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WASTE LICENCE

Proposed Decision

Licence Register Number:	W199-1
Applicant:	Bord na Móna Energy Limited
Location of Facility:	Srahmore, Attavally, Bangor-Erris, Co Mayo

INTRODUCTION

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

“Bord na Móna Energy Ltd (BnM) are applying for a waste licence for a peat disposal area at Srahmore, near Bangor, Co Mayo. The application related to the placement of c.450,000m³ of peat waste excavated from the development of the Shell Corrib Gas Field Terminal at the nearby Bellanaboy Bridge site. The peat which is from a 3000 to 5000 year old Atlantic Blanket Bog will be transported by road in trucks to the BnM deposit area. It is anticipated that the peat transport and deposit will take place over a 6 month period, spread out over two seasons. The Srahmore facilities will comprise, *inter alia*, a peat reception area, fuel services, truck parking, internal haul roads, sedimentation ponds, wheelwash, weighbridge, office and support buildings. Peat delivered to the site will be deposited by the haulage trucks in a reception area and then transferred by loader to special low ground-bearing-pressure tractor & trailer (Haku) for transport to the deposit area. Peat will be placed in a layer up to 1.8m thick in a shallow 63ha bowl structure in the Srahmore bog and allowed to revegetate. All drainage from the site will be collected and treated prior to discharge to local river systems. The rehabilitation plan for the site is in keeping with the overall BnM rehabilitation plan for the Mayo cut-over bogs.”

The licence sets out in detail the conditions under which Bord na Móna Energy Ltd will operate and manage this facility.

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GLOSSARY OF TERMS

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Acts 1996 to 2003, (the Acts), unless otherwise defined in this section.

Adequate lighting	20 lux measured at ground level.
AER	Annual Environmental Report.
Agreement	Agreement in writing.
Annually	At approximately twelve monthly intervals.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
Application	The application by the licensee for this licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
BAT	Best Available Techniques.
Bi-annually	All or part of a period of six consecutive months.
Biennially	Once every two years.
BOD	5 day Biochemical Oxygen Demand.
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
COD	Chemical Oxygen Demand.
Construction and Demolition Waste	All wastes which arise from construction, renovation and demolition activities.
Containment boom	A boom which can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
Daily	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.
Day	Any 24 hour period.
Daytime	0800 hrs to 2100 hrs.
dB(A)	Decibels (A weighted).
DO	Dissolved Oxygen.
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.
EMP	Environmental Management Programme.
Emission Limits	Those limits, including concentration limits and deposition levels established in <i>Schedule B</i> of this licence.
EPA	Environmental Protection Agency.
European Waste Catalogue (EWC)	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.
Fortnightly	At least 20 measurements in a calendar year with at least one measurement in any one week.
Hours of Operation	The hours during which the facility is authorised to be operational.
Hours of Waste Acceptance	The hours during which the facility is authorised to accept waste.
ICP	Inductively Coupled Plasma Spectroscopy.
Incident	The following shall constitute an incident for the purposes of this licence: <ul style="list-style-type: none"> a) an emergency; b) any emission which does not comply with the requirements of this licence; c) any exceedence of the daily duty capacity of the waste handling equipment; d) any trigger level specified in this licence which is attained or exceeded; and, e) any indication that environmental pollution has, or may have, taken place.
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.
Initial development works	Means such works, actions or constructions as may be specified, which for the purposes of environmental protection and safe construction and operation of the facility, have to be carried out in the initial stages of site development, and in any case prior to the commencement of acceptance waste for disposal.
Landfill Directive	Council Directive 1999/31/EC.
Leq	Equivalent continuous sound level.
Liquid Waste	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
List I	As listed in the EC Directives 76/464/EEC and 80/68/EEC and amendments.
List II	As listed in the EC Directives 76/464/EEC and 80/68/EEC and amendments.
Local Authority	Mayo County Council.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to adequately perform its function.
Mass Flow Limit	An Emission Limit Value which is expressed as the maximum mass of a substance which can be emitted per unit time.
Mass Flow Threshold	A mass flow rate, above which, a concentration limit applies.
Mobile Plant	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.

Monthly	A minimum of 12 times per year, at approximately monthly intervals.
Night-time	2100 hrs to 0800 hrs.
Noise Sensitive Location (NSL)	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.
Oil Separator	Device installed according to the draft European Standard prEN 858 (Installations for the separation of light liquids, e.g. oil and petrol).
PDA	Peat Deposit Area.
Quarterly	All or part of a period of three consecutive months beginning on the first day of January, April, July or October.
Regional Fisheries Board	North West Regional Fisheries Board.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
SOP	Standard Operating Procedure.
Standard Methods	As detailed in “Standard Methods for the Examination of Water and Wastewater”, (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed. 1998, American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or, an alternative method as may be agreed in writing by the Agency.
The Agency	Environmental Protection Agency.
TOC	Total Organic Carbon.
Trigger Level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Weekly	During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with at least one measurement in any one week.
Working Face	The area of the site in which waste is being deposited.
WWTP	Waste Water Treatment Plant.

DECISION & REASONS FOR THE DECISION

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 will not contravene any of the requirements of Section 40(4) of the Waste Management Acts 1996 to 2003.

Proposed Decision

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

PART I SCHEDULE OF ACTIVITIES LICENSED

In pursuance of the powers conferred on it by the Waste Management Acts 1996 to 2003, the Environmental Protection Agency (the Agency) proposes, under Section 40(1) of the said Acts to grant this Waste Licence to Bord na Móna Energy Ltd to carry on the waste activity listed below at Srahmore, Attavally, Bangor-Erris, Co Mayo subject to conditions, with the reasons therefore 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 Acts 1996 to 2003

Class 1.	Deposit on, in or under land (including landfill). <i>This activity is limited to the deposit of peat and associated natural material.</i>
Class 4.	Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons. <i>This activity is limited to the operation of the silt settlement lagoons.</i>
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. <i>This activity is limited to the storage of peat and associated natural material prior to deposit on site.</i>

PART II CONDITIONS

CONDITION 1. Scope

- 1.1 The installation/facility shall be controlled, operated, and maintained and emissions shall take place as set out in this licence. All programmes required to be carried out under the terms of this licence, become part of this licence.
- 1.2 For the purposes of this licence, the installation/facility is the area of land outlined in red on Drawing Ref. Figure 2 – Site Plan, in Attachment A to the Waste Licence Application. Any reference in this licence to “installation/facility” shall mean the area thus outlined in red.
- 1.3 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in
- (a) a material change or increase in:
 - The nature or quantity of any emission,
 - The abatement/treatment or recovery systems,
 - The range of processes to be carried out,
 - The fuels, raw materials, intermediates, products or wastes generated, or
 - (b) any changes in:
 - Site management infrastructure or control with adverse environmental significance,
- shall be carried out or commenced without prior notice to, and without the prior written agreement of, the Agency.
- 1.4 This licence is for the purposes of waste licensing under the Waste Management Acts 1996 to 2003 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 Activities at this facility shall be limited as set out in *Schedule A: Limitations* of this licence. No hazardous wastes shall be disposed of at the facility.
- 1.6 Waste Acceptance Hours and Hours of Operation
- 1.6.1 Waste may be accepted at the facility peat reception area only between the hours of 0700hrs and 1900hrs Monday to Friday inclusive and 0700hrs to 1600hrs on Saturdays.
 - 1.6.2 Waste handling operations at the facility may take place only during the hours of 0700hrs and 2100hrs Monday to Friday inclusive and 0700hrs to 1800hrs on Saturdays.
 - 1.6.3 Waste shall not be accepted at the facility on Bank Holidays.

CONDITION 2. Management of the Installation/Facility

- 2.1 Installation Management
- 2.1.1 The licensee shall employ a suitably qualified and experienced installation manager who shall be designated as the person in charge. The installation manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation or as otherwise required by the Agency.
 - 2.1.2 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and

experience, as required and shall be aware of the requirements of this licence.

2.2 Environmental Management System (EMS)

2.2.1 The licensee shall establish and maintain an Environmental Management System (EMS). The EMS shall be updated on an annual basis and submitted to the Agency as part of the Annual Environmental Report (AER).

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 a schedule of Environmental Objectives and Targets. The schedule shall include time frames for the achievement of set targets. The schedule shall address a two 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).

The schedule shall as a minimum include the following objectives:

- (i) Minimisation of suspended solids movement to surface water systems via peat-land surface water drainage channels during development and operation of facility.
- (ii) Reduction of fugitive dust emissions during loading and transfer operation on the bog and during unloading operations at the peat reception area.
- (iii) Provision of measures to protect dust sensitive areas.
- (iv) Reuse of silt pond waste.
- (v) Effective spill/leak management of mobile fuelling units.
- (vi) The management of dangerous and/or listed substances (List I and List II).
- (vii) Effective management of all silt pond flow discharges during periods of high precipitation and flooding.
- (viii) Reuse of stone used in internal haul-road construction.

2.2.2.3 Environmental Management Programme (EMP)

The licensee shall, prior to the commencement of site development, submit to the Agency for agreement 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 established and maintained by the licensee. It shall include:

- (i) designation of responsibility for targets;
- (ii) the means by which they may be achieved;
- (iii) 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) (Condition 11.9).

A report on the programme, including the success in meeting agreed targets, shall be prepared and submitted to the Agency as part of the AER. Such reports shall be retained on-site for a period

of not less than seven years and shall be available for inspection by authorised persons of the Agency.

2.2.2.4 Documentation

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

2.2.2.5 Corrective Action

The licensee shall establish procedures to ensure that corrective action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for initiating further investigation and corrective action in the event of a reported non-conformity with this licence shall be defined.

2.2.2.6 Awareness and Training

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

2.2.2.7 Communications Programme

The licensee shall establish and maintain a Communications Programme to ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility.

CONDITION 3. Infrastructure and Operation

- 3.1 The licensee shall establish all infrastructure referred to in this licence prior to the acceptance of waste to the PDA or as required by the conditions of this licence.
- 3.2 Three months prior to the commencement of site development, the licensee shall submit to the Agency for its agreement a construction schedule, sequence and timescale (Construction Plan) incorporating the requirements of this licence. This Plan shall have regard to the following development phases: (i) Initial Development Works (ii) Main infrastructure development works (pre acceptance of waste for disposal), and (iii) future/planned works (e.g. future deposit bay development/phasing/closure).
- 3.3 The initial developments works at the site shall include construction of surface water silt ponds and associated surface water management infrastructure.
- 3.4 Following the completion of all surface water drainage/control/treatment works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall include the following information:-
 - a) A description of the works;
 - b) As-built drawings of the works;
 - c) Records and results of all tests carried out (including failures);
 - d) Records of any problems and the remedial works carried out to resolve those problems; and
 - e) Any other information requested in writing by the Agency.

- 3.5 Facility Notice Board
- 3.5.1 The licensee shall provide and maintain a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.
- 3.5.2 The board shall clearly show:-
- a) the name and telephone number of the facility;
 - b) the normal hours of opening;
 - c) the name of the licence holder;
 - d) an emergency out of hours contact telephone number;
 - e) the licence reference number; and
 - f) where environmental information relating to the facility can be obtained.
- 3.6 Facility Office:- The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 3.7 Weighbridge and Wheel Cleaner
- 3.7.1 The licensee shall provide and maintain a weighbridge and a wheel cleaner at the facility.
- 3.7.2 The wheel cleaner shall be used by all vehicles leaving the facility as required to ensure that no process water or waste is carried off-site. All water from the wheel cleaning area shall be directed to the waste-water interceptor.
- 3.8 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.
- 3.9 Replacement of Infrastructure:- Monitoring infrastructure which is damaged or proves to be unsuitable for its purpose shall be replaced within one month of it being damaged or recognised as being unsuitable.
- 3.10 The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.
- 3.11 All silt ponds serving the operational areas of the facility shall achieve the following performance criteria:
- Maximum flow velocity < 10 cms⁻¹
 - Silt design capacity of lagoons, minimum 75 m³ per nett ha of bog serviced.
- 3.12 Flow regulators shall be fitted to the inlets to all silt ponds to ensure the design flow capacity of the pond is not exceeded in flood events. Excess water to be discharged to the Area 7 controlled overflow zone, or as otherwise may be agreed.
- 3.13 Tank and Drum Storage Areas
- 3.13.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.
- 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 which could be stored within the bunded area
- 3.13.3 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 The integrity and water tightness of all the bunding structures and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the licensee to the satisfaction of the Agency and shall be reported to the Agency prior to their coming into service.
- 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 Silt Traps and Oil Separators: - The licensee shall install and maintain silt traps and oil separator at the facility to ensure that all surface water discharges from the facility pass through a silt trap and oil separator prior to discharge. The separator shall be a Class I full retention separator and the silt traps and separator shall be in accordance with European Standard prEN 858 (installations for the separation of light liquids).
- 3.16 All pump sumps 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), and installed as part of the initial site development works.
- 3.17 The storage area for mobile fuelling bogies shall be appropriately bunded and secured at night-time. All mobile fuelling units to be returned to this secure area each night-time or when not in use. A spill kit should be available at this location. All refuelling operations to be the sole responsibility of specifically designated and trained person(s).
- 3.18 The set-down area for the road haulage fleet fuelling trailer/truck is to be fully bunded. Crash barriers/bollards are to be appropriately located around this unit. All refuelling operations to be the sole responsibility of specifically designated and trained person(s). Re-fuelling operations are to take place within a bunded/run-off control area.
- 3.19 All fuelling guns for refuelling units to be fitted with overflow shut-off mechanisms, and 'auto-fill' clips on fuel gun triggers are to be disabled. All fuelling units must remain locked when not in use.
- 3.20 The licensee shall maintain a log of bi-annual inspections of all tractor transported fuelling units/bowsers. These inspections as a minimum should record any damage or leaks or flaws in bowsers that could result in accidental spillage.
- 3.21 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 objectives and targets for the reduction in fugitive emissions set out in Condition 2.2 of this licence.
- 3.22 The licensee shall, as part of the initial development works, install in a prominent location on the site a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.
- 3.23 The peat reception area shall act as a Waste Inspection Area. A Waste Quarantine Area shall be provided and maintained at the facility.
- 3.24 Other than re-fuelling, greasing, oil top-up and emergency repair, all vehicle/fleet maintenance is to be undertaken off-site.

CONDITION 4. Interpretation

- 4.1 Emission limit values for emissions to waters in this licence shall be interpreted in the following way:-
 - 4.1.1 Eight out of ten consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value.
 - 4.1.2 No grab sample value shall exceed 1.2 times the emission limit value.
- 4.2 Noise
 - 4.2.1 Noise from the activity shall not give rise to sound pressure levels (Leq, 15min) measured at noise sensitive locations which exceed the limit value(s).

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 The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, and/or significant interference with amenities or the environment beyond the facility/installation boundary.
- 5.3 No substance shall be discharged in a manner, or at a concentration which, following initial dilution, causes tainting of fish or shellfish.
- 5.4 There shall be no persistent tonal or impulsive component to noise measured at noise sensitive locations.
- 5.5 The licensee shall ensure that mud, dust, and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.
- 5.6 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.

CONDITION 6. Materials Handling

- 6.1 Deposit of waste shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation, standards and protocols.
- 6.2 Waste sent off-site for recovery or disposal shall be conveyed only by an authorised (where required) waste contractor. The waste shall be transported only from the site of the activity to the site of recovery/disposal in a manner which will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.
- 6.3 Waste shall be accepted at the facility, only from customers who are holders of a waste permit, where required, under the Waste Management (Collection Permit) Regulations 2001 or from other licensed/permitted facilities.

- 6.4 The licensee shall ensure that waste prior to transfer to another person shall be classified packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.
- 6.5 Waste shall be stored in designated areas, protected as may be appropriate, against spillage and leachate run-off. The waste is to be clearly labelled and appropriately segregated.
- 6.6 No waste classified as green list waste in accordance with the EU Transfrontier Shipment of Waste Regulations (Council Regulation EEC No.259/1993, as amended) shall be consigned for recovery without the prior agreement of the Agency.
- 6.7 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.
- 6.8 All wastes shall be checked at the working face. Any wastes not suitable for acceptance shall be removed for recovery or disposal at an appropriate alternative facility. Such waste shall be stored in the Waste Quarantine Area only. No waste shall be stored in the Waste Quarantine Area for more than three months.

CONDITION 7. Resource Use and Energy Efficiency

- 7.1 Prior to the acceptance of waste for deposit at the facility the licensee shall establish and operate a program to measure resources and energy use. This program shall also identify actions or measures that will be operated to maximise efficiency of use of resources and energy at this facility. A copy of this program shall be available on-site for inspection by authorised persons of the Agency and a summary report of consumption figures as well as efficiency measures/actions/innovations shall be submitted as part of the Annual Environmental Report.

CONDITION 8. Control and Monitoring

- 8.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out in *Schedule C: Control & Monitoring* of this licence.
- 8.2 All treatment/abatement, control and monitoring equipment shall be calibrated and maintained when in use, in accordance with the information submitted in the application or as otherwise approved by the Agency under the Environmental Management Programme.
- 8.3 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. Prior written agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.
- 8.4 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission or discharge.
- 8.5 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the written agreement of the Agency following evaluation of test results.

- 8.6 The licensee shall prepare a programme, to the satisfaction of the Agency, for the identification and reduction of fugitive emissions. This programme shall be included in the Environmental Management Programme.
- 8.7 Following completion of filling in each bay and bi-annually thereafter until the site has been successfully rehabilitated (refer Condition 9), the licensee shall carry out a stability assessment of the placed material. This assessment is to be supported by field measurement as necessary. The results of this assessment are to be reported as part of the AER.
- 8.8 Air
- 8.8.1 Prior to the acceptance of peat for deposit in the PDA the licensee shall submit to the Agency for agreement a proposal for dust monitoring at three dust sensitive locations.
- 8.8.2 In relation to Dust Control the licensee shall, prior to the acceptance of peat to the facility reception area, develop and implement procedures to ensure that:
- (i) in dry weather, site pavement/roads used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance,
 - (ii) loose peat handling is prevented in strong wind conditions,
 - (iii) where possible machinery use grassed/surfaced trackways,
 - (iv) headlands/turning areas/trackways are kept clean and free of loose peat,
 - (v) moving machinery maintains slow speeds when travelling along dusty headlands/exposed peat.
- 8.9 Water
- 8.9.1 The drainage system, 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. A written record shall be kept of the inspections, desludging, cleaning, disposal of associated waste products, maintenance and performance of the interceptors, bunds and drains.
- 8.9.2 The integrity and water tightness of any underground pipes and tanks and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee and shall be reported to the Agency following their installation and prior to their use. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 8.9.3 A visual examination of the surface water discharges shall be carried out daily. A log of such inspections shall be maintained.
- 8.9.4 The washing-down of plant and equipment shall take place in designated areas with suitable systems for the collection, containment and treatment of the resulting wastes and washings.
- 8.9.5 In respect of silt control the licensee shall, prior to the commencement of the construction plan for the facility prepare and implement procedures to ensure that:
- (i) drainage manholes are protected and maintained free of excessive peat,
 - (ii) headlands are kept clean and free of excessive loose peat,
 - (iii) all new manholes and outfalls are set well back from turning grounds, drivers of bog plant do not turn short (over drains) at headlands,
 - (iv) silt run-off, while piping or ditching, is minimised,

- (v) outfalls are controlled to minimise silt discharge during cleaning operations,
- (vi) drains are ditched in dry weather,
- (vii) while ditching, outfalls are blocked and ditch towards outfall,
- (viii) machine operations involved in moving the peat from the high fields to the deposit area do so in a manner that prevents excessive loss of material to intervening drains.

A copy of these procedures shall be maintained on site for inspection by Agency personnel.

8.9.6 Silt Ponds

- (i) Prior to the commencement of the Construction Plan, the licensee shall prepare an operational procedure for de-silting of the silt ponds. The procedure shall as a minimum provide for visual inspection of all ponds on a weekly basis. The de-silting roster shall be based on recommendations of such visual inspection. A log of visual inspection and de-silting shall be maintained and a summary report on the de-silting programme shall be included in the AER.
- (ii) Silt ponds serving operational bogs shall be cleaned as a minimum three times a year, at least once before winter and once in spring, and more frequently as inspections may dictate.

8.10 Groundwater

- 8.10.1 Prior to the acceptance of waste for deposit at the facility the licensee install a groundwater monitoring network around the site. The location and design of these monitoring points to be in accordance with Agency guidelines. At least one borehole to be located up-hydraulic gradient of the facility. One of the boreholes should be down gradient of the peat reception area and associated facilities; and two boreholes to be located down-hydraulic gradient of Area 6. These locations to be monitored as specified in *Schedule C: Control & Monitoring* of this licence and results reported as part of the AER.

8.11 Noise

- 8.11.1 The licensee shall carry out a noise survey of the site operations during weeks 2, 6 and 12 after the commencement of waste acceptance. The survey programme shall be undertaken in accordance with the methodology specified in the 'Environmental Noise Survey Guidance Document' as published by the Agency. The survey program must include measurement during the morning start-up period (0700hrs to 0900hrs) and the evening period (1800hrs to 2100hrs). A record of the survey results shall be available for inspection by any authorised persons of the Agency, at all reasonable times and a summary report of this record shall be included as part of the AER.
- 8.11.2 Excessive revving of truck motors during morning start-up shall be prevented. Vehicle engines are not to be left running when not in use.

CONDITION 9. Bog & PDA Rehabilitation & Aftercare

- 9.1 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery, any soil, subsoils, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.

- 9.2 Following completion of filling of the PDA the licensee shall implement the agreed bog rehabilitation plan (refer Condition 9.3).
- 9.3 Bog Rehabilitation Plan:
- 9.3.1 The licensee shall prepare, to the satisfaction of the Agency, a fully detailed and costed plan for permanent rehabilitation of the all the boglands within the licensed area. This plan shall be submitted to the Agency for agreement prior to the commencement of deposit of waste in the PDA.
- 9.3.2 The plan shall be reviewed every two years 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.
- 9.4 The Rehabilitation Plan shall include as a minimum, the following:
- 9.4.1 A scope statement for the plan; to include outcome of consultations with relevant Agencies, Authorities and affected parties (to be identified by the licensee).
- 9.4.2 The criteria which define the successful rehabilitation of the activity or part thereof, which ensures minimum impact to the environment.
- 9.4.3 A programme to achieve the stated criteria.
- 9.4.4 Where relevant, a test programme to demonstrate the successful implementation of the rehabilitation plan.
- 9.4.5 A programme for aftercare and maintenance.
- 9.5 A final validation report to include a certificate of completion for the Rehabilitation Plan, for all or part of the site as necessary, shall be submitted to the Agency within six months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

CONDITION 10. Accident, Prevention and Emergency Response

- 10.1 The licensee shall, not later than two months prior to the implementation of the Construction Plan ensure that a documented Accident Prevention Policy is in place, which will address the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment.
- 10.2 The licensee shall, not later than two months prior to the implementation of the Construction Plan, ensure that a documented Emergency Response Procedure is in place, which shall address any emergency situation which may originate on-site. This Procedure shall include provision for minimising the effects of any emergency on the environment.
- 10.3 The policy and procedure referred to in Conditions 10.1 and 10.2 shall be reviewed annually and up-dated as necessary. They shall be made available on-site for inspection by the Agency at all reasonable times.
- 10.4 In the event of an incident the licensee shall immediately:-
- (i) identify the date, time and place of the incident;
 - (ii) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
 - (iii) isolate the source of any such emission;
 - (iv) evaluate the environmental pollution, if any, caused by the incident;

- (v) identify and execute measures to minimise the emissions/malfunction and the effects thereof; and
- (vi) provide a proposal to the Agency for its agreement within one month of the incident occurring to:-
 - identify and put in place measures to avoid reoccurrence of the incident; and
 - identify and put in place any other appropriate remedial action.

CONDITION 11. Notifications, Records and Reports

- 11.1 The licensee shall make a record of any incident. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident. The record shall include all corrective actions taken to; manage the incident, minimise wastes generated and the effect on the environment, and avoid recurrence. The licensee shall as soon as practicable following incident notification, submit to the Agency the incident record.
- 11.2 A summary report of reported incidents shall be submitted to the Agency as part of the AER. The information contained in this report shall be prepared in accordance with any relevant guidelines issued by the Agency.
- 11.3 In the event of any incident which may require an emergency response by the Local Authority, the licensee shall notify the Local Authority as soon as practicable, after such an incident.
- 11.4 In the case of any incident which relates to discharges to water, the licensee shall notify the Local Authority and the North Western Regional Fisheries Board as soon as practicable after such an incident.
- 11.5 In the case of any incident which has the potential to impact the conservation objectives of NHA and/or SAC areas having taken place, the licensee shall notify the relevant local office of the the Heritage Section of the Department of Environment, Heritage & Local Government as soon as practicable after such an incident.
- 11.6 In the event that any analyses or observations made on the quality or appearance of surface water runoff should indicate that contamination has taken place, the licensee shall
 - (i) carry out an immediate investigation to identify and isolate the source of the contamination,
 - (ii) put in place measures to prevent further contamination and to minimise the effects of any contamination on the environment,
 - (iii) and notify the Agency as soon as is practicable.
- 11.7 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence.
- 11.8 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant 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. A summary of the number and nature of complaints received shall be included in the AER.
- 11.9 The licensee shall as a minimum keep the following documents at the site:-
 - (i) the licence(s) relating to the facility;
 - (ii) the current EMS for the facility;
 - (iii) the previous year's AER for the facility;

- (iv) all operational procedures required by this licence, and
 - (v) relevant correspondence with the Agency.
- 11.10 For each full calendar year from the date of grant of this licence, the licensee shall submit to the Agency, by the 31st March of the following year, an AER which shall be to the satisfaction of the Agency. This report shall include as a minimum the information specified in *Schedule D: Reports & AER Content* of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency. In addition, the first AER report shall, separately from the calendar year report, include a report covering the period from the date of grant of the licence to the 31st December of the same year.
- 11.11 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 as a minimum contain details of the following:
- 11.11.1 The tonnages and EWC Code for the waste materials imported to or sent off-site for disposal/recovery.
 - 11.11.2 The names of the agent and carrier of the waste, and their permit details (to include issuing authority and vehicle registration number).
 - 11.11.3 Details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its permit details and issuing authority.
 - 11.11.4 Written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site.
 - 11.11.5 Details of all wastes consigned abroad for Recovery and classified as 'Green' in accordance with the EU Transfrontier Shipment of Waste Regulations (Council Regulation EEC No. 259/1993, as amended). The rationale for the classification must form part of the record.
 - 11.11.6 Details of any rejected consignments.
 - 11.11.7 Details of any approved waste mixing as per Condition 6.6.

A copy of this Waste Management record shall be submitted to the Agency as part of the AER for the site.

CONDITION 12. Financial Charges and Provisions

- 12.1 Agency Charges
- 12.1.1 The licensee shall pay to the Agency an annual contribution of €13,662, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Waste Management Acts 1996 to 2003. The first payment shall be a pro-rata amount for the period from the date of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date 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 2003, 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 defraying its costs in regard to items not covered by the said annual contribution.

12.2 Cost of landfill of waste

12.2.1 The licensee shall provide a statement in writing to the Agency on an annual basis as part of the AER in respect of the determination of charges for the disposal of waste. The Statement shall be in accordance with the requirements of S.I. No. 337 of 2002 European Communities (Amendment of Waste Management (Licensing) Regulations, 2000) Regulation, 2002.

12.3 Environmental Liabilities

12.3.1 The licensee shall arrange for the completion, by an independent and appropriately qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment for the operation, which will address liabilities from authorised activities. A report on this assessment to be submitted to the Agency for agreement prior to the acceptance of peat to the PDA.

12.3.2 Within three months of agreement by the Agency under Condition 12.3.1, the licensee shall make financial provision in a form acceptable to the Agency to cover any liabilities incurred by the licensee. The amount of indemnity must always be capable of covering the liabilities identified in Condition 12.3.1.

12.3.3 The amount of indemnity, held under Condition 12.3.2 shall be reviewed and revised as necessary, but at least annually.

SCHEDULE A Limitations

A.1 Waste Acceptance

Table A.1 Waste Categories and Quantities

WASTE TYPE	MAXIMUM (m ³) ^{NOTE 1}
Peat and associated natural materials	450,000
TOTAL	450,000

Note 1: Freshly excavated peat has a density approximately equal to 1 (1m³ peat \approx 1t).



SCHEDULE B Emission Limits

B(1) Air

Activities on-site shall not give rise to dust levels off site at any Dust Sensitive Location which exceed a deposition limit of 350 mg/m²/day.

[The sampling method to be in accordance with German TA Luft Immission Standards for Particle Deposition (IW1). Dust Sensitive Locations to be agreed in accordance with Condition 8.7].



B(2) Emissions to Water

Emission Point Reference No's.: S5-1, S5-2 and combined Area 5 & Area 6 flow at Location 7.

Location: As noted on Plan 1169/01/319, Volume 3 of Waste Licence Application.

Receiving water: S5-1 & S5-2 to Owenmore River.
Location 7 to Munkin River.

Parameter	Emission Limit Value
Suspended Solids	35mg/l



B(3) Sewer

N/A



B(4) Noise

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

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



SCHEDULE C Control & Monitoring

C(1.1) Air Emission Control

N/A



C(1.2) Air Emission Monitoring

Refer Condition 8.7.



C(2.1) Emissions to Water Control

N/A



C(2.2) Emissions to Water Monitoring

Emission Point Reference No.: Location 7 (Combined outfall from Area 5 and Area 6 - S5-1 & S5-2 excepted).

Parameter	Monitoring Frequency	Analysis Method/Technique
Flow	Continuous	On-line flow meter with recorder
pH	Weekly ^{Note 1}	pH electrode/meter and recorder
Visual Inspection	Twice Daily	-
Conductivity	Continuous	Slectrode/meter and recorder
Chemical Oxygen Demand	Weekly ^{Note 1}	Standard Method
Biochemical Oxygen Demand	Quarterly	Standard Method
Suspended Solids	Daily ^{Note 1}	Gravimetric
Total Dissolved Solids	Weekly ^{Note 1}	Standard Method
Nitrite (as N)	Monthly	Standard Method
Nitrates (as N)	Monthly	Standard Method
Ammonia (as N)	Weekly ^{Note 1}	Ion selective electrode
Total Phosphorus (as P)	Monthly	Standard Method
Oils, fats & greases	Quarterly	Standard Method

Note 1: As part of the development of the surface water system the licensee shall install a composite sampler. All samples thereafter shall be collected on a 7 day 24 hour flow proportional composite sampling basis (or equivalent approved).



Emission Point Reference No's.: S5-1 & S5-2

Parameter	Monitoring Frequency ^{Note 1}	Analysis Method/Technique
pH	Weekly	pH electrode/meter
Suspended solids	Weekly (at least 2 of the sampling occasions per month to follow a heavy rainfall event)	Standard Method
COD	Weekly	Standard Method
Total Ammonia	Weekly	Standard Method
Conductivity	Weekly	Standard Method
Visual Inspection	Daily	Not Applicable

Note 1: Based on Grab Sample.

**C(3.1) Emissions to Sewer Control**

N/A



C(3.2) Emissions to Sewer Monitoring

N/A



C(4) Waste Monitoring

N/A



C(5) Noise Monitoring

Refer to Condition 8.10.



C(6) Ambient Monitoring

River-water Monitoring

Location: Munkin River, two locations (Upstream and downstream of discharge from Emission Location Reference Number 7).

Parameter	Monitoring Frequency	Analysis Method/Technique
Suspended Solids	Monthly	Standard Method
Ammonia	Monthly	Standard Method
Biological Quality (Q) Rating/Q Index	Annually ^{Note 1}	To be agreed with the Agency

Note 1: Monitoring period - June to September.



Groundwater Monitoring

Emission Point Reference No's: Boreholes identified in Condition 8.9.1

Parameter	Monitoring Frequency	Analysis Method/Technique
COD	Biannually	Standard Method
Nitrate	Biannually	Standard Method
Total Ammonia	Biannually	Standard Method
Conductivity	Biannually	Standard Method
Diesel Range Organics	Biannually	GC-MS



SCHEDULE D Reports & AER Content

Completed reports shall be submitted to:

The Environmental Protection Agency
Regional Inspectorate
John Moore Road
Castlebar
Co Mayo

or Any other address as may be specified by the Agency

Reports are required to be forwarded as set out below:

Recurring Reports:

Report	Reporting Frequency	Report Submission Date
Monitoring of emissions to water	Quarterly	Ten days after end of the quarter being reported on.
Surface Water Monitoring	Quarterly	Ten days after end of the quarter being reported on.
Complaints (where these arise)	Monthly	Ten days after end of the month being reported on.
Annual Environment Report (AER)	Annually	By March 31 of each year.

Once-Off Reports:

Report	Report Submission Date
EMP Proposal (Cond. 2.2.2.3)	Prior to the commencement of site development, thereafter as part of the AER.
Construction Plan (Cond. 3.2)	Prior to the commencement of site development.
Bog Rehabilitation Plan (Cond. 9.3)	Prior to the acceptance of peat for placement in the PDA.

ANNUAL ENVIRONMENTAL REPORT

Annual Environmental Report Content

Report Period.
Current management structure.
Waste management report.
Emissions to atmosphere summary. ^{Note 1}
Emissions to water summary. ^{Note 1}
Noise monitoring report ^{Note 1}
Groundwater monitoring summary. ^{Note 1}
Resource & Energy consumption/efficiency summary.
Schedule of Environmental Objectives and Targets.
Environmental management programme – report.
Environmental management programme – proposal.
Tank and pipeline testing and inspection report.
Complaints summary.
Reported incidents summary.
Review of nuisance controls.
Review of rehabilitation plan.
Placed peat stability assessment.
Review of Environmental Liabilities Insurance Cover.
Summary of main changes/developments/works on site in report year.
Summary of planned works for current year.
Statement regarding costs of landfill.
Any other items as may be specified by the Agency.

Note 1: To include plan showing all monitoring & emission points. Also interpretation/discussion of results.



Signed on behalf of the Agency

Director/Authorised person

Dated this 21st day of July, 2004