig 1 Rev A – New Borehole Locations of reply to Article 27 request received 29/06/01 and of the parameters and frequencies outlined in Table E.3.4.

Table E.3.2 Groundwater Monitoring Locations

STATION		
SA1A	AQ3	H4
BD5	AQ4	H4
BD6	H1	Private water supplies to be agreed under Condition 9.4.
SW5	H2	Additional Locations to be agreed under Condition 9.7.
AQ1	H3	

Leachate monitoring locations shall be those as set out in Table E.3.3 and Drawing No. RAM-LF-003-RevB of the application and of the parameters and frequencies outlined in Table E.3.4.

Table E.3.3 Leachate Monitoring Locations

LEACHATE INSPECTION MANHOLES
SA1B
SA2
BD5A

Table E.3.4 Water and Leachate - Parameters/Frequency

Parameter ^{Note 1}	SURFACE WATER Monitoring Frequency	GROUNDWATER Monitoring Frequency	LEACHATE Monitoring Frequency
Visual Inspection/Odour ^{Note 2}	Weekly	Quarterly	Quarterly
Groundwater Level	Not Applicable	Monthly	Not Applicable
Leachate Level	Not Applicable	Not Applicable	Weekly
Ammoniacal Nitrogen	Quarterly ^{Note 6}	Quarterly	Quarterly
BOD	Quarterly ^{Note 6}	Not Applicable	Quarterly
COD	Quarterly	Not Applicable	Quarterly
Chloride	Quarterly	Quarterly	Quarterly
Dissolved Oxygen	Quarterly	Quarterly	Not Applicable
Electrical Conductivity	Quarterly ^{Note 6}	Quarterly	Quarterly
PH	Quarterly ^{Note 6}	Quarterly	Quarterly
Total Suspended Solids	Quarterly ^{Note 6}	Not Applicable	Not Applicable
Temperature	Quarterly ^{Note 6}	Monthly	Quarterly
Boron	Not Applicable	Annually	Annually
Cadmium	Annually	Annually	Annually
Calcium	Annually	Annually	Annually
Chromium (Total)	Annually	Annually	Annually
Copper	Annually	Annually	Annually
Cyanide (Total)	Not Applicable	Annually	Annually
Fluoride	Not Applicable	Annually	Annually
Iron	Annually	Quarterly	Annually
Lead	Annually	Annually	Annually
List I/II organic substances ^{Note 3}	Note 8	Note 8	Note 8
Magnesium	Annually	Annually	Annually
Manganese	Annually	Annually	Annually
Mercury	Annually	Annually	Annually
Potassium	Annually	Quarterly	Annually
Sulphate	Annually	Annually	Annually
Sodium	Annually	Quarterly	Annually
Total Alkalinity	Annually	Annually	Annually ^{Note 5}
Total Phosphorus / orthophosphate	Annually ^{Note 6}	Annually	Annually
Total Oxidised Nitrogen	Annually	Quarterly	Quarterly
Total Organic Carbon	Not Applicable	Quarterly	Not Applicable
Residue on evaporation	Not Applicable	Annually	Not Applicable
Zinc	Annually	Annually	Annually
Phenols	Not Applicable	Quarterly	Not Applicable
Faecal Coliforms ^{Note 4}	Not Applicable	Quarterly	Annually
Total Coliforms ^{Note 4}	Not Applicable	Quarterly	Annually
Biological Assessment	Annually ^{Note 7}	Not Applicable	Not Applicable

Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures. The testing laboratory and the testing procedures shall be agreed with the Agency in advance.

Note 2: Where there is evident gross contamination of leachate, additional samples should be analysed.

- 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). In cases where large quantities of harbour dredgings have been accepted at the facility it is recommended to analyse for organotin compounds. Where there is reason to suspect organophosphorous contamination it is recommended to also scan for these compounds.
- Note 4:** In the case where groundwater is extracted for drinking water, if there is evidence of bacterial contamination, the analysis at up gradient and downgradient monitoring points should include enumeration of total bacteria at 22°C and 37°C and faecal streptococci.
- Note 5:** Only to be analysed in instances of on-site treatment of leachate.
- Note 6:** Discharge of diverted surface water/groundwater, at a monitoring location to be agreed in accordance with Condition 9.9, shall be monitored on a quarterly basis for these parameters unless flow in that month does not allow such monitoring.
- Note 7:** Appropriate biological methods (such as EPA Q-Rating System to be used for the assessment of rivers and streams).
- Note 8:** Surface Water: Once off for List I/II organic substances from representative upstream and downstream locations and thereafter as required by the Agency. Groundwater: Annually from representative upgradient borehole and two representative downgradient boreholes. Leachate: Annually from a representative sampling location.

E.4 Meteorological Monitoring

Table E.4.1 Meteorological Monitoring:

Data to be obtained form the location specified in Attachment J6 of the Application.

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

E.5 Landfill Gas Flare and/or Utilisation Plant

Monitoring of the landfill gas flare or combustion plant to be installed under Condition 4.17 shall be carried out at those locations set out in Table E.5.1. Monitoring points to be agreed with the Agency prior to the operation of the plant.

Table E.5.1 Landfill Gas Flare/Combustion Plant

MonitoringParameter	Monitoring Frequency	Analysis Method ^{Note1} /Technique ^{Note2}
Inlet		
Methane (CH ₄) % v/v	Weekly	Infrared analyser/flame ionisation detector
Carbon dioxide (CO ₂)%v/v	Weekly	Infrared analyser/ flame ionisation detector
Oxygen (O ₂) %v/v	Weekly	Infrared analyser
Outlet		
Volumetric Flow rate	Biannually	Pitot Tube Method
SO ₂	Biannually	Flue gas analyser
NO _x	Biannually	Flue gas analyser
CO	Continuous	Flue gas analyser
Particulates	Annually	Isokinetic/Gravimetric
TA Luft Class I, II, III organics	Annually	Adsorption/Desorption / GC /GCMS ^(Note 3)
Hydrochloric acid	Annually	Impinger / Ion Chromatography
Hydrogen fluoride	Annually	Impinger / Ion Chromatography

Note1: All monitoring equipment used should be intrinsically safe.

Note 2: Or other methods agreed in advance with the Agency.

Note 3: Test methods should be capable of detecting acetonitrile, dichloromethane, tetrachlorethylene and vinyl chloride as a minimum.

SCHEDULE F : Emission Limits

F.1 Noise Emissions: (Measured at the monitoring points indicated in *Table E.2.1*).

Day dB(A) L _{Aeq} (30 minutes)	Night dB(A) L _{Aeq} (30 minutes)
55	45

F.2 Landfill Gas Concentration Limits: (Measured in any building on or adjacent to the facility).

Methane	Carbon Dioxide
20 % LEL (1% v/v)	1.5 % v/v

F.3 Emission Limits Values for Landfill Gas Flare and/or Utilisation Plant

Emission Point reference nos: (to be agreed with the Agency)

Location: Landfill flarestacks and/or Gas Combustion Plant.

Volume to be emitted: to be agreed.

Minimum discharge height: to be agreed.

Parameter	Emission Limit Value
Nitrogen oxides as (NO ₂)	500 mg/m ³
CO	650 mg/m ³
Particulates	130 mg/m ³
TA Luft Organics Class I ^(Note 1)	20 mg/m ³ (at mass flows > 0.1 kg/hr)
TA Luft Organics Class II ^(Note 1)	100 mg/m ³ (at mass flows > 2 kg/hr)
TA Luft Organics Class III ^(Note 1)	150 mg/m ³ (at mass flows > 3kg/hr)
Hydrogen Chloride	50 mg/m ³ (at mass flows > 0.3 kg/h)
Hydrogen Fluoride	5 mg/m ³ (at mass flows > 0.05 kg/h)

Note 1: In addition to the above individual limits, the sum of the concentrations of Class I, II and III shall not exceed the Class III limits.

SCHEDULE G : Waste Acceptance

G.1 Waste Acceptance

Table G.1 Waste Categories and Quantities

WASTE TYPE	MAXIMUM TONNES PER ANNUM FOR DISPOSAL ^{Note 1}
Treated Sewage Sludge	500
Household & Commercial	11,000
Industrial Non-Hazardous	0
TOTAL	11,500 ^{Note 2}

Note 1: The maximum annual tonnage of individual waste types listed in Table G.1 for disposal at the landfill may be altered subject to the agreement of the Agency provided that the total maximum tonnage deposited does not exceed 11,500 tonnes per annum.

Note 2: Construction and demolition waste shall not be disposed of at the facility but can be accepted for use as daily cover, site construction works and landfill restoration in addition to the quantity noted here.

Sealed by the seal of the Agency on this the 15th day of April, 2002

PRESENT when the seal of the Agency
was affixed hereto:

Anne Butler **Director/Authorised Person**